
International Coatings™
Creating Performance Solutions
www.iccink.com
13929 East 166th Street
Cerritos, CA 90702-7666
Tel: (562) 926-1010, Fax: (562) 926-9486

WELCOME TO INTENATIONAL COATINGS™

For over 50 years, International Coatings™ has been the industry leader in innovative printing products and industrial coatings. Recognized for our consistent quality, outstanding performance and cost-cutting value, our products are used worldwide for direct and transfer applications.

International Coatings' textile screen print inks, adhesives, primers, coatings and specialty plastic compounds have become standards in the industry and are recognized world-wide for their performance, quality and innovation.

This year, we are also introducing two new top quality products: Forever Digital Transfer Paper and Optilux® Reflectives.

Forever transfer paper is superior in quality and durability. With the variety of papers we carry, transferring designs onto textiles or hard surfaces is a cinch, and the paper truly excels in transfers onto dark backgrounds. Whether using ink-jet or laser printers or even color copiers, we carry the right Forever transfer paper.

Optilux® truly is a revolution in reflective inks. Through the use of a proprietary process, the ink actually contains light-reflecting microspheres that when printed on a textile and exposed to a focused beam of light, will reflect or return the light back to the light source in a superior fashion.

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This CD was designed to show International Coatings' main printing solutions product lines. Check out all that we have to offer. We have been proudly serving the printing industry with superior products, superior quality, and superior customer service for over 50 years. For more information about International Coatings™ and our products, please visit our website at www.iccink.com.

International Coatings™ is available worldwide through our network of distribution partners who are listed on the next page.

We have also included a brief printing "how-to" and short FAQ section at the end of the product listings. If you have more specific questions not covered in our short overview, you may go to our website at www.iccink.com and check our more extensive FAQ section there, or send a question to one of our experts via the form on the website.

DISTRIBUTOR INFO

For the most updated list of our U.S. as well as International Distributors, please log on to our website at:

www.iccink.com

Click on "Distributor Locator" for a listing of our most current Distributors. Or you can also go directly to that page by typing in:

www.iccink.com/distributorlocator.htm

INTERNATIONAL COATINGS™ DIRECT PRINT PLASTISOL INKS

International Coatings™ has the field covered in direct print plastisol inks, from puff to athletic multipurpose.

Our high quality inks are formulated to perform to the highest standards.

Multipurpose Series	Used for direct printing, cold-peel transfers, hot-peel transfers (with the addition of 500 Quick-Trans Additive) and as a flock adhesive
600LF Series Puff	For 3-D effects and dimensional printing
700 Series	Standard colors for light fabrics, HP for dark colors
900 Series for Nylon	Specially formulated for printing on tough-to-print Nylon fabrics
1100 Series for Athletic Fabrics	For printing directly on most nylon athletic garments
7600 Series	High Performance plastisol for ultra high speed automatic printing

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MULTIPURPOSE SERIES

These100% solids plastisol inks are specially formulated and can be used for direct printing, cold-peel transfers, hot-peel transfers (with the addition of 500 Quick-Trans Additive) and as a flock adhesive.

They are available in more than 40 standard colors, including 15 pre-mixed metallics and glitters. A litho backing white is also available for this series.

This ink works best on 100% cotton or white or light-colored cotton/polyester blends.

This series is available in the following colors below:

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MULTIPURPOSE SERIES PLASTISOL

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FEATURES

- A 100% solids plastisol ink formulated for use in many applications.
- Over forty standard colors, including 15 pre-mixed metallics and glitter inks.
- These inks can be used for direct printing, cold peel transfers, hot peel transfers (with the addition of 500 Quick-Trans Additive) and as a flock adhesive.
- A litho backing white is also available in this series of inks.

MULTIPURPOSE SERIES LF* COLORS

10LF Clear
12LF HP White
13LF Litho White
16LF Black
22LF Primrose
24LF Medium Yellow
25LF Process Yellow
26LF Gold
35LF Burnt Orange
37LF Dark Orange
44LF Process Magenta
46LF Scarlet
52LF Cardinal
56LF Maroon
60LF Columbia Blue
62LF Light Blue
63LF Process Cyan
65LF Ultra Blue
66LF Royal Blue
68LF Navy Blue
69LF Turquoise
71LF Lime Green
73LF Kelly Green
76LF Dark Green
83LF Tan
84LF Red Brown
86LF Light Brown
89LF Chocolate Brown
92LF Metallic Gold
96LF Metallic Silver
106LF Purple
108LF Glow-in-the-Dark
112LF Light Gray
131LF Fluorescent Pink
133LF Fluorescent Red
135LF Fluorescent Orange
137LF Fluorescent Yellow
138LF Fluorescent Green
140LF Holographic Glitter
150LF Silver Glitter
151LF Gold Glitter
152LF Red Glitter
153LF Blue Glitter
154LF Green Glitter
155LF LB Shimmer
156LF Silver Shimmer
157LF Gold Shimmer
158LF Copper Shimmer
159LF Ultra Clear Glitter Base

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Cotton and some cotton/polyester blends. Always test print fabric before beginning a production run. ***Test for bleed resistance .***
INK APPLICATION	**Direct Prints:** For softer feeling direct prints, add 5% to 25% by volume, of 710LF Softhand Additive. Reducing the ink with 1110LF Curable Reducer and using finer meshes can also greatly improve the softness of the finished print. **Transfers (cold peel)**: It is important that the inks are only gelled during the transfer printing process otherwise the inks will not have adequate adhesion during the final transfer application. **Transfers (hot peel):** Mix inks with 500 Quick-Trans Additive and printed on a hot peel release paper. Gelation temperatures are the same as cold peel transfers. This procedure is not recommended for the glitter inks or metallic inks.
TRANSFER APPLICATION	**Cold peel transfers:** 10 to 15 seconds @ 350°F to 375°F (177°C to 191°C). Medium pressure (40 lbs.) **Hot peel transfers:** 3 to 7 seconds @ 375°F to 400°F (191°C to 204° C). Medium to heavy pressure (40 lbs. to 60 lbs.)
SCREEN MESH AND EMULSION	60 - 305 t/in or 24-120 t/cm Monofilament for direct prints or transfers. 60 t/in or 24 t/cm Monofilament for 155LF LB Shimmer 95 - 125 t/in or 37 - 50 t/cm Monofilament for metallic colors 16T - 25T t/in or 6 - 10 t/cm Monofilament for glitter inks Any direct or indirect lacquer proof emulsion.
SQUEEGEE	65-70 Durometer: Sharp or beveled edge.
CURE TEMPERATURE	Direct prints: 325°F (163°C) Entire ink film. Transfers: Gelation 225°F to 260°F (107°C to 127°C). Test dryer temperatures before a production run. Wash test printed product before beginning production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If reduction in viscosity is needed in inks, use 3% to 20% by volume, of 1110LF Curable Reducer. A mixture of 1 part 710LF Softhand Additive to 4 parts 1110LF Curable Reducer, added in the same proportion as 1110LF, will result in a product that will reduce, soften, and de-tackify plastisol inks for wet on wet printing. Adding too much reducer and/or additive will reduce opacity of inks.

600 SERIES LF PUFF

Direct print 600LF Series Puff inks are creamy, easy to print and offer excellent opacity on dark fabrics.

They provide a durable, raised-ink film and can be used straight from the container.

For best results, we recommend using a soft pallet, (our Puff Pads are sold separately) to lay the puff ink more evenly unto the surface of the garment, thus promoting a more even loft.

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600 SERIES PUFF PLASTISOL

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FEATURES

- 600LF Series is a direct print plastisol puff ink that is very creamy and easy to print.
- All colors have excellent opacity on dark fabrics.
- 600LF Puff is easy to use and results in a durable, raised ink film when fused at the proper temperature.

600 SERIES LF* COLORS

600LF Puff Base
606LF Purple
608LF Glow-in-the-Dark
613LF White
616LF Black
622LF Primrose Yellow
626LF Golden Yellow
631LF FL. Pink
632LF FL. Chartreuse
633LF FL. Red
634LF FL. Magenta
635LF FL. Orange
636LF FL. Golden Yellow
637LF Orange
638LF FL. Green
646LF Scarlet
656LF Maroon
666LF Royal Blue
668LF Navy Blue
672LF Bright Green
688LF Brown

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	The 600LF direct print puff should be used right from the container without any modifications. To achieve a high, consistent puff, use a soft pallet (refer to puff pads in this product bulletin) with reduced pressure on the squeegee. If printing the puff in a multicolored design, print the puff last or spot dry before the next color. 600LF Puff inks are not low bleed inks. Testing is required for bleed resistance before beginning production on cotton/polyester blends.
SCREEN MESH AND EMULSION	60 to 125 t/in or 24 to 49 t/cm Monofilament Any direct or indirect lacquer proof emulsion. Use 35 to 80 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp, beveled or rounded edge
CURE TEMPERATURE	325°F (163°C) entire ink film. Test dryer temperatures and wash test printed products before and during a production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If necessary the ink may be thinned with 3% to 5%, by volume, 1110LF Curable Reducer or 1099LF Low Bleed Curable Reducer.

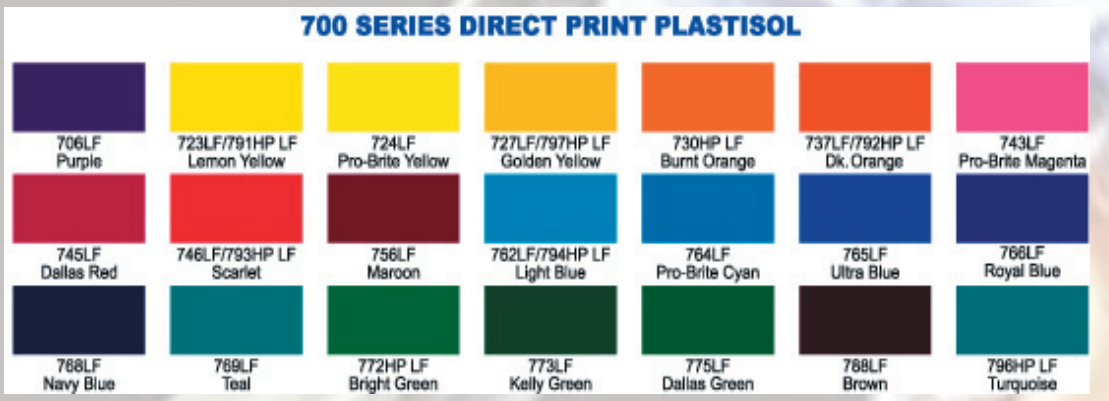
PUFF PADS

International Coatings has developed a 1/4 inch thick, soft rubber pad (30 to 35 durometer), that can be used when printing puff inks onto fabric. The puff pad will help to lay the puff ink on the surface of the garment, which promotes a more even loft. Puff ink will expand in all directions, so if there is a greater amount of ink in the fabric and less on top, the ink will expand down and not up. The pad can also aid in printing light ink colors on dark garments, this will help with color brightness and also use less ink in the process. The puff pads are manufactured so the printers can cut them to fit their pallets. To apply the pad to a pallet, spray the surface of the pallet and the back of the pad with table adhesive. Then align the pad with the pallet and press the two evenly together. Run tape around the edges of the pallet and pad when done. The pad can be used when spot flashing and can be cleaned with a mild solvent.

700 SERIES LF PLASTISOL INKS

The 700 Series includes a versatile selection of high-pigment (HP) colors for dark fabrics, standard colors for light fabrics and a soft-hand additive that can be mixed with the inks to soften the feel of a print.

The economically priced 700 series produces excellent results in almost any printing situation.
This series is available in the following colors below:



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700 SERIES PLASTISOL INKS

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FEATURES

- A plastisol inks system designed with a selection of HP (High Pigment) colors for dark fabrics, standard colors for light fabrics, and a softhand additive that can be mixed with ink to soften the feel of the print.
- Specifically formulated to help reduce ink build up on multi-color jobs.
- Economically priced, this ink is at its best on automated equipment although excellent results can be achieved in almost any printing operation.

700 SERIES LF* COLORS

706LF Purple
710LF Softhand Additive
711LF HP LB FF White
712LF Blending White
713LF HP White
714LF HP LB FF White
716LF Black
717LF Jet Black
718LF Matte Black
719LF LC Black
720LF Softhand Clear Base
723LF Lemon Yellow
724LF Pro-Brite™ Yellow
727LF Golden Yellow
730LF HP Burnt Orange
743LF Pro-Brite™ Magenta
745LF Dallas Red
746LF Scarlet
756LF Maroon
762LF Light Blue
764LF Pro-Brite™ Cyan
765LF Ultra Blue
766LF Royal Blue
768LF Navy Blue
769LF Teal
772LF HP Bright Green
773LF Kelly Green
775LF Dallas Green
788LF Brown
791LF HP Lemon Yellow
792LF HP Orange
793LF HP Scarlet
794LF HP Light Blue
796LF HP Turquoise
797LF HP Golden Yellow
731LF FL. Pink
732LF FL. Yellow
734LF FL. Cerise
735LF FL. Orange
736LF FL. Purple
738LF FL. Green
739LF FL. Blue
740LF FL. Golden Yellow

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Cotton polyester and some cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	The 700 series inks can be printed right out of the containers without any modifications. If thinning is desired for special applications, use 1110LF Curable Reducer for best results. For softer feeling prints, add 20% to 40% by volume, 710LF Softhand Additive to the ink. Reducing the ink with 1110LF Curable Reducer and using finer screen meshes can also greatly improve the softness of the finish print.
SCREEN MESH AND EMULSION	Standard colors: 110 to 305 t/in or 43-120 t/cm Monofilament High Pigment colors: 61 to 110 t/in or 24-43 t/cm Monofilament Any direct or indirect lacquer proof emulsion. Use 20 to 30 micron capillary film for light colored fabrics and 35 to 70 micron film for dark fabrics. Recommend retensionable screen frames stretched from 20 to 40 newtons for best results.
SQUEEGEE	65-70 Durometer: Sharp edge for light colored fabrics and beveled or sharp edge for dark fabrics.
CURE TEMPERATURE	325°F (163°C) entire ink film. Test dryer temperatures before a production run. Wash test printed product before beginning production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

LOW BLEED INK (LB)

Inks designated LB (low bleed) are resistant to dye migration or bleeding on polyester and polyester blend fabrics. On some problem fabrics, bleeding or dye migration may occur. Always test print the fabric before beginning production. It is best to do some long term testing on some fabrics to determine if this problem exists. Bleeding or migration of the dye from the garment or fabric into the ink film may not occur right away.

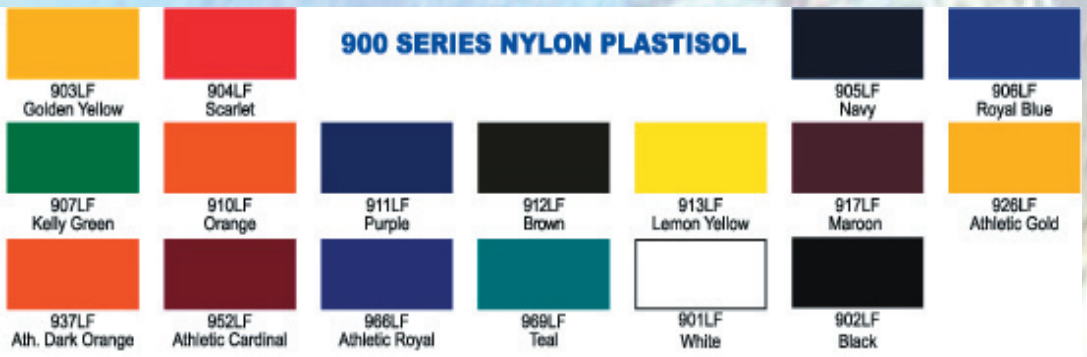
900 SERIES LF NYLON

When it comes to hard-to-print nylon, International Coatings™' 900 series inks are recognized as the industry's best. For over 30 years, this product has been an industry favorite.

They are fast-flashing, two-part ink systems specifically formulated for printing on nylon.

As easy to use as conventional plastisols, they are also just as durable.

This series is available in the following colors below:



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900 SERIES NYLON INK

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FEATURES

- A fast flashing, 2 part plastisol based ink, specifically formulated for printing on normally hard to print nylon.
- This ink has been an industry leader for over 10 years.
- As easy to use as a conventional plastisol and just as durable.

900 SERIES LF* COLORS

900LF Catalyst**
901LF White
902LF Black
903LF Golden Yellow
904LF Scarlet
905LF Navy
906LF Royal Blue
907LF Kelly Green
908LF Metallic Silver
909LF Metallic Gold
910LF Orange
911LF Purple
912LF Brown
913LF Lemon Yellow
914LF Process Blue
915LF Process Magenta
916LF Process Yellow
917LF Maroon
920LF Clear
926LF Athletic Gold
931LF FL. Pink
932LF FL. Yellow
933LF FL Red
935LF FL. Orange
937LF Athletic Dark Orange
938LF FL. Green
939LF FL. Blue
952LF Athletic Cardinal
955LF Shimmer
956LF Metallic Silver Shimmer
957LF Metallic Gold Shimmer
966LF Athletic Light Royal
969LF Teal

*LF (Lead Free) Contains less than 0.025% lead. **Correct amount of catalyst is supplied with order. Additional catalyst may be ordered separately.

Application & Storage Information

RECOMMENDED FABRICS	Nylon, cotton and some cotton/polyester blends. Always test print fabric for adhesion before beginning a production run. 900 Series inks are not low bleed inks. Testing is required for bleed resistance on cotton/polyester blends and 100% polyester.
INK APPLICATION	The 900LF series inks must be mixed with the 900LF Catalyst before printing. Catalyst is provided in 2 oz. and 8 oz. containers and should be thoroughly hand stirred into the ink to the following proportions: By volume = 16 parts ink to 1 part catalyst By weight = 20 parts ink to 1 part catalyst 1 oz. Catalyst to 1 pint of ink 2 oz. Catalyst to 1 quart of ink 8 oz. Catalyst to 1 gallon of ink Ink may be used immediately after mixing. Do not mix more ink than is needed for a job. Do not under catalyze the ink. Pot life of mixed ink is 4 to 8 hours. Over catalyzation will shorten pot life of ink.
SCREEN MESH AND EMULSION	STANDARD COLORS: 125-230 t/in Mono; 49 –90 t/cm Mono METALLIC COLORS: 86 -160 t/in Mono; 34 - 63 t/cm Mono PROCESS COLORS: 200 -355 t/in Mono; 79 - 140 t/cm Mono 955LF Shimmer = 60 t/in or 24 t/cm Monofilament Any direct or indirect lacquer proof emulsion. Use 20 to 30 micron capillary film and retensionable frames at 20 to 40 Newtons for best results.
SQUEEGEE	70-80 Durometer: Sharp edge
CURE TEMPERATURE	300°F to 325°F (149°C to 163°C) entire ink film. Test dryer temperatures before a production run. Wash test printed product before beginning production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, or 5 Gallon
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If necessary, mixed ink may be thinned with 1% to 5%, by volume, of mineral spirits or 1% to 5%, by volume, of 1110LF Curable Reducer. It is important not to use reducers that are 100% plasticizer, because they may decrease adhesion and make the finished ink film less durable.

1100 SERIES LF ATHLETIC

Very durable, high-viscosity plastisols formulated for printing directly on most nylon athletic garments, International Coatings™'1100 Series inks also can be used for cold-peel transfers and as a flock adhesive.

Available colors match the most popular colors used for athletic garment printing.

This series can be used directly from the container or for greater adhesion to nylon mesh fabrics, can be mixed with the 900 LF Catalyst (sold separately).

This series is available in the following colors below:

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1100 SERIES ATHLETIC MULTIPURPOSE

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FEATURES

- A very durable, high viscosity plastisol ink formulated for printing directly onto most athletic garments.
- Can also be used for cold peel transfers and as a flock adhesive.
- Colors available match the most popular athletic colors used for athletic garment printing.

1100 SERIES LF* COLORS

1106LF Ath. Purple
1112LF Ath. Sky Gray
1113LF Ath. White
1116LF Ath. Black
1127LF Ath. Gold
1136LF Ath. Tenn. Orange
1138LF Ath. Winter Orange
1143LF Ath. Winter Red
1146LF Ath. Scarlet
1153LF Ath. Cardinal
1156LF Ath. Maroon

1160LF Ath. Purple
1164LF Ath. Sky Gray
1166LF Ath. White
1168LF Ath. Black
1169LF Ath. Gold
1170LF Ath. Tenn. Orange
1172LF Ath. Winter Orange
1173LF Ath. Winter Red
1176LF Ath. Scarlet
1182LF Ath. Cardinal
1184LF Ath. Maroon

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Nylon mesh, cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run for adhesion and possible dye migration. 1100 Series plastisols are not low bleed inks. Testing is required for bleed resistance on cotton/polyester blends.
INK APPLICATION	The 1100 series inks can be printed directly from the container or for greater durability and adhesion on problem fabrics (micro-mesh), mix with the 900LF Catalyst. In general, if the ink can surround the fiber of the fabric being printed, the use of 900LF Catalyst may not be necessary. Catalyst must be purchased separately if needed. 900LF Catalyst is available in 2 oz. and 8 oz. containers and when used should be throughly hand stirred into the ink to the following proportions: By volume = 16 parts ink to 1 part catalyst By weight = 20 parts ink to 1 part catalyst 1 oz. Catalyst to 1 pint of ink 2 oz. Catalyst to 1 quart of ink 8 oz. Catalyst to 1 gallon of ink Ink may be used immediately after mixing. Do not mix more ink than is needed for a job. Do not under catalyze the ink. Pot life of mixed ink is 4 to 8 hours. Over catalyzation will shorten pot life of ink. 900LF Catalyst must be purchased separately.
SCREEN MESH AND EMULSION	60-160 t/in or 24-63 t/cm Monofilament 4XX to 6XX = Coarse athletic fabrics (mesh football jerseys) Any direct or indirect lacquer proof emulsion. Use 35 to 70 micron capillary film .
SQUEEGEE	75-70 Durometer: Bevel or sharp edge
CURE TEMPERATURE	325°F (163°C) Entire ink film. Test dryer temperatures before a production run. Wash test printed product before beginning production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If necessary, mixed ink may be thinned with 1% to 5%, by volume, of mineral spirits or 1% to 5%, by volume, of 1110LF Curable Reducer. It is important not to use reducers that are 100% plasticizer, because they may decrease adhesion and make the finished ink film less durable.

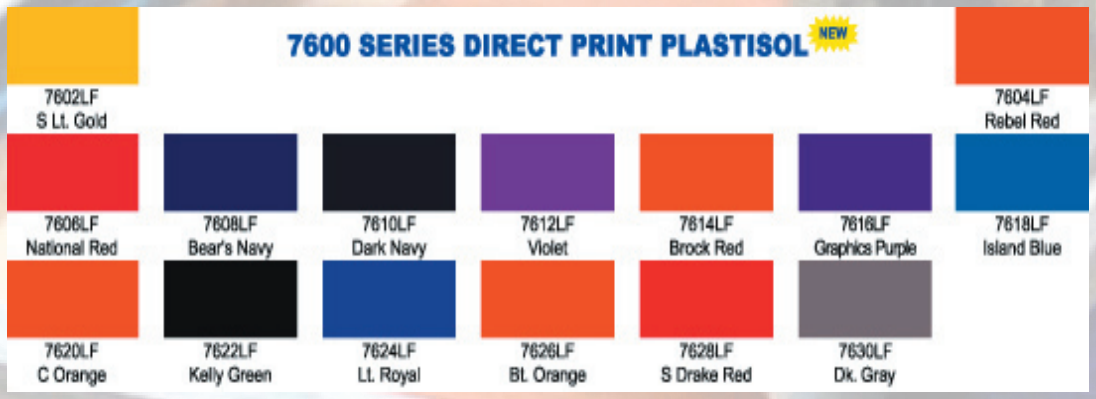
7600 SERIES LF HIGH PERFORMANCE

This 7600 series was especially formulated for high performance during ultra high speed automatic printing processes.

The ink is very creamy and short bodied, with low tack and for ease of printing, a greatly improved shear.

Product is well suited for high definition and resolution, fine detail and half-tone printing.

The 7600 series is available in the colors as shown on the chart below:



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7600 SERIES HIGH PERFORMANCE

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FEATURES

- Ready for use, High Performance plastisol formulated for Ultra High speed automatic printing.
- Very creamy and short bodied, with low tack and for ease of printing, a greatly improved shear.
- Well suited for high definition and resolution, fine detail and halftone printing.
- Faster production speeds with less pressure. Can be printed through finer mesh counts for faster production speeds with less pressure.

7600 LF* COLORS

7602 S. Lt. Gold	7616 Graphics Purple	7627 Golden Yellow
7604 Rebel Red	7618 Island Blue	7628 S. Drake Red
7606 National Red	7620 C. Orange	7630 Dark Grey
7608 Bear's Navy	7622 Kelly Green	7646 Scarlet
7610 Dark Navy	7623 Lemon Yellow	7666 Royal Blue
7612 Violet	7624 Lt. Royal	7668 Navy Blue
7614 Brock Red	7626 Bt. Orange	7673 Kelly Green

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Light colored 100% cotton or cotton/polyester blends. Use an underbase for printing dark fabrics.
INK APPLICATION	Colors should be printed without any modifications. If thinning is required, use 1099LF LB Lo-Bleed Reducer (1% to 3% by weight).
SCREEN MESH AND EMULSION	110 to 305 t/in 43 to 120 t/cm Monofilament Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	60-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325° (163°C) Entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

The 7600 inks will spot dry, with very low after flash tack, in 3 to 8 seconds depending on the spot dryer used. Too much heat / time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the ink should be just dry to the touch, with no lift off, but not totally fused. Totally fusing any of the flashed colors may cause inter-coat adhesion problems with the inks printed on top of the flashed ink. Final curing / fusing will occur in the dryer.

IMPORTANT INFORMATION

1. Use an underbase print when printing 7600 inks onto dark fabrics. Use 771LF, 774LF, 7031LF or 7034LF white as an underbase ink. To achieve a softer hand and faster production speeds, print underbase ink through finer mesh counts 230 to 305 t/in or 90 to 120 t/cm.

2. The 7600 inks are low bleed inks, not non-bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. Bleeding or dye migration may not occur right away.

3. Excessive squeegee pressure will drive the 7600 inks through the fabric being printed. Adjust squeegee pressure, angle and off-contact to insure proper shear and lay down of printed ink. Proper settings of squeegee, flood bar and off-contact will improve performance, improve screen life and squeegee durability.

4. Adding too much reducer or other additives to the 7600 inks may cause curing/fusing or increased dye migration problems.

5. The 7600 inks are easy to print when compared to other inks and can be printed through finer mesh counts. This means less ink usage and faster production times, a real money saver. Using finer mesh counts also means a softer hand of the finished product.

7600 SERIES DIRECT PRINT

PLASTISOL INK ADDITIVES

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

IMPORTANT INFORMATION

All products listed have been tested with International Coating's inks. If these products are used with another manufacturer's products, proper testing must be done to insure the performance and and durability of the mixed ink.

UltraMix® COLOR SYSTEMS

220LF PUFF ADDITIVE	Plastisol product formulated to be mixed with International Coatings standard plastisol inks to produce a raised or puff effect. Can be hand stirred into Multi-purpose, 700, 800, 1100, 7000, and 7600 Series inks. The recommended maximum ratio of additive to ink is 10% to 15% by weight. Available in quarts, gallons and 5 gallon containers.
222LF DULLING SUEDE ADDITIVE	Product can be used to reduce surface gloss in most plastisol inks or to create a suede look ink. Product can be hand stirred into International Coatings' Multipurpose, 700, 800, 1100, 7000 and 7600 Series inks. To eliminate gloss, add 2% of additive to ink by weight. To create a suede look ink, add 10% to 15% of additive to ink by weight. Available in quarts, gallons, and 5 gallon containers.
500LF QUICK-TRANS ADDITIVE	Add to Multipurpose or 700 Series plastisols to convert those inks to hot split or hot peel transfer inks. The recommended ratios are: By volume, 1 part additive to 3 parts ink. By weight, 1 part additive to 4 parts ink. Thoroughly mix the additive into the ink. The addition of more additive than prescribed will increase the ease of transfer release after heat sealing. Excessive amounts of additive will reduce the opacity of the mixed ink. Shelf life of mixed ink is indefinite when stored in a cool area. See product bulletin 500LF Quick-Trans Additive for more information.
720LF SOFTHAND CLEAR BASE	Add to 700 Series, Multipurpose, 1100 Series, 7000 Series and 800 Series inks for improved hand, cost and printability. 720LF is very clear and is highly recommended for extending any process color, especially the Pro-Brite™ Process Colors. For a softer hand, add approximately 10% to 20% by volume. More may be added without affecting the cure or fusing of the mixed ink. ***This product can lower the bleed resistance and/or opacity of the ink being mixed.*** 720LF Softhand used in 800 Series inks greatly lowers the cost of the mixed ink. Adding 720LF to 800 Series inks in amounts higher than 20%, by volume, may shift mixed Pantone colors.
1199LF STRETCH INK ADDITIVE	Can be easily mixed into Multipurpose, 700 Series, or 1100 Series plastisols to produce increased elongation for Lycra, Spandex and other stretch fabric applications. The recommended ratios are: By volume, 2 parts ink to 1 part additive. By weight, 3 parts ink to 1 part additive. For opaque inks, mixing by weight is highly recommended. ***1199LF is not a low bleed product.*** Proper testing must be done for dye migration or bleeding. Adding the additive to a low bleed ink does not guarantee bleed resistance. Always test ink and fabric before any production run. See product bulletin 1199LF Stretch Additive for more information.

STORAGE OF INK CONTAINERS

Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.

MSDS

Available upon request.

PLASTISOL INK REDUCERS

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

IMPORTANT INFORMATION

All products listed have been tested with International Coating's inks. If these products are used with another manufacturer's products, proper testing must be done to insure the performance and and durability of the mixed ink.

Reducers	
1099LF CURABLE LO-BLEED REDUCER	1099LF Curable Lo-Bleed Reducer will lower the viscosity of opaque, standard opacity and low bleed inks without affecting the bleed resistance or fusing characteristics. This additive is especially formulated to help maintain the opacity of high pigment (HP) inks when being reduced. When adding reducers to opaque inks, use a minimal amount of reducer to help maintain opacity. The recommended proportion of 1099LF Curable Lo-Bleed Reducer is 1% to 10% by volume.
1110LF CURABLE REDUCER	1110LF Curable Reducer lowers the viscosity of plastisols without affecting the fusing characteristics. 1110LF is also a curable reducer, which means it fuses or cures by itself with the application of heat. The recommended proportion of 1110LF is 1% to 25% by volume. ***This reducer should not be used in low bleed inks as it can lower the bleed resistance of those inks.*** 1110LF can help in reducing ink build-up on the back of successive screens when printing wet on wet. The amount of 1110LF needed to reduce build-up will depend on the ink being adjusted. Use 5% to 10%, by volume, 1110LF for opaque inks. Use 1% to 5%, by volume, 1110LF for standard opacity inks. The correct screen mesh, such as 160 to 230 monofilament, properly tensioned, will also help to reduce ink build-up.
LBX VISCOSITY MODIFIER	LBX is a liquid plasticizer used for reducing plastisol inks. The recommended proportion is 1% to 5% by weight. ***LBX is a non-curable reducer, which if used in excess, will cause fusing or curing problems. This reducer should not be used in low bleed inks as it will greatly lower the bleed resistance of those inks.*** The use of a curable reducer is highly recommended for general use when adjusting the viscosity of plastisol inks.

STORAGE OF INK CONTAINERS

Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.

MSDS

Available upon request.

WHITE PLASTISOL INKS

White inks of the highest quality are critical to screen printers. They are the day-to-day workhorse of the industry, and International Coatings recognizes their importance with an eye to delivering a range of the finest white plastisol inks available.

International Coatings' whites are formulated to give excellent printability across a range of screen printing applications.

None of our whites contain bleaching agents or emit any objectionable odors.

To find the best white ink for your specific needs, please refer to our handy comparison chart on the following pages for easy reference. You will find a variety of white ink products, including opaque, high pigment, tinting whites, and low bleed products.

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WHITE INK COMPARISONS

PRODUCT NUMBER	RECOMMENDED FABRICS	BLEED RESISTANCE	DRYER TEMPERATURES	OPACITY	FLASH	MESH
12LF HP (High Pigment)	100% Cotton	100% Cotton Only	325°F (163°C)	Very Good	Good	60-230 Monofilament
Comments: High pigment white for use on 100% Cotton as a direct print or cold peel transfer ink.						
13LF HP (High Pigment) Litho Backing	100% Cotton	100% Cotton Only	Gel Temperature 230°F to 260°F	Very Good	N/A	86-125 Monofilament
Comments: High pigment white for use as a backing white for offset lithographic heat transfers. Transfer application: 350°F to 375°F (180°C to 190°C), 10 to 15 seconds, cool or cold peel.						
513LF HP (High Pigment) Opaque Transfer	100% Cotton Cotton/Polyester Blends	Very Good	Gel Temperature 200°F to 225°F	Excellent	N/A	60-110 Monofilament
Comments: High pigment, very opaque hot peel or cold peel transfer white for use on dark fabrics. Transfer application: 375°F to 400°F (180°C to 190°C), 4 to 7 seconds, hot peel or cold peel depending on transfer paper used.						
711LF Lo-Bleed HP (High Pigment) & 771LF HP Lo-Beed Low Viscosity	100% Cotton Cotton/Polyester Blends	Very Good	275°F to 300°F (135°C to 149° C) 1 color (testing required) or 300°F to 325°F (149°C to 163°C) for multiple color prints	Excellent	Excellent	86-305 Monofilament
Comments: Optically bright, high pigment white that is low fusing and fast flashing. Product contains no bleaching agents. When fusing at low temperatures (300°F or less), allow for longer time in dryer in order for entire ink film to reach temperature. 771LF is a low viscosity version of 711LF that can be printed through finer mesh counts.						
712LF Tinting White	100% Cotton	100% Cotton Only	325°F (163°C)	Good	Good	N/A
Comments: Mixing, blending white for making pastel colors in standard 700 Series Colors. Not recommended for use in low bleed colors.						
713LF HP (High Pigment)	100% Cotton	100% Cotton Only	325°F (163°C)	Very Good	Good	60-230 Monofilament
Comments: High pigment white for use on 100% Cotton..						
714LF Lo-Bleed HP (High Pigment) & 774LF HP Lo-Beed Low Viscosity	100% Cotton Cotton/Polyester Blends	Very Good	275°F to 300°F (135°C to 149° C) 1 color (testing required) or 300°F to 325°F (149°C to 163°C) for multiple color prints	Excellent	Excellent	86-305 Monofilament
Comments: High pigment white that is low fusing and fast flashing. Product contains no bleaching agents. When fusing at low temperatures (300°F or less), allow for longer time in dryer in order for entire ink film to reach temperature. 774LF is a low viscosity version of 714LF that can be printed through finer mesh counts.						

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WHITE INK COMPARISONS - CONT'D

PRODUCT NUMBER	RECOMMENDED FABRICS	BLEED RESISTANCE	DRYER TEMPERATURES	OPACITY	FLASH	MESH
741LF Ultra Low Bleed	100% Cotton Cotton/Polyester Blends 100% Polyester	Excellent	325°F (163°C)	Good	Very Good	86-305 Monofilament
Comments: Ultra low bleed white formulated to help block dye migration problems on various problem polyester content fabrics.						
742LF Lo-Bleed HP (High Pigment)	100% Cotton Cotton/Polyester Blends	Very Good	325°F (163°C)	Excellent	Very Good	86-305 Monofilament
Comments: High pigment white with a very creamy viscosity that is easy to print. Product Contains no bleaching agents and is superior in performance to other low bleed inks.						
901LF Nylon	Nylon	Average	300°F to 325°F (149°C to 163°C)	Very Good	Very Good	86-305 Monofilament
Comments: High pigment white formulated for use with 900LF Catalyst to print on nylon fabrics. Can also be used with powder adhesive, to make cold peel transfers for use on open mesh nylon fabrics. Transfer application: 305°F to 375°F (180°C to 190°C), 10 to 12 seconds, cool or cold peel.						
1113LF Athletic Mesh	Nylon Mesh Nylon Blends 100% Cotton	Average	300°F to 325°F (149°C to 163°C)	Very Good	Very Good	86-160 Monofilament
Comments: High pigment white formulated for use on nylon mesh jerseys. Recommend the use of 900LF Catalyst when printing micro-mesh or any tightly weaved product. Can also be used to make cold peel transfers for use on open mesh nylon fabrics (use powder adhesive for better adhesion). Transfer application: 305°F to 375°F (180°C to 190°C), 10 to 12 seconds, cool or cold peel.						
7031LF Ultra White	100% Cotton	Very Good	320°F (160°C)	Excellent	Very Good	86-305 Monofilament
Comments: Very optically bright white with a very creamy, short body. Low tack product that is suited for high definition print on automatic printing equipment. Not recommended for use in marginal drying conditions.						
7034LF FF (Faster Fusing) Ultra White	100% Cotton	Very Good	320°F (160°C)	Excellent	Very Good	86-305 Monofilament
Comments: Very optically bright white with a very creamy, short body that is fast fusing. Low tack product that is suited for high definition printing on automatic printing equipment. Not recommended for use in marginal drying conditions.						

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711 LO-BLEED HP WHITE

FEATURES

- 711LF* LB** is a low fusing, fast flashing, low tack, high pigment white plastisol screen printing ink.
- With a very creamy viscosity, the ink is very easy to print. This results in a lot less pressure needed to print the ink through the screen.
- A truly white white, without any objectionable odor. The ink contains no bleaching agents and is superior in performance to other low bleed inks.

*LF (Lead Free) Contains less than 0.025% lead. **LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, cotton/polyester blends and polyester. Always test print fabric before beginning a production run.
INK APPLICATION	711LF LB HP White should be used right from the container without any modifications. If thinning is required, use 1% to 10% by volume of 1099LF LB Curable Low Bleed Reducer. Using other reducers or additives may lower the bleed resistance and/or opacity of the ink. Adding too much reducer will cause loss of opacity.
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/cm or 43-90 t/cm Monofilament for under basing Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURES	275°F to 300°F (135°C to 149°C) entire ink film. 1 color print using 711LF only (testing required before using lower temperature settings). 325°F (163°C) entire ink film. For multiple color prints Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

This product will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 711LF LB HP White is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure, when using 711LF LB HP White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also cause loss of opacity.
3. 711LF HP White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring, because less squeegee pressure is needed, which improves operator performance. It also allows automatic equipment settings to be at lower pressure settings, thus improving screen life and squeegee durability.
4. 711LF LB HP White, compared to other opaque whites, prints so easily you will find that a finer screen mesh can be used for the same opacity as a more open mesh. This means less ink will be used, a real money saver in terms of ink usage. It also means a softer hand on flashed fabrics.

711 LO-BLEED HP WHITE

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714 LO-BLEED HP WHITE

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FEATURES

- 714LF* LB** is a low fusing, fast flashing, low tack, high pigment white plastisol screen printing ink.
- With a very creamy viscosity, the ink is very easy to print. This results in a lot less pressure needed to print the ink through the screen.
- A truly white white, without any objectionable odor. The ink contains no bleaching agents and is superior in performance to other low bleed inks.

*LF (Lead Free) Contains less than 0.025% lead. **LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, cotton/polyester blends and polyester. Always test print fabric before beginning a production run.
INK APPLICATION	714LF LB HP White should be used right from the container without any modifications. If thinning is required, use 1% to 10% by volume, of 1099LF LB Curable Low Bleed Reducer. Using other reducers or additives may lower the bleed resistance and/or opacity of the ink. Adding too much reducer will cause loss of opacity.
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/in or 43-90 t/cm Monofilament for under basing Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURES	275°F to 300°F (135°C to 149°C) entire ink film. 1 color print using 714LF only (testing required before using lower temperature settings). 325°F (163°C) entire ink film for multiple color prints. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

This product will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 714LF LB HP White is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure, when using 714LF LB HP White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also cause loss of opacity.
3. 714LF HP White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring, because less squeegee pressure is needed, which improves operator performance. It also allows automatic equipment settings to be at lower pressure settings, thus improving screen life and squeegee durability.
4. 714LF LB HP White, compared to other opaque whites, prints so easily you will find that a finer screen mesh can be used for the same opacity as a more open mesh. This means less ink will be used, a real money saver in terms of ink usage. It also means a softer hand on flashed fabrics.

714 LO-BLEED HP WHITE

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741 ULTRA LO-BLEED WHITE

FEATURES

- 741LF* Ultra Low Bleed White Ink is a plastisol ink specifically formulated to help block dye migration problems on various problem polyester content fabrics.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, cotton/polyester and polyester. As with all low bleed inks, pre-print and test all fabrics for dye migration, ink adhesion, wash fastness and other desired properties before beginning any production.
SCREEN MESH AND EMULSION	Mesh: 60 to 110 t/in or 24 to 43 t/cm. Screen Tension: 25-35 newtons.
SQUEEGEE	65-75 Durometer: Sharp edge 60/90/60 Triple Durometer: Sharp edge Print with squeegee at 35 to 45 degree angle to screen mesh. Print with screen off contact for best results.
CURE TEMPERATURE	Fuse at 325°F (163°C). Entire ink film must reach the prescribed fusion/cure temperature. The efficiency of the oven and length of heat tunnel will determine oven dwell time. Dwell time should be increased to adjust for thick ink deposit. Failure to fuse the ink properly may result in cracking, poor adhesion and poor wash fastness. Higher than recommended temperatures or longer than necessary dwell times may increase dye migration.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

SPECIAL RECOMMENDATIONS

For optimum bleed resistance, use a 110 t/in or 43 t/cm mesh screen flash plate and overprint with an 86 t/in or 34 t/cm mesh screen. Avoid over-flashing, as it can result in poor inter-coat adhesion of overprinted colors or increased dye migration. Adjust flash settings so that the ink is just dry to the touch.

741 ULTRA LOW BLEED WHITE

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742 LO-BLEED HP WHITE

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FEATURES

- 742LF* LB** is a high pigment, low bleed white plastisol screen printing ink.
- With a very creamy viscosity, the ink is very easy to print. This results in a lot less pressure needed to print the ink through finer screen meshes.
- The ink contains no bleaching agents and is superior in performance to other low bleed inks.

*LF (Lead Free) Contains less than 0.025% lead. **LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run for possible dye migration or bleeding. Bleeding or dye migration may not occur right away
INK APPLICATION	742LF LB HP White should be used right from the container without any modifications. If thinning is required, use 1% to 10% by volume, 1099LF Lo-bleed Curable Reducer. To maintain best opacity when reducing 742LF, use 1% to 5% by volume of 1099LF LB Curable Low Bleed Reducer. Using other reducers or additives may lower the bleed resistance and/or opacity of the ink. Adding too much reducer will cause loss of opacity.
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/in or 43-90 t/cm Monofilament for under basing. Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325°F (163°C) entire ink film.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

This product will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 742LF LB HP White is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the actual fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure, when using 742LF LB HP White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also cause loss of opacity.
3. 742LF HP White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring, because less squeegee pressure is needed, which improves operator performance. It also allows automatic equipment settings to be at lower pressure settings, thus improving screen life and squeegee durability.
4. 742LF LB HP White, compared to other opaque whites, prints so easily you will find that a finer screen mesh can be used for the same opacity as a more open mesh. This means less ink will be used, a real money saver in terms of ink usage. It also means a softer hand on flashed fabrics.

742 LO-BLEED HP WHITE

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771 & 774 LOW VISCOSITY LB WHITE

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FEATURES

- 771LF* and 774LF Whites are low fusing, fast flashing, high pigment (HP), low bleed (LB) plastisol screen printing inks.
- Specifically formulated to be printed through much finer mesh counts for underbase printing. Very important in the printing of simulated process and four color process designs on dark fabrics.
- Truly white whites, without any bleaching agents or objectionable odors.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, cotton/polyester blends and some 100% polyester. Always test print fabric before beginning a production run.
INK APPLICATION	771LF and 774LF Whites should be printed right from the container without any modifications. For optimum performance, the thinning or reducing of these inks is not recommended.
SCREEN MESH AND EMULSION	86-305 t/in or 34-120 t/cm Monofilament Use 110-230 t/in or 43-90 t/cm Monofilament for under basing Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	50-70 Durometer: Sharp or beveled edge For best results with low viscosity inks, in most instances, use the softest squeegee possible.
CURE TEMPERATURES	275°F to 300°F (135°C to 149°C). For 1 color prints only. 325°F (163°C). For multiple color prints where all colors are not low fusing. Entire ink film must reach the prescribe temperature to insure proper ink durability. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

These products will spot dry, with a very low after flash tack, in 2 to 8 seconds. In some cases, you may need to lower the heat of the spot cure unit because too much heat may make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 771LF and 774LF White are low bleed inks, not non-bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. Because bleeding or dye migration may not occur right away, it is best to do long term testing on some fabrics to determine if they are going to bleed.
2. Excessive squeegee pressure, when using 771LF or 774LF Whites, will drive the ink through the fabric, making the ink look less opaque. Adding any reducer to these inks may cause loss of opacity and performance.
3. 771LF and 774LF White were formulated with a creamy body and low viscosity to make the printing of fleece fabric easier. This ink technology decreases the squeegee pressure needed to achieve the correct ink and screen shear needed for this type of printing. The use of 771LF or 774LF White will also decrease the amount of ink needed for an opaque white print. These features give the final print a softer hand, with sharper detail.
4. 771LF and 774LF White are the recommended products to use for simulated process printing. These inks will go through mesh counts as high as 305 t/in or 120 t/cm monofilament while using less squeegee pressure. This coincides with less dot gain and better resolution while still maintaining very good opacity on dark fabrics.

International Coatings™
Creating Performance Solutions

7031 ULTRA WHITE

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- Ultra White 7031LF* is a high performance, high pigment (HP), low bleed (LB) white plastisol formulated for ultra high speed printing.
- Very creamy, short bodied, low tack with greatly improved shear for ease of printing.
- High opacity ink that is optically very bright.
- Well suited for high definition and resolution, fine detail and halftone printing.
- It will deliver faster production speeds with less pressure, and can be printed through finer mesh counts.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	Ultra White 7031LF should be printed right from the container without any modifications. If thinning is needed, use I099LF LB Lo-Bleed Reducer (1% to 5% by volume).
SCREEN MESH AND EMULSION	60 to 305 t/in or 24 to 120 t/cm Monofilament Use 160-305 t/in or 63 - 120 t/cm Monofilament for under basing Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325°F (163°C) Entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

Ultra White 7031LF will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. Too much heat/time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the underbase ink should just be dry to the touch with no lift off, but not totally fused. Totally fusing the underbase ink may cause inter-coat adhesion problems with the inks printed on top of the underbase. Final curing will occur in the dryer.

IMPORTANT INFORMATION

1. Ultra White 7031LF is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are subject to dye migration. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure will drive the Ultra White 7031LF through the fabric being printed, making the ink look less opaque. Adjust squeegee pressure, angle and off-contact to insure proper shear and laydown of printed ink. Proper settings of squeegee, flood bar and off-contact will improve performance, improve screen life and squeegee durability.
3. Adding too much reducer or other additives to the Ultra White 7031LF may also cause loss of opacity or other problems.
4. Ultra White 7031LF is very easy to print when compared to other white inks and can be printed through finer mesh counts while still maintaining great opacity. This means less ink usage and faster production times, a real money saver. Using finer mesh counts also means a softer hand on the finished product.

ULTRA WHITE 7031

International Coatings™
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7032 HP COTTON WHITE

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- 7032LF* is a high pigment (HP), white plastisol screen printing ink for use on 100% cotton fabrics.
- With a creamy viscosity, the ink is very easy to print. A lot less pressure is needed to print the ink through finer screen meshes.
- Formulated to resist ghosting or fabric discoloration.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton fabrics. Always test print fabric for possible dye migration, bleeding or ghosting before beginning a production run.
INK APPLICATION	7032LF HP White can and should be used right from the container without any modifications. If thinning is required, use 1% to 5% by volume of 1110LF Curable Reducer. Adding too much reducer will diminish opacity.
SCREEN MESH AND EMULSION	60-230 (24 –90 cm) Monofilament Use 110-230 (43 –90 cm) Monofilament for under basing. Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
DRYER TEMPERATURE	325°F (163°C)
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet 7032-MSDS8.

SPOT FLASHING

This product will spot dry in 2 to 8 seconds, with very low after flash tack, depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with any inks printed on top of the white ink. Final fusing or curing should occur in the dryer.

IMPORTANT INFORMATION

1. 7032LF HP White was formulated for use on 100% cotton fabrics and is not a low bleed ink. On some types of cotton fabrics that have been over-dyed, poorly dyed or stone washed, dye migration or bleeding may occur. Always test print the actual fabric to be printed before beginning production. It is best to do some long term testing on fabrics to determine if there are going to be any dye migration or bleeding problems. Dye migration or bleeding may not occur right away.
2. Excessive squeegee pressure, when using 7032LF White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also diminish opacity.
3. 7032LF White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring. Less squeegee pressure is needed so operator performance is improved. Automatic equipment can be set at lower pressure levels, thus improving screen life and squeegee durability.
4. Ghosting, or fabric discoloration should not occur when using this product on 100% cotton fabrics. Always test for ghosting, dye migration or bleeding on any 100% cotton fabric before beginning production.

7032 HP COTTON WHITE

International Coatings™
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7033 LO-BLEED HP WHITE

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- 7033LF* LB** is a high pigment, low bleed white plastisol screen printing ink.
- With a very creamy viscosity, the ink is very easy to print. This results in a lot less pressure needed to print the ink through finer screen meshes.
- The ink contains no bleaching agents and is superior in performance to other low bleed inks.

*LF (Lead Free) Contains less than 0.025% lead. **LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run for possible dye migration or bleeding. Bleeding or dye migration may not occur right away
INK APPLICATION	7033LF LB HP White should be used right from the container without any modifications. If thinning is required, use 1% to 10% by volume, 1099LF Lo-bleed Curable Reducer. To maintain best opacity when reducing 7033LF, use 1% to 5% by volume of 1099LF LB Curable Low Bleed Reducer. Using other reducers or additives may lower the bleed resistance and/or opacity of the ink. Adding too much reducer will cause loss of opacity.
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/in or 43-90 t/cm Monofilament for under basing. Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325°F (163°C) entire ink film.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

This product will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 7033LF LB HP White is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the actual fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure, when using 7033LF LB HP White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also cause loss of opacity.
3. 7033LF HP White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring, because less squeegee pressure is needed, which improves operator performance. It also allows automatic equipment settings to be at lower pressure settings, thus improving screen life and squeegee durability.
4. 7033LF LB HP White, compared to other opaque whites, prints so easily you will find that a finer screen mesh can be used for the same opacity as a more open mesh. This means less ink will be used, a real money saver in terms of ink usage. It also means a softer hand on flashed fabrics.

7033 LO-BLEED HP WHITE

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7034 ULTRA WHITE FF

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- Ultra White 7034LF* FF is a high performance, high pigment (HP), faster fusing (FF), low bleed (LB) white plastisol formulated for ultra high speed printing.
- Very creamy, short bodied, low tack with greatly improved shear for ease of printing.
- High opacity ink that is optically very bright.
- Well suited for high definition and resolution, fine detail and halftone printing.
- It will deliver faster production speeds with less pressure, and can be printed through finer mesh counts.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	Ultra White 7034LF should be printed right from the container without any modifications. If thinning is needed, use I099LF LB Lo-Bleed Reducer (1% to 5% by volume).
SCREEN MESH AND EMULSION	60 to 305 t/in or 24 to 120 t/cm Monofilament Use 160 to 305 t/in or 63 to 120 t/cm Monofilament for under basing Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURES	325°F (163°C) Entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

Ultra White FF 7034LF will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. Too much heat/time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the underbase ink should just be dry to the touch with no lift off, but not totally fused. Totally fusing the underbase ink may cause inter-coat adhesion problems with the inks printed on top of the underbase. Final curing will occur in the dryer.

IMPORTANT INFORMATION

1. Ultra White 7034LF is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are subject to dye migration. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure will drive the Ultra White 7034LF through the fabric being printed, making the ink look less opaque. Adjust squeegee pressure, angle and off-contact to insure proper shear and laydown of printed ink. Proper settings of squeegee, flood bar and off-contact will improve performance, improve screen life and squeegee durability.
3. Adding too much reducer or other additives to the Ultra White 7034LF may also cause loss of opacity or other problems.
4. Ultra White 7034LF is very easy to print when compared to other white inks and can be printed through finer mesh counts while still maintaining great opacity. This means less ink usage and faster production times, a real money saver. Using finer mesh counts also means a softer hand on the finished product.

ULTRA WHITE FF 7034

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7037 LO-BLEED LC WHITE

FEATURES

- 7037LF* LB** LC*** White is a low bleed plastisol screen printing ink.
- With a very creamy viscosity, the ink is very easy to print. This results in a lot less pressure needed to print the ink through finer screen meshes.
- The ink contains no bleaching agents and is superior in performance to other low bleed inks.

*LF (Lead Free) Contains less than 0.025% lead **LB (Low Bleed) ***LC (Low Cost)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run for possible dye migration or bleeding. Bleeding or dye migration may not occur right away
INK APPLICATION	7037LF LB LC White should be used right from the container without any modifications. If thinning is required, use 1% to 10% by volume, 1099LF Lo-bleed Curable Reducer. To maintain best opacity when reducing 7037LF, use 1% to 5% by volume of 1099LF LB Curable Low Bleed Reducer. Using other reducers or additives may lower the bleed resistance and/or opacity of the ink. Adding too much reducer will cause loss of opacity.
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/in or 43-90 t/cm Monofilament for under basing. Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325°F (163°C) entire ink film.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

This product will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, you may have to lower the heat of the spot cure unit because too much heat may actually make the ink tacky. When you spot dry, you are only partially fusing or gelling the surface of the ink. The ink should just be dry to the touch, with no lift off, but not totally fused. Totally fusing the underprint white may cause inner coat adhesion problems with the inks printed on top of the white ink. Final fusing or curing will occur in the dryer.

IMPORTANT INFORMATION

1. 7037LF LB LC White is a low bleed ink, not a non-bleed ink. On some types of fabric, bleeding or dye migration may occur. Always test print the actual fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur right away.
2. Excessive squeegee pressure, when using 7037LF LB LC White, will drive the ink through the fabric, making the ink look less opaque. Adding too much reducer will also cause loss of opacity.
3. 7037LF LB LC White was formulated to make printing opaque white easy. This technology helps to make hand printing less tiring, because less squeegee pressure is needed, which improves operator performance. It also allows automatic equipment settings to be at lower pressure settings, thus improving screen life and squeegee durability.
4. 7037LF LB LC White, compared to other opaque whites, prints so easily you will find that a finer screen mesh can be used for the same opacity as a more open mesh. This means less ink will be used, a real money saver in terms of ink usage. It also means a softer hand on flashed fabrics.

7037 LB LC WHITE

COLOR SYSTEMS

When PANTONE® color matching is key, International Coatings™ has the solutions. Our Color System series are specifically formulated to provide simulations of the PANTONE® color standards.

Our PANTONE® color systems offer tough, durable inks that will look great longer.

In our Color System series, we offer opaque inks designed for printing on dark-colored fabrics, high performance inks ideally suited for high-speed automatic printing, inks for printing on nylon and athletic fabrics, and our NEW environmentally friendly PVC free inks! We make it easy for you to find exactly what you need.

International Coatings™ has developed a PANTONE® color matching software program to be used with our UltraMix® line of products, to enable you to match your colors easily. The PC- and Mac-compatible ink management software program contains all the color formulations. The software is included with our UltraMix® color system products.

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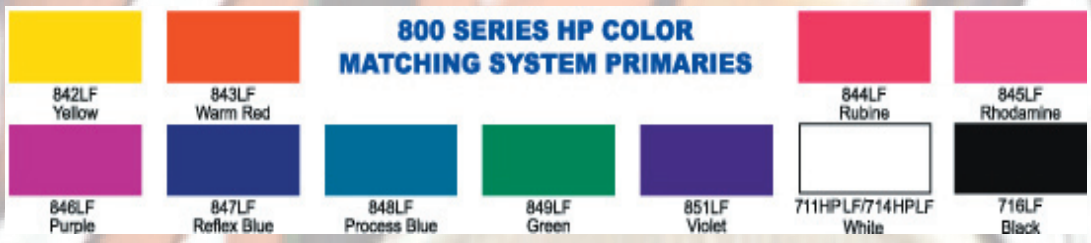
800 SERIES LF OPAQUE

The 800 Series is designed to make opaque simulations of PANTONE® colors for dark-fabric printing.

The system consists of nine highly pigmented, ready-for-use, low-bleed primary colors, plus black and white.

The inks are very creamy, low-fusing, fast-flashing, and easy to print. All the colors in the 800 System are lead-free, do not contain any bleaching agents and emit minimal odor.

See available colos below:



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800 SERIES LF OPAQUE

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FEATURES

- Opaque simulations of PANTONE® colors for dark fabric printing.
- Consists of 9 HP (high pigment), RFU (ready for use) primary colors which are LB (low bleed), low fusing and fast flashing.
- No bleaching agents and very low odor.

800 SERIES OPAQUE LF* COLORS

842LF Yellow
843LF Warm Red
844LF Rubine
845LF Rhodamine
846LF Purple
847LF Reflex Blue
848LF Process Blue
849LF Green
851LF Violet
711LF HP White
714LF HP White
716LF Black

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, cotton/polyester blends and some 100% polyester. Always test print for adhesion and possible bleeding or dye migration.
INK APPLICATION	The 800 Series inks should be used right from the container (RFU) without any modifications when printing on dark fabrics. To produce a more matte finish, use 3% to 20% (by volume) of 820LF Flattener Additive. If thinning is required, use 1% to 10% (by volume) of 1099LF Low Bleed Curable Reducer. Using any other reducers or additives may lower the bleed resistance and or opacity of the ink. Adding too much reducer or additive will cause loss of opacity.
SCREEN MESH AND EMULSION	60-305 t/in or 24-120 t/cm Monofilament. Any direct or indirect lacquer proof emulsion. Use 35 to 70 micron capillary film for best results. 160-230 t/in or 63-90 t/cm Monofilament for under printing.
SQUEEGEE	60-90-60 or 70-90-70 Triple Durometer
CURE TEMPERATURES	285°F to 325°F (141°C to 163°C) entire ink film. **NOTE**: When curing/fusing at lower temperatures, a longer retention time will be required for the entire ink film to reach the prescribed temperature. Wash test product before and during a production run .
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air. Always use oldest catalyst first and tightly seal containers after use.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

IMPORTANT INFORMATION

1. Do not attempt to mix the 800 Series inks by the formulas in the PANTONE® Color Formula Guide Book. To mix opaque simulations of PANTONE® colors with the 800 Series inks you *must* use the color formulas provided in the International Coatings Formulation Guide supplied with the 800 System.
2. When printing on light colored labric, the finished color can be extended with 720LF Clear Base. To maintain best bleed resistance on dark fabrics, use 199LF LB Clear. Colors can be extended with either clear base up to 500/0 depending on the opacity or intensity of color desired. For a softer hand use a combination of 720LF or 199LF Clear and 710LF Softhand Additive. The use of 710LF may lower bleed resistance.
3. Though adequate opacity on dark fabrics may be achieved by printing these colors, without modifications, through an 86 to 110 mesh screen, a more satisfactory method for wet-on-wet printing is to first print an underbase of either 714LF White, 711LF White, or 199LF First Coat Clear through a 160 to 305 mesh screen. Flash cure the underbase print and then print the following colors through 160 to 305 mesh screens. This technique helps to insure a softer hand, speeds up production, and allows for greater detail.
4. Use either 711LF White or 714LF white as the mixing white in all formulas calling for white in the International Coatings Formulation Guide.
5. The 800 Series inks will spot dry, with low after flash tack, in 2 to 8 seconds depending on the spot dryer used. In some cases, the heat setting of the spot cure unit may have to be lowered because excessive heat may actually make the ink tacky. Spot drying or flashing should only gel the surface of the ink. The ink should just be dry to the touch, with no color lift off, but not totally fused. Totally fusing any color used as a underbase print may cause inner-coat adhesion problems between printed colors. Final fusing or curing will occur in the dryer.
6. All mixed colors were viewed and approved under cool white fluorescent lighting and may appear metameric (not match well) when viewed under a different light source.

UltraMix® 1200 PVC-FREE COLOR SYSTEM

NEW

Go Green! International Coatings™ has developed the New UltraMix® 1200 PVC-Free Color System that is both PVC-Free and Phthalate-Free!

UltraMix® 1200 PVC-Free inks have ALL the benefits of a plastisol ink and are easy to use and mix.

UltraMix® 1200 PVC-Free inks are very creamy, short bodied, with low tack for ease of printing and can be printed through fine mesh counts for faster production speeds.

The system meets tough international environmental standards, including Öko-Tex (Eco-Tex) Standard 100.

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UltraMix® 1200 PVC-FREE COLOR SYSTEM

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FEATURES

- PVC-Free and Phthalate-Free - Meets Öko-Tex (Eco-Tex) Standard 100.
- Easy to use, easy to mix. All the benefits of a plastisol ink
- Very creamy, short bodied, with low tack for ease of printing.
- Can be printed through fine mesh counts for faster production speeds.

UltraMix® 1200 PVC-FREE COLORS

1202 Yellow (GS)
1204 Yellow (RS)
1206 Orange
1208 Red (BS)
1210 Purple
1212 Violet
1214 Blue (RS)
1216 Blue (GS)
1218 Green
1220 Brown
1224 FL. Magenta
1226 FL. Violet
1228 FL. Green
1201 Mixing White
1222 Black
1200 Extender Base
1211 Printing White
1299 Reducer

Application & Storage Information

RECOMMENDED FABRICS	100% cotton. Use an underbase for dark fabrics. Always test print for bleeding or dye migration.
INK APPLICATION	Inks should be printed without any modifications. If thinning is required, use 1299LF Reducer (1% to 3% by weight).
SCREEN MESH AND EMULSION	110 - 305 t/in (43 - 120 t/cm) Monofilament Use a Phthalate-Free emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
DRYER TEMPERATURES	325°F (163°C). Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS21.

CONTAMINATION OF INK

This ink should not be modified or come in contact with any product not recommended for the system. Any addition of products or contact by products other than those recommended can contaminate the system and it may no longer comply with restricted substance standards. Make sure that all mixing spatulas, mixing blades, squeegees, flood bars and screens are thoroughly cleaned (free of inks or materials which may contaminate the PVC Free product) before every use.

SPOT FLASHING

The UltraMix® 1200 inks will spot dry, with very low after flash tack, in 6 to 9 seconds depending on the spot dryer used. Too much heat / time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the ink should be just dry to the touch, not totally fused. Totally fusing any of the flashed colors may cause inter-coat adhesion problems with the inks printed on top.

IMPORTANT INFORMATION

1. To achieve the best color match results using the UltraMix® 1200 PVC-Free Color System, the primary colors specified for the system must be used. Using colors other than those specified will result in inaccurate matches.
2. Use 1201LF White in all 1200 Series formulas calling for white. Use 1222LF Black in all formulas calling for black. Using any other white or black will produce inaccurate results. All of the 1200 Series primary colors may be printed as is.
3. The UltraMix® 1200 inks are not low bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. Bleeding or dye migration may not occur right away.
4. Adjust squeegee pressure, angle and off-contact to insure proper shear and lay down of printed ink. Properly setting squeegee, flood bar and off-contact will improve print performance, screen life and squeegee durability.
5. Use an underlay print when printing UltraMix® 1200 inks on dark fabrics. Use 1211LF White as an underlay white ink. To achieve a softer hand and faster production speeds, print the under base ink through finer mesh counts (230 to 305, 90 to 120 cm).

UltraMix® 1200 PVC-FREE COLOR SYSTEM

PVC-FREE

THINKING GLOBAL.

UltraMix® 1200

www.iccink.com

At **International Coatings** our mission is to provide superior products that create a competitive advantage for you.

And now, our new **UltraMix® 1200 PVC-Free** Color System allows printers to simulate PANTONE® Colors for light and dark colored fabrics. This smooth running, very creamy PVC-Free plastisol is formulated to give the same outstanding performance you've come to expect from our other UltraMix® inks.

Thirteen primary colors plus black and white make simulating PANTONE® Colors easy. UltraMix® 1200 inks offer not only easy to match colors but superior performance and adhesion.

UltraMix® 1200 is the answer if you are looking for that competitive advantage in printing PVC-Free inks. **International Coatings** is your competitive advantage for outstanding products and superior customer service.

International Coatings™
Creating Performance Solutions

UltraMix® 1200 PVC-FREE

- PVC-Free and Phthalate-Free
- Outstanding Performance and Adhesion
- Meets Öko-Tex (Eco-Tex) Standard 100
- Easy to Use, Easy to Mix
- All the Benefits of a Plastisol Ink
- Worldwide Distribution

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UltraMix® 7400 LF

International Coatings™ introduces its UltraMix® 7400 Color System, a high performance, low bleed plastisol, formulated for high speed automatic printing.

Economically priced and easy to use, UltraMix® 7400 inks offer faster wet-on-wet production speeds with less pressure and extremely low ink build-up. The ink is very creamy and short-bodied, with low tack and for ease of printing, a greatly improved shear.

The color matching system consists of 15 intermixable colors that enable printers to simulate PANTONE® colors on white and dark (with white underlay) fabrics.

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UltraMix® 7400 COLOR SYSTEM

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FEATURES

- Formulated to provide simulations of the PANTONE® Color Standards for light colored textile fabrics.
- High Performance, Low Bleed (LB) plastisol formulated for Ultra High speed automatic printing.
- Very creamy and short bodied, with low tack and for ease of printing, a greatly improved shear.
- Well suited for high definition and resolution, fine detail and halftone printing.
- Faster production speeds with less pressure, and can be printed through finer mesh counts.

UltraMix® 7400 LF* COLORS

7402LF Yellow (GS)	7418LF Green
7404LF Yellow (RS)	7420LF Brown
7406LF Orange	7424LF FL. Magenta
7408LF Red (BS)	7426LF FL. Violet
7410LF Purple	7428LF FL. Green
7412LF Violet	7401LF White
7414LF Blue (RS)	7422LF Black
7416LF Blue (GS)	

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Light colored 100% cotton or cotton/polyester blends. Use an underbase for printing dark fabrics.
INK APPLICATION	Colors should be printed without any modifications. If thinning is required, use 1099LF LB Lo-Bleed Reducer (1% to 5% by volume).
SCREEN MESH AND EMULSION	110 to 305 t/in 43 to 120 t/cm Monofilament Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	60-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325° (163°C) Entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

SPOT FLASHING

The UltraMix® 7400 inks will spot dry, with very low after flash tack, in 3 to 8 seconds depending on the spot dryer used. Too much heat / time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the ink should be just dry to the touch, with no lift off, but not totally fused. Totally fusing any of the flashed colors may cause inter-coat adhesion problems with the inks printed on top of the flashed ink. Final curing / fusing will occur in the dryer.

IMPORTANT INFORMATION

1. In order to achieve the best color matching results using the UltraMix® 7400 Color System, the specified system primaries must be used. Using colors other than the specified primaries will produce inaccurate matching results.
2. Use 7401LF Mixing White in all formulas calling for white. Use 7422LF Black as the mixing black in all formulas calling for black. Using any other white or black will produce inaccurate results.
3. Use an underbase print when printing UltraMix® 7400 inks onto dark fabrics. Use 771LF, 774LF, 7031LF or 7034LF white as an underbase ink. To achieve a softer hand and faster production speeds, print underbase ink through finer mesh counts 230 to 305 t/in or 90 to 120 t/cm.
4. The UltraMix® 7400 inks are low bleed inks, not non-bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. Bleeding or dye migration may not occur right away.
5. Excessive squeegee pressure will drive the UltraMix® 7400 inks through the fabric being printed. Adjust squeegee pressure, angle and off-contact to insure proper shear and lay down of printed ink. Proper settings of squeegee, flood bar and off-contact will improve performance, improve screen life and squeegee durability.
6. Adding too much reducer or other additives to the UltraMix® 7400 inks may cause curing/fusing or increased dye migration problems.
7. UltraMix® 7400 inks are easy to print when compared to other inks and can be printed through finer mesh counts. This means less ink usage and faster production times, a real money saver. Using finer mesh counts also means a softer hand of the finished product.

UltraMix® 7900 LF PF
Extra Low Cure - 275°F
(PHTHALATE FREE)

NEW

International Coatings™ is pleased to introduce its NEW Low Cure, phthalate-free UltraMix® 7900 PF Color System.

This brand new product is specially formulated to cure at lower temperatures, yet retain all the plastisol qualities you've come to expect from International Coatings™. This ink is very creamy and short-bodied, with low tack for ease of printing.

The UltraMix® 7900 PF Color System simulates PANTONE® colors beautifully on both, light-colored and dark textile fabrics.

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UltraMix® 7900 PF COLOR SYSTEM
EXTRA LOW CURE

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FEATURES

- Energy saving low cure, Phthalate free (PF) system.
- Simulates PANTONE® for light colored textile fabrics.
- Low Bleed (LB) and formulated for high speed printing.
- Very creamy, short bodied, with low tack for ease of printing.
- Allows faster production speeds and can be printed through finer mesh counts.

UltraMix® 7900 PF LF* COLORS

7900 Extender Base
7901LF White
7902LF Yellow (GS)
7904LF Yellow (RS)
7906LF Orange
7908LF Red (BS)
7910LF Purple
7912LF Violet
7914LF Blue (RS)
7916LF Blue (GS)
7918LF Green
7920LF Brown
7922LF Black
7924LF FL. Magenta
7926LF FL. Violet
7928LF FL. Green

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton or cotton/polyester blends. Use an underbase for dark fabrics. Always test print for bleeding or dye migration.
INK APPLICATION	Colors should be printed without any modifications. If thinning is required, use 7799LF LB Lo-Bleed Reducer (1% to 5% by volume).
SCREEN MESH AND EMULSION	110 to 305 t/in or 43 to 120 t/cm Monofilament Any direct or indirect lacquer resistant emulsion.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURES	275° to 325°F (135°C to 163°C) Entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8

MODIFYING INK

This ink should not be modified with any product not recommended for the system. Any addition of products other than those recommended for the system can contaminate the system so that it no longer complies with European or some manufacturers' restricted substance requirements.

SPOT FLASHING

The UltraMix® 7900 inks will spot dry, with very low after flash tack, in 3 to 8 seconds depending on the spot dryer used. Too much heat / time may cause the ink to become sticky after flashing. Adjust flash unit accordingly. When spot drying, the ink should be just dry to the touch, with no lift off, but not totally fused. Totally fusing any of the flashed colors may cause inter-coat adhesion problems with the inks printed on top of the flashed ink. Final curing / fusing will occur in the dryer.

ENERGY SAVING

UltraMix® 7900 inks will cure/fuse properly when the entire printed ink film reaches 275°F (135°C). To insure proper curing at this temperature, dryer temperatures must be accurately controlled and monitored. Dryer temperature settings and retention times should be determined by thorough testing. Printers who properly adjust their dryers to accommodate this lower cure temperature should be able to see 10% to 20% savings in their dryer energy usage.

IMPORTANT INFORMATION

1. In order to achieve the best color matching results using the UltraMix® 7900 Color System, the specified primary colors for the system must be used. Using colors other than the specified primaries will produce inaccurate matching results.
2. Use 7901LF White in all 7900 Series formulas calling for white. Use 7922LF Black in all formulas calling for black. Using any other white or black will produce inaccurate results. All of the 7900 Series primary colors may be printed as is.
3. The UltraMix® 7900 inks are low bleed inks, not non-bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric before beginning production. Bleeding or dye migration may not occur right away.
4. Adjust squeegee pressure, angle and off-contact to insure proper shear and lay down of printed ink. Properly setting squeegee, flood bar and off-contact will improve print performance, screen life and squeegee durability.
5. Use an underlay print when printing UltraMix® 7900 inks on dark fabrics. Use the 7901LF White as an underlay white ink. To achieve a softer hand and faster production speeds, print the under base ink through finer mesh counts (230 to 305 t/in or 90 to 120 t/cm).

UltraMix® 7900 PF COLOR SYSTEM
EXTRA LOW CURE

UltraMix® 9000 LF NYLON

The UltraMix® 9000 Color System for nylon is formulated to provide simulations of the PANTONE® Color Standards for light- and dark-colored nylon fabrics.

UltraMix® 9000 are fast-flashing, two-part plastisol-based inks specifically formulated for printing on normally hard-to-print nylon. UltraMix® 9000 colors are also well suited for fine-detail and halftone printing.

See below for available colors:

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UltraMix® 9000 NYLON COLOR SYSTEM

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FEATURES

- Simulates PANTONE® colors for light and dark nylon fabrics.
- Fast flashing, 2-part plastisol for printing onto normally hard to print nylon.
- Well suited for fine detail and halftone printing.

UltraMix® 9000 LF* COLORS

9202LF Yellow (GS)	9212LF Violet	9224LF FL. Magenta
9204LF Yellow (RS)	9214LF Blue (RS)	9226LF FL. Violet
9206LF Orange	9216LF Blue (GS	9228LF FL. Green
9208LF Red (BS)	9218LF Green	9201LF White
9210LF Purple	9220LF Brown	9222LF Black

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Nylon, cotton and some polyester or cotton/polyester blends. Always test print for adhesion and possible bleeding or dye migration.
INK APPLICATION	Color system must be mixed with 900LF Catalyst (available in 2 oz. And 8 oz. containers) for best adhesion to nylon. Ink may be used immediately after mixing. Pot life of catalyzed ink is 4 to 8 hours. It should be hand stirred in the following proportions: By Volume: 16 Parts Ink to 1 Part 900LF Catalyst By Weight: 20 Parts Ink to 1 Part 900LF Catalyst
SCREEN MESH AND EMULSION	110 to 305 t/in or 43 to 120 t/cm Monofilament Any direct or indirect lacquer resistant emulsion. Use 20 to 30 micron capillary film and retensionable frames at 20 to 40 Newtons.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 or 70-90-70 Triple Durometer: Sharp Edge
CURE TEMPERATURES	285°F to 325°F (141°C to 163°C). NOTE: When curing/fusing at lower temperatures, a longer retention time will be required for the entire ink film to reach the prescribed temperature. Wash test product before and during a production run .
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air. Always use oldest catalyst first and tightly seal containers after use.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If necessary, ink may be thinned, by volume, with 1% to 3% Mineral Spirits or 1% to 5% 1110LF Curable Reducer. It is important not to use reducers that are 100% plasticizer, because they may create adhesion problems and make the finished ink film less durable.

SPOT FLASHING

For multi-color printing on nylon, especially shell nylon, it is important to pre-heat the nylon fabric in order to help control fabric shrinkage. On most nylon fabrics, spot flashing between colors is critical. The 9000 Series inks will spot dry, with low after flash tack, in 3 to 8 seconds depending on the spot dryer used. Too much heat/time may cause the ink to become sticky and the fabric to shrink too much. Adjust flash unit accordingly. When spot drying, the ink should be just dry to the touch, with no lift off, but not totally fused. Totally fusing any of the flashed colors may cause intercoat adhesion problems with the inks printed on top of the flashed ink. Final curing/fusing will occur in the dryer.

IMPORTANT INFORMATION

1. In order to achieve the best color matching results using the 9000 UltraMix® Nylon Color System, the specified primary colors for the system must be used. Using other than the specified primaries will produce inaccurate matching results. All of the 9000 Series primary colors may printed as is, with 900LF Catalyst, or inter-mixed as necessary.
2. The 9000 UltraMix® inks are not low bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. Bleeding or dye migration may not occur right away.
3. Adjust squeegee pressure, angle and off-contact to insure proper shear and lay down of printed ink. Proper settings of squeegee, flood bar and off-contact will improve print performance, screen life and squeegee durability.
4. Adding too much reducer or other additives to the 9000 UltraMix® inks may cause curing/fusing, adhesion or increased dye migration problems.

We Do The ThINKing For You.

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At **International Coatings** our mission is to provide superior products that create a competitive advantage for you. For hard to print nylon, our nylon series inks have long been recognized as the best.

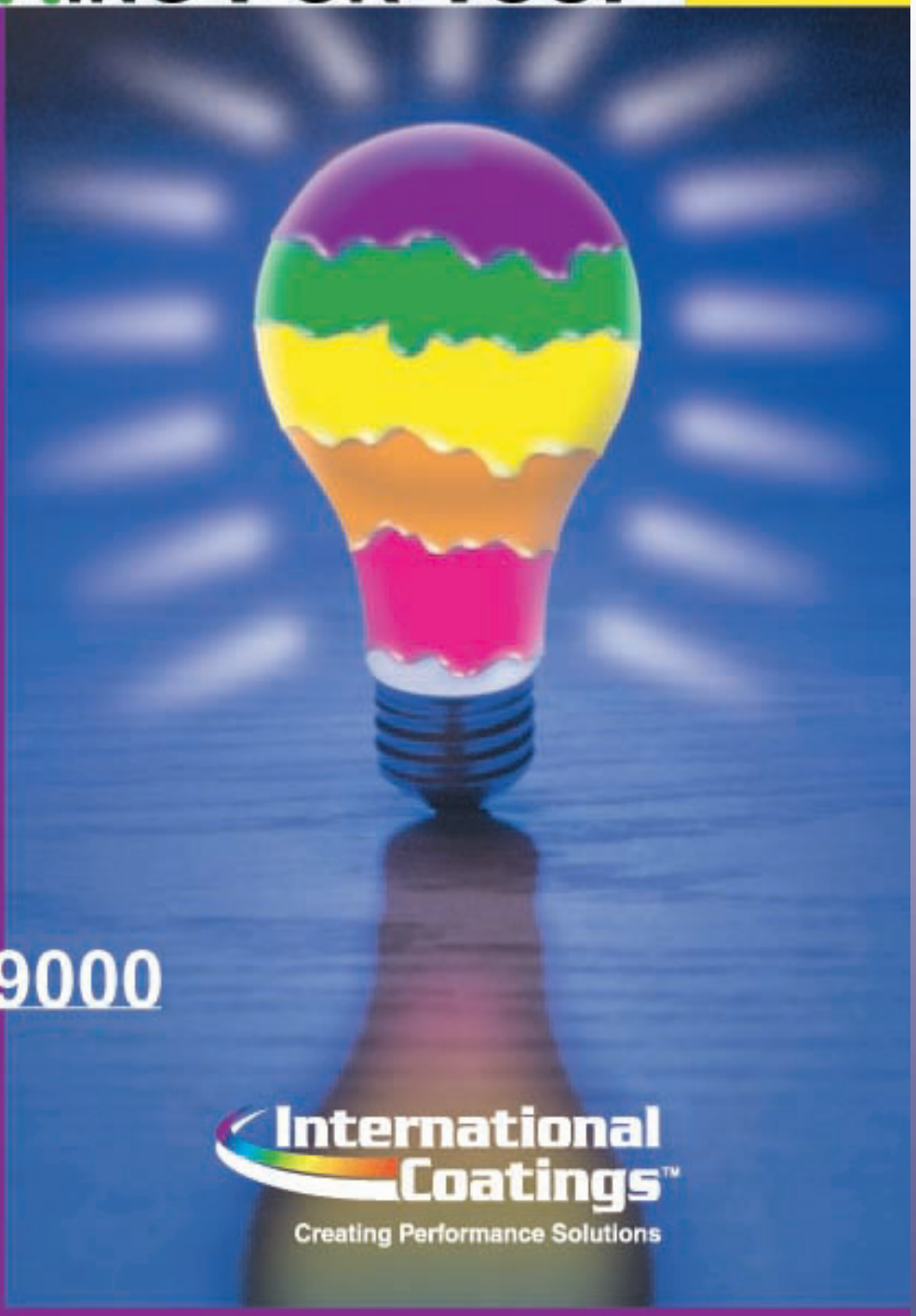
And now, our new **UltraMix™ 9000 Nylon** Color System allows printers to simulate PANTONE® Colors with high performance nylon inks. This fast flashing plastisol based system works equally well on light and dark colored nylon fabrics, and is well suited for fine detail and half tone printing.

Thirteen primary colors plus black and white means fewer ingredients in simulating PANTONE® Colors. Simply look up the desired formulation in the UltraMix™ 9000 ink management software (PC & Mac compatible), mix and print. UltraMix™ 9000 inks offer not only easy to match colors but superior performance and adhesion.

UltraMix™ 9000 is your competitive advantage when printing on nylon. **International Coatings** is your competitive advantage for outstanding products and superior customer service.

UltraMix™ 9000

- Outstanding Performance and Adhesion
- 13 Mixing Colors
- Accurate Color Formulas
- User Friendly Formulation and User Guide Software
- Worldwide Distribution
- Superior Service



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UltraMix® 11000 LF ATHLETIC

The UltraMix® 11000 Athletic Color System is formulated to provide simulations of the PANTONE® Color Standards for light-and dark-colored nylon jersey fabrics.

UltraMix® 11000 inks are very durable, high viscosity plastisols formulated for printing directly on most athletic garments, offering superior performance and adhesion.

See chart below for available colors:

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WE DO THE THINKING FOR YOU.

UltraMix® 11000

At **International Coatings** our mission is to provide superior products that create a competitive advantage for you.

And now, our new **UltraMix® 11000 Athletic** Color System allows printers to simulate PANTONE® Colors for light and dark colored nylon jersey fabrics. This very durable, high viscosity plastisol is formulated for printing directly on most athletic garments.

Thirteen primary colors plus black and white means fewer ingredients in simulating PANTONE® Colors. Simply look up the desired formulation in the UltraMix® 11000 ink management software (PC & Mac compatible), mix and print. UltraMix® 11000 inks offer not only easy to match colors but superior performance and adhesion.

UltraMix® 11000 is the answer if you are looking for that competitive advantage in printing on nylon jersey fabrics. **International Coatings** is your competitive advantage for outstanding products and superior customer service.

International Coatings™
Creating Performance Solutions

UltraMix® 11000 Athletic

- Outstanding Performance and Adhesion
- 13 Mixing Colors Plus Black and White
- Accurate Color Formulas
- User Friendly Formulation and User Guide Software
- Worldwide Distribution
- Superior Service

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11000 SERIES ATHLETIC MULTIPURPOSE

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FEATURES

- A very durable, high viscosity plastisol ink formulated for printing directly onto most athletic garments.
- Can also be used for cold peel transfers and as a flock adhesive.
- Colors available match the most popular athletic colors used for athletic garment printing.

1100 SERIES LF* COLORS

1106LF Ath. Purple
1112LF Ath. Sky Gray
1113LF Ath. White
1116LF Ath. Black
1127LF Ath. Gold
1136LF Ath. Tenn. Orange
1138LF Ath. Winter Orange
1143LF Ath. Winter Red
1146LF Ath. Scarlet
1153LF Ath. Cardinal
1156LF Ath. Maroon

1160LF Ath. Purple
1164LF Ath. Sky Gray
1166LF Ath. White
1168LF Ath. Black
1169LF Ath. Gold
1170LF Ath. Tenn. Orange
1172LF Ath. Winter Orange
1173LF Ath. Winter Red
1176LF Ath. Scarlet
1182LF Ath. Cardinal
1184LF Ath. Maroon

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Nylon mesh, cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run for adhesion and possible dye migration. 1100 Series plastisols are not low bleed inks. Testing is required for bleed resistance on cotton/polyester blends.
INK APPLICATION	The 1100 series inks can be printed directly from the container or for greater durability and adhesion on problem fabrics (micro-mesh), mix with the 900LF Catalyst. In general, if the ink can surround the fiber of the fabric being printed, the use of 900LF Catalyst may not be necessary. Catalyst must be purchased separately if needed. 900LF Catalyst is available in 2 oz. and 8 oz. containers and when used should be throughly hand stirred into the ink to the following proportions: By volume = 16 parts ink to 1 part catalyst By weight = 20 parts ink to 1 part catalyst 1 oz. Catalyst to 1 pint of ink 2 oz. Catalyst to 1 quart of ink 8 oz. Catalyst to 1 gallon of ink Ink may be used immediately after mixing. Do not mix more ink than is needed for a job. Do not under catalyze the ink. Pot life of mixed ink is 4 to 8 hours. Over catalyzation will shorten pot life of ink. 900LF Catalyst must be purchased separately.
SCREEN MESH AND EMULSION	60-160 t/in or 24-63 t/cm Monofilament 4XX to 6XX = Coarse athletic fabrics (mesh football jerseys) Any direct or indirect lacquer proof emulsion. Use 35 to 70 micron capillary film .
SQUEEGEE	75-70 Durometer: Bevel or sharp edge
CURE TEMPERATURE	325°F (163°C) Entire ink film. Test dryer temperatures before a production run. Wash test printed product before beginning production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

MODIFYING INK

If necessary, mixed ink may be thinned with 1% to 5%, by volume, of mineral spirits or 1% to 5%, by volume, of 1110LF Curable Reducer. It is important not to use reducers that are 100% plasticizer, because they may decrease adhesion and make the finished ink film less durable.

SPECIALTY PRODUCTS

When vibrant colors and bright whites are not enough, International Coatings™ comes through with dimensional, glitter, reflective, metallic, puff and other special-effect inks to meet the need.

With the variety of inks available in our product line, there is no limit to what your imagination can produce. By using specialty inks such as our holographic glitter ink, gel gloss ink, metallic shimmer ink, or even our bead adhesive to add caviar beads to your textile prints, ideas can become reality.

Check out our specialty product line:

HIGH DENSITY INKS (HD)

These inks produce dramatic 3-dimensional, heavy-deposit prints.

Because of reduced tack and increased flow characteristics, these high-viscosity plastisol inks will print through thick stencils. Their unique flash time will speed up production and dwell time in the dryer.

Extremely sharp edges can be produced for maximum effect. Available as 142LF HD Base, 143LF HD White and 144LF HD Black.

HOLOGRAPHIC GLITTER

140 LF Holographic Glitter inks are formulated to produce a dramatic and unique holographic effect with high gloss and excellent durability.

The inks contain special holographic glitter flakes in an ultra-clear base. 140LF can be printed directly to fabric or printed as a cold-peel transfer.

108 LF GLOW-IN-THE-DARK

Our Glow-In-The-Dark (Phosphorescent) ink produces a bright, greenish glow in a darkened environment, after exposure to a light source.

This product is ready-to-use from the container and can be used for direct print or cold peel transfer applications.

155 LF LB SHIMMER PLASTISOL

155LF LB (low-bleed) Shimmer is a translucent iridescent glitter flake in a very clear base. It is a press-ready plastisol used for creating special sparkling effects on garments.

156 LF, 157 LF METALLIC SHIMMERS

Our 156LF Metallic Silver and 157LF Metallic Gold Plastisols are all press-ready.

They provide a bright, non-tarnishing metallic sparkle to printed garments. The inks consist of fine, shimmering glitter flakes in a low-bleed, low-fusion, easy-to-print base. Easy printing is a real plus for manual and automatic printers when it comes to wear-and-tear on people and equipment.

3801 LF PLASTISOL FOIL ADHESIVE

3801 LF is a clear plastisol adhesive used to produce brilliant metallic foil designs on textiles.

3801 LF adhesive can be printed directly onto the fabric. Foil is then applied to the dried adhesive.

The adhesive also can be printed directly on the foil in a way similar to printing a conventional transfer. Designs made with 3801LF adhesive can be applied to light or dark fabrics.

3805 LF SUPER STRETCH CLEAR

This specially formulated plastisol provides exceptional stretch and is great for use on Lycra, Spandex, knitted rib, or combination stretch fabrics.

This versatile product can also be used as a stretch additive, foil adhesive, or as a clear carrier for PVC or glass beads. When added to regular plastisol inks, it adds a nice glossy finish.

3806 LF GEL GLOSS CLEAR

Formulated to produce a very glossy “wet” look when printed on top of other flashed plastisol inks, this unique plastisol product is not sticky or tacky after curing.

It also can be used as a caviar bead (PVC or glass) adhesive.

3807 LF PHTHALATE FREE GEL GLOSS CLEAR

This product produces the same “wet” look when printed on top of other flashed plastisol inks, however it is Phthalate free.

Also adds a very glossy finish which is non-tacky or sticky after curing. This product can also be used as a clear carrier or adhesive for PVC or glass caviar beads or as a low-tack “glitter base” for a “dry look” or hand-dipped effect.

3809 LF SPECIAL FX CLEAR

This is a plastisol clear product which achieves a very high glossy finish when used as a base or overprint.

Special FX Clear works well as a high-density clear for “stacking” purposes and has minimal after-flash tack. Cures at low temperatures.

199 LF LOW BLEED FIRST DOWN CLEAR

This low bleed product works as a base to help prevent bleeding when a white base is not wanted. It is a medium viscosity plastisol clear ink with fast flash and low bleed characteristics.

Printed wet, 199 LFFirst Down Clear also works to “wet trap” fibers when printing a low bleed white on top.

720 LF SOFTHAND CLEAR

This product is a super clear, curable extender base plastisol specifically formulated to soften, extend and increase the flow characteristics of most plastisol inks.

1199 LF STRETCH INK ADDITIVE

1199 LF Stretch Ink Additive can be easily mixed into Multipurpose, 700 Series or 1100 Series plastisols to produce increased elongation on Lycra, Spandex and other stretch fabrics.

1199LF is a 100% solids ink that contains no solvents. The printed ink has excellent laundry resistance.

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HD DIMENSIONAL INK

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FEATURES

- Produce special 3-D, heavy deposit, smooth matte finish prints.
- Prints through thick stencils.
- Unique flash time will increase production and speed dwell time in the dryer.
- Extremely sharp edges can be produced.

HD DIMENSIONAL LF* COLORS

141LF HD Clear 143LF HD White
142LF HD Base 144LF HD Black

Colors may be created using Pigment Concentrates or Color Boosters. Standard formulas may need adjusting to create darker colors.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton and some cotton/polyester blends. Pre-print and test all fabrics for dye migration, ink adhesion, wash fastness and other desired properties before beginning any production.
INK MODIFIERS	Not Recommended
SCREEN MESH	Ink-deposit thickness will be determined by thread size and stencil thickness. For most heavy-deposit screens use a mesh count in the 60 to 110 t/in or 24 to 43 t/cm range. Follow manufacturer's recommended tension for mesh used.
EMULSION	Direct/indirect capillary films should be used. For best results choose a thickness between 200 and 400 microns. Stencil films purchased at required thickness levels allow for better control of ink deposit. Exposure times should be calculated for best results.
SQUEEGEE	70-80 Durometer
CURE TEMPERATURE	325°F (163°C). The efficiency of the oven and length of heat tunnel will determine oven dwell time. Dwell time should be increased with a thick ink deposit. Failure to fuse ink properly may cause cracking poor adhesion and poor wash fastness.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

PRINTING TECHNIQUES

Set up the screens as with any print, making sure there is plenty of free mesh around the design. Choose the proper squeegee length and stroke distance for the design dimensions. Select a squeegee of 70-80 durometer. More control can be achieved using double and triple-ply blades. Angle the squeegee to increase deposit. The floodbar should be adjusted to provide maximum stencil loading. When the screen is flooded properly, it will take less effort for the squeegee to transfer the ink.

Use an off contact or peel setting to release ink from the stencil. Off-contact is a critical adjustment. If it is not high enough, the ink will not release from the screen. Set the print and flood speed to the slowest setting; then increase the speed, as the design permits. Apply minimal squeegee pressure; only enough to transfer the ink. Too much pressure will push the ink into the fabric. The idea is to lay the ink on the surface. For maximum height, flash the print and stack on another layer. Depending on the thickness of the first print, additional prints may require increase in off contact. By layering the print, image results are better controlled.

HOLOGRAPHIC GLITTER PLASTISOL

General Information:

140LF* Holographic Glitter Ink is formulated to produce a dramatic and unique holographic effect, with high gloss and excellent durability. The ink consists of a special Holographic glitter flake in an ultra clear base. This product can be printed directly to fabric or printed as a cold peel transfer.

*(LF) Denotes Lead Free (Contains Less Than 0.025% Lead)

Recommended Substrates:

Print on 100% cotton fabric. Not recommended for dyed polyester fabrics. Bleed Resistance: Poor

Screen Mesh and Emulsion:

Mesh: 33T (13 threads/cm). Use direct emulsion or a thick Capillary film.

Squeegee: Sharp edge, 65 to 70 durometer. Print with squeegee at 45-degree angle to screen mesh, off contact. Softer pallet will help increase ink deposit.

Transfer Paper: Use a high gloss, cold peel paper for best results. The result of using conventional cold peel papers will be loss of some gloss.

Direct Print Fusion Temperature:

Fuse at 325°F to 330°F (163°C to 166°C). The efficiency of the oven and length of heat tunnel will determine oven dwell time. Due to the reflective properties of glitter and the heavy deposit of ink, careful evaluation of dryer settings is very important. Failure to fuse the ink properly may cause cracking, when stretched, poor adhesion and poor wash fastness.

Gel Temperature for Transfer Printing:

Gel at 200°F to 230°F (94°C to 110°C). This represents ink temperature, not dryer settings. Adjust dryer settings as necessary.

Transfer Application:

Application Temperature: 350°F to 375°F (176°C to 190°C)

Application Time: 12 to 15 Seconds

Application Pressure: Medium (40 to 50 lbs.) PEEL COLD

HOLOGRAPHIC GLITTER PLASTISOL
CONTINUED

Ink Modifiers:

1110LF Curable Reducer

Cleanup:

Mineral Spirits or Environmentally Friendly Screen Wash for Plastisol.

Storage:

Keep indoors and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 320°C). Avoid storage in direct sunlight or in extreme temperature conditions.

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108 GLOW-IN-THE-DARK

FEATURES

- 108LF* is a Glow-in-the-Dark (phosphorescent) plastisol screen printing ink that produces a bright, greenish glow when exposed to light and viewed in a darken area.
- 108LF can be used for direct print or cold peel transfer applications.
- Ready for use from the container.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% cotton and some cotton/polyester white fabrics. For best results on dark fabrics, 108LF must be printed over a white base or Puff.
INK APPLICATION	**Direct Prints:** 108LF Glow-in-the-Dark ink should be used right from the container without any modifications. If thinning is required, use 1% to 5% by volume of 1110LF Curable Reducer. Adding too much reducer or other additives will diminish opacity and glow. **Transfers (cold peel):** It is important that the inks are only partially gelled, otherwise the inks will not have adequate adhesion during the final transfer application
SCREEN MESH AND EMULSION	60-230 t/in or 24-90 t/cm Monofilament Use 110-230 t/in or 43 –90 t/cm Monofilament for under basing. Any direct or indirect lacquer resistant emulsion. Use 35 to 70 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp Edge 60-90-60 Triple Durometer: Sharp Edge
CURE TEMPERATURE	Direct prints: 325°F (163°C) entire ink film. Transfers: Gelation 225°F to 260°F (107°C to 127°C)
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

IMPORTANT INFORMATION

1. 108LF Glow-in-the-Dark is a very transparent ink and works best when printed on white fabric or over a white base.
2. 108LF Is not a low bleed ink. Always test print the actual fabric to be printed before beginning production. We suggest long term testing on fabrics to determine if there are going to be any dye migration or bleeding problems. Dye migration or bleeding may not occur right away.
3. Do not fuse or cure the ink at too high a temperature (over 330°F or 166°C) as the phosphorescent pigment used in the ink can be damaged and not glow properly.
4. Adding too much reducer, soft hand additive or clear base will diminish glow.
5. Heavier ink deposits of 108LF will result in increased phosphorescence (glow brightness) and a longer glow after exposure to a bright light source. Depending on the amount of light exposure to the ink, the darkness of the of the area where the ink is being viewed and the eye sensitivity of the person viewing the ink, the glow may be visible anywhere from 30-seconds to several minutes.
6. When making cold peel transfers for dark fabrics, back transfers with white ink.
7. Cold peel transfers should be applied at 350°F to 375°F (177°C to 191°C), medium pressure (40 lbs.) for 10 to 15 seconds.

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155 SHIMMER PLASTISOL

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FEATURES

- 155LF* LB** Shimmer is a translucent, iridescent glitter flake in a very clear base.
- It is a press ready plastisol used for creating special sparkling effects on garments.
- 155LF LB Shimmer can be used on synthetic fabrics or blends.

*LF (Lead Free) Contains less than 0.025% lead.
**LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	155LF LB (Low Bleed): 100% cotton, cotton/polyester blends. 955LF: Nylon Shimmer (jackets, banners, bags etc.)
INK APPLICATION	155LF LB Shimmer can be printed onto a garment as is, or printed over other colors to highlight areas of a design. When printing multiple colors, Shimmer should be printed last. Shimmer should be printed without any modifications. If modification is necessary use the following reducers: 155LF LB: 1099LF Low Bleed Curable Reducer (Add 1% to 10% by volume) 955LF: Reduce with Mineral Spirits (Add 1% to 3% by volume)
SCREEN MESH AND	50 - 61 t/in or 20-24 t/cm Monofilament Any direct or indirect lacquer proof emulsion.
SQUEEGEE	60-65 Durometer: Sharp or beveled edge
CURE TEMPERATURE	325°F (163°C) entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, or 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

IMPORTANT INFORMATION

1. Low bleed inks are not non-bleed, so pre-test ink with fabric for bleeding or dye migration before beginning a production run. Longer term testing is recommended for problem fabrics, as dye migration or bleeding may not occur immediately.
2. Use International Coatings' Multipurpose Fluorescents or Process Colors for tinting Shimmer to other shades. The PANTONE® color concentrates may also be used for tinting. Do not mix Shimmer with opaque inks as they will block out or cover the Shimmer glitter flake.
3. With 955LF Nylon Shimmer it will be necessary to add the 900LF Catalyst for proper adhesion to nylon. The ratio of ink to catalyst is 16 parts ink to 1 part catalyst by volume and 20 to 1 by weight.
4. When printing Shimmer over the top of other colors or puff ink, it is best to flash dry the underlying colors.
5. Print Shimmer last in the design to avoid excessive pick-up of the glitter flakes.
6. The time/temperature cycle is very important when printing through very open mesh screens. It may take the thicker ink film a little longer to reach the proper fusion temperature than a standard ink. Always test for proper fusing before beginning a production run.
7. Too high of a temperature in the dryer, above 325°F (163°C) may reduce the brilliance of the Shimmer.
8. When printing on nylon with the 955LF Shimmer, it is recommended to print with one squeegee stroke, off contact, with no flood stroke. Use a sharp squeegee for nylon printing.

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156, 157 METALLIC SHIMMERS

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- 156LF* Metallic Silver and 157LF Metallic Gold LB** Shimmer Plastisols are press ready.
- They provide a bright, non-tarnishing metallic sparkle to printed garments.
- The inks consist of a fine, shimmering glitter flake in a low bleed, low fusion, easy to print base. This is a real plus for hand and automatic printers, when it comes to wear and tear on people and equipment.

*LF (Lead Free) Contains less than 0.025% lead.
**LB (Low Bleed)

Application & Storage Information

RECOMMENDED FABRICS	100% cotton, and some cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	156LF & 157LF METALLIC SHIMMERS should be printed onto a garment right from the container without any modifications. Thinning this product may reduce the metallic sparkle. If modification is necessary use the following reducers: **DARK GARMENTS**: Use 1099LF Low Bleed Curable Reducer (Add 1% to 10% by Volume). **LIGHT GARMENTS:** Use 1110LF Curable or 1099LF Low Bleed Curable Reducer (Add 1% to 10% by Volume).
SCREEN MESH AND EMULSION	86 - 160 t/in or 24 - 63 t/cm Monofilament Any direct or indirect lacquer proof emulsion.
SQUEEGEE	60-70 Durometer: Sharp or beveled edge
CURE TEMPERATURE	325°F (163°C) entire ink film. Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, or 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

IMPORTANT INFORMATION

1. 156LF & 157LF Shimmers are (LB) low bleed inks, not non-bleed inks. On some types of fabric, bleeding or dye migration may occur. Always test print the fabric to be printed before beginning production. It is best to do some long term testing on some fabrics to determine if they are going to bleed. Bleeding or dye migration may not occur immediately.
2. Print 156LF or 157LF Shimmer last in a design, when printing wet on wet, to avoid excessive pick-up of the glitter flakes.
3. Too high of a temperature in the dryer, above 350°F (177°C), may reduce the brilliance of the Metallic Shimmer inks.
4. The Metallic Shimmers will spot dry, with a very low after flash tack, in 2 to 8 seconds depending on the spot dryer used. This allows the inks to be printed earlier in a design when desired.
5. 156LF Metallic Silver, because of the quick flash time and low after flash tack, can be used as an under base instead of white. In some instances, this method will offer a softer hand with greater opacity than white ink.
6. The Metallic Shimmers have good opacity on dark fabrics. However, in some instances, when printing through finer mesh counts, double hits with or without a flash may be needed. This is especially true when printing 157LF Metallic Shimmer on dark fabrics.

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3801 PLASTISOL ADHESIVE

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- 3801LF* is a clear plastisol adhesive used to produce brilliant metallic foil designs on textiles.
- The adhesive can be printed directly onto the fabric and the foil applied to the dried adhesive. The adhesive can also be printed directly on the foil as a conventional transfer would be printed (mirror image).
- Designs made with 3801LF adhesive may be applied to light or dark fabrics.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	100% Cotton and some cotton/polyester blends.
ADHESIVE APPLICATION	The 3801LF Foil Adhesive should be printed right out of the container without any modifications. Stir adhesive prior to use.
SCREEN MESH AND EMULSION	74 to 110 t/in or 30-43 t/cm Monofilament Any direct or indirect lacquer proof emulsion. Use 70 to 80 micron capillary film for best results. Recommend: 86 to 110 t/in or 34-43 t/cm mesh for T-Shirts Recommend: 74 to 86 t/in or 30-34 t/cm mesh for sweatshirts
SQUEEGEE	60-75 Durometer: Sharp or beveled edge
CURE TEMPERATURE	For direct printed fabrics: 325°F (163°C) entire ink film. For transfer printing (adhesive on foil): 240°F to 275°F (116°C to 135°C) Test dryer temperatures and wash test printed product before and during a production run.
CLEAN-UP	Mineral Spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon or 5 Gallon Containers.
STORAGE OF INK CONTAINERS	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

FOIL APPLICATION

Foil is applied colored side up and aluminum looking (dull) side down. Rub foil with eraser immediately after application to help remove any wrinkles. Allow transfer to cool completely (20 to 30 seconds) after application before removal of foil sheet. Pull foil sheet off slowly.

It can be helpful to tint the 3801LF Foil Adhesive, to the color of the foil being applied, with a small amount of conventional plastisol. This process will help to keep small pinholes in the applied foil film from being noticeable. As example: Use a few grams of yellow or gold plastisol in the 3801LF Adhesive when using gold foil. Use a few grams of black or gray plastisol in the 3801LF Adhesive when using silver foil.

APPLICATION TEMPERATURE

300°F to 325°F (149°C to 163°C). Try lower temperature first for best results.

APPLICATION TIME

10-15 Seconds

APPLICATION PRESSURE

T-Shirts = Medium (40lbs.)

Sweatshirts = Medium to Heavy (40lbs. to 60lbs)

The brightest foil effect will result when the foil is first removed. To achieve a textured matte finish foil, re-seal the garment or hat in the transfer press for 3-4 seconds after the foil carrier film has been removed.

IMPORTANT INFORMATION

For best durability of the foil after it is applied, it is recommended that the garment be hand washed or machine washed (delicate cycle) inside out and line or air dried. Do not use bleach. Do not iron printed area.

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3805 SUPER STRETCH CLEAR

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- 3805LF Super Stretch Clear is specially formulated plastisol ink, which provides exceptional stretch.
- Used as a stretch additive, increases stretch properties of other plastisol inks.
- Can be used as a foil adhesive, clear carrier for PVC or glass beads.
- Adds glossy finish to regular plastisol inks.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Stretch fabrics such as Lycra/Spandex, 100% cotton knitted rib, or combinations of both. Not recommended for 100% polyester.
HOW TO USE	3805LF Super Stretch Clear should be printed right from the container without modification. On stretch fabrics such as Lycra/Spandex or 100% cotton knitted rib material use 3805LF Super Stretch Clear as a base when printing regular plastisol inks over the top of it. Use a final overprint to create a wet or glossy wet look. As an additive, add from 10% to 25% to any plastisol ink to improve the stretch and elongation characteristics of that ink. Additions over 25% will diminish the light colored inks opacity on dark colored materials. 3805LF is not a low bleed product. Preprint and test product on all fabrics for possible dye migration.
SCREEN MESH AND EMULSION	60-110 t/in or 24-43 t/cm Monofilament Mesh. Mesh counts higher than 110 t/in or 43 t/cm may not deposit enough ink to ensure proper stretch characteristics. Any direct or indirect solvent resistant emulsion. Use 35 to 70 micron.
SQUEEGEE	65-75 Durometer: Sharp Edge Print with squeegee at 45 degrees to screen mesh. Softer pallet will help increase ink deposit and keep ink on surface. Print with off contact for best results.
CURE TEMPERATURES	325°F to 350°F (163°C to 171°C) Fusion/cure temperature for entire ink film. Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric and the type of heat source used. Plastisols actually achieve the proper fusion point as soon as the innermost section of the ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65° F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

3805 SUPER STRETCH CLEAR

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3806 GEL GLOSS CLEAR

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FEATURES

- Plastisol based product that produces a "wet" look when printed on top of other flashed plastisol inks.
- Very glossy product, which is not sticky or tacky after curing.
- 3806LF* Gel Gloss Clear can be used as a clear carrier/adhesive for PVC or glass caviar beads.
- Also, this product can be used as a low tack glitter base.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

HOW TO USE	3806LF Gel Gloss Clear should be printed right from the container without modification. Use as a final overprint (print-flash-print method) to produce a clear, glossy wet look. Do not print product wet-on-wet. 3806LF Gel Gloss Clear is not a low bleed product. Pre-print and test all fabrics for possible dye migration. Make sure the 3806LF Gel Gloss Clear is completely cured for best appearance. For best durability, it is recommended that the printed garment be hand washed or machine washed (delicate cycle) inside out and dried with low heat. Do not use bleach or dry clean. Do not iron printed area.
SCREEN MESH AND EMULSION	24-110 t/in or 10-43 t/cm Monofilament Mesh. Any direct, indirect or capillary lacquer resistant emulsion. Use 35 to 70 micron. For HD or raised look use 200 to 600 micron capillary film.
SQUEEGEE	65-75 Durometer: Sharp or Beveled Edge 60-90-60 Triple Durometer: Sharp Edge
CURE TEMPERATURES	325°F to 350°F (163°C to 171°C) Fusion temperature for entire ink film. Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric and the type of heat source used. Plastisols actually achieve the proper fusion point as soon as the innermost section of the ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

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3807 PF GEL GLOSS

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FEATURES

- Phthalate Free (PF*) Plastisol based product that produces a "wet" look when printed on top of other flashed plastisol inks.
- Very glossy product, which is not sticky or tacky after curing.
- 3807LF** Gel Gloss Clear can be used as a clear carrier/adhesive for PVC or glass caviar beads.
- Can be used as a low tack glitter base for a “dry-look” or hand dipped effect.

*PF (Phthalate Free) **LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

HOW TO USE	3807LF Gel Gloss Clear should be printed right from the container without modification. Use as a final overprint (print-flash-print method) to produce a clear, glossy wet look. Do not print product wet-on-wet. 3807LF Gel Gloss Clear is not a low bleed product. Not recommended to be printed over some inks or low bleed underbases that contain blowing agents. Pre-print and test all fabrics before a production run. Make sure the 3807LF Gel Gloss Clear is completely cured for best appearance. To maintain maximum gloss level when using 3807LF Gel Gloss Clear, allow printed area to cool before stacking garments. Gloss levels may diminish if garments are stacked hot. For best durability, it is recommended that the printed garment be hand washed or machine washed (delicate cycle) inside out and dried with low heat. Do not use bleach or dry clean. Do not iron printed area.
SCREEN MESH AND EMULSION	24-110 t/in or 10-43 t/cm Monofilament Mesh. Any direct, indirect or capillary lacquer resistant emulsion. Use 35 to 70 micron. For HD or raised look use 200 to 600 micron capillary film.
SQUEEGEE	65-75 Durometer: Sharp or Beveled Edge 60-90-60 Triple Durometer: Sharp Edge
CURE TEMPERATURE	325°F to 330°F (163°C to 166°C) Fusion temperature for entire ink film. Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric and the type of heat source used. Plastisols actually achieve the proper fusion point as soon as the innermost section of the ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

3807 PF GEL GLOSS

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3809 SPECIAL FX CLEAR

FEATURES

- A plastisol “Clear” that achieves high gloss when used as a base or overprint.
- Very glossy product, which is not sticky or tacky after curing.
- 3809LF** Gel Gloss Clear works very good as a High Density clear for “stacking”.
- Has minimal after flash tack and cures at lower temperatures.

**LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

HOW TO USE	3809LF Special FX Clear should be printed right from the container without modification. Use as a final overprint (print-flash-print method) to produce a clear, glossy wet look. Do not print product wet-on-wet. 3809LF Special FX Clear is not a low bleed product. Not recommended to be printed over some inks or low bleed underbases that contain blowing agents. Pre-print and test all fabrics before a production run. Make sure the 3809LF Special FX Clear is completely cured for best appearance. To maintain maximum gloss level when using 3809LF Special FX Clear, allow printed area to cool before stacking garments. Gloss levels may diminish if garments are stacked hot. For best durability, it is recommended that the printed garment be hand washed or machine washed (delicate cycle) inside out and dried with low heat. Do not use bleach or dry clean. Do not iron printed area.
SCREEN MESH AND EMULSION	24-110 t/in or 10-43 t/cm Monofilament Mesh. Any direct, indirect or capillary lacquer resistant emulsion. Use 35 to 70 micron. For HD or raised look use 200 to 700 micron capillary film.
SQUEEGEE/FLOODBAR	65-75 Durometer: Sharp or Beveled Edge 60-90-60 Triple Durometer: Sharp Edge For High Density — Use a squeegee for the flood bar with firm pressure.
CURE TEMPERATURE	325°F (163°) Fusion temperature for entire ink film. Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric and the type of heat source used. Plastisols achieve proper fusion when the entire ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at **65°F to 90°F (18°C to 32°C).** Avoid storage in direct sunlight or in extreme temperature conditions.

3809 SPECIAL FX CLEAR

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199 FIRST DOWN CLEAR

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FEATURES

- 199LF* works as a LB** base to help prevent bleeding when a white base is not wanted.
- A medium viscosity plastisol clear ink with fast flash and low bleed characteristics.
- Printed wet 199LF LB First Down Clear works to “wet trap” fibers when printing a LB white on top.

*LF (Lead Free) Contains less than 0.025% lead.
**LB (Low Bleed)

Application & Storage Information

HOW TO USE	Use 199LF as a low bleed base for other colors to be printed over instead of white. This hides any mis-registration issues from art, screens or press. Print 199LF First Down Clear right from the container without modification. Print and “flash” 199LF just as you would a base white. You can also print 199LF wet just before a low bleed white and then flash. The 199LF used this way will “wet trap” the shirt fibers down which allows for a smoother surface for the base white. 199LF LB First Down Clear is a low bleed product, not a non-bleed product. Preprint and test all fabrics for possible dye migration prior to a production run.
SCREEN MESH AND EMULSION	Fleece: 86-110 t/in or 34-43 t/cm Monofilament Jersey T-Shirt: 110-160 t/in or 43-63 t/cm Monofilament Any direct or indirect solvent resistant emulsion. Solvent resistant capillary film may also be used.
SQUEEGEE	65-75 Durometer: Sharp Edge
CURE TEMPERATURES	Ink “flash” temp: 240°F to 275°F (116°C to 135°C) It is important that the 199LF ink is flashed, just dry to the touch, and not totally cured during flashing. Ink “Cure” temp: 325°F (163°C) entire ink film. The optimum time/temperature cycle will vary with the amount of ink deposited and the type of heat source used. Test dryer temperatures before a production run. Wash test product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

199 FIRST DOWN CLEAR

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720 SOFTHAND CLEAR BASE

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FEATURES

- 720LF* Softhand Clear is a super clear, curable extender base plastisol.
- This product is formulated to soften, extend and increase the flow characteristics of most plastisol inks.

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

HOW TO USE	720LF Softhand can be added to 700 Series, Multipurpose, 1100 Series, 7000 Series and 800 Series inks for improved hand, cost and printability. 720LF is very clear and is highly recommended for extending any process color, especially the Pro-Brite™ Process Colors. For a softer hand, add approximately 10% to 20%, by volume, of 720LF Softhand Clear. More may be added, if necessary, without affecting the cure or fusing of the mixed ink. The more Softhand added, the less opaque the mixed ink will be. Using the 720LF Softhand in 800 Series inks to print on light colored fabrics greatly lowers the cost of the mixed ink. Adding 720LF Softhand to 800 Series inks in amounts higher than 20%, by volume, may shift mixed Pantone colors. **NOTE**: The addition of 720LF Softhand Clear reduces the bleed resistance of low bleed inks.
CURE TEMPERATURE	325°F (163°C) entire ink film. Fusion temperature may vary, depending on which inks 720LF Softhand is mixed into. Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric and the type of heat source used. Plastisols actually achieve the proper fusion point as soon as the innermost section of the ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.
CLEAN-UP	Environmentally friendly plastisol screen wash or mineral spirits.
STORAGE OF INK CONTAINERS	Keep inks indoor and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

720 SOFTHAND CLEAR BASE

1199LF STRETCH INK ADDITIVE

INTERNATIONAL COATINGS CO., INC.

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Voice (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

GENERAL INFORMATION

International Coatings 1199LF* Stretch Ink Additive can be easily mixed into Multipurpose, 700 Series or 1100 Series plastisols to produce increased elongation and good adhesion on Lycra, Spandex and other types of stretch fabrics. 1199LF is a 100% solids ink that contains no solvents. The printed ink has excellent laundry resistance. Dry cleaning is not recommended.

*LF (Lead Free) Contains less than .025% Lead.

RECOMMENDED FABRICS

Lycra, Spandex and other stretch fabrics. Always test print fabric before a production run for adhesion and possible dye migration.

INK APPLICATION

Mixing of the additive into the ink may be done by volume or by weight. When mixing by volume, the ratio is 2 parts ink to 1 part additive. By weight the ratio is 3 parts ink to 1 part additive. ***For opaque inks, mixing by weight is highly recommended for best results.*** Sample formula:

Product	Weight
711LF LB HP FF White	240 Grams
1199LF Stretch Additive	80 Grams
TOTAL	320 Grams

This formula will make ½ pint of opaque white stretch ink. To mix 1 pint of stretch ink, multiply the above formula by 2, for a quart, multiply by 4. Always mix the stretch additive thoroughly into the desired ink. Mixed ink has an indefinite shelf life when stored in a cool area.

SCREEN MESH AND EMULSION

80 to 125 MONOFILAMENT

ANY DIRECT OR INDIRECT LACQUER PROOF EMULSION. USE A 20 TO 50 MICRON CAPILLARY FILM FOR BEST RESULTS.

SQUEEGEE

65 to 70 Durometer: sharp or beveled edge.

DRYER TEMPERATURES

Since plastisols do not air dry, they must be fused with an appropriate heat source in order to achieve durability. The optimum time/temperature cycle will vary with the amount of ink deposited, fabric, and type of heat source used. Plastisols actually achieve the proper fusion point as soon as the innermost section of the ink film reaches the prescribed temperature. Test dryer temperatures before a production run. Wash test printed product before production run.

DRYER TEMPERATURES [con't]

Some types of Lycra and Spandex fabrics do not absorb heat as quickly as other types of fabrics. Increasing time and/or the temperature in the dryer may be needed to achieve the proper fusing temperature of the mixed ink.

MODIFYING INK

If reduction in viscosity is needed after mixing additive to ink, use 1% to 10% by volume, of 1110LF Curable Reducer. Adding too much reducer will lower opacity of ink being mixed.

CLEAN-UP

Mineral Spirits (White Spirits) or any Environmentally Friendly Plastisol Screen Wash

IMPORTANT INFORMATION

1. 1199LF Stretch Ink Additive has been tested with International Coating's inks. If this additive is mixed with another manufacturers product, it is very important that proper testing be done to insure performance and durability of the mixed ink.

2. 1199LF is not a low bleed product. Proper testing must be done before beginning production run for dye migration or bleeding. Adding additive to a low bleed ink does not guarantee bleed resistance.

3. Always test ink and fabric before any production run.

PRODUCT INFORMATION

STORAGE OF INK CONTAINERS

Keep indoors and store in a cool area. Storage recommended at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

PRODUCT PACKAGING

QUART, 1 GALLON, 5 GALLON, or 30 GALLON CONTAINERS.

PRODUCT MSDS

REFER TO MATERIAL SAFETY DATA SHEET MSDS8.

TRANSFER PRODUCTS

Add dimension and special effects with these high-quality transfer products from International Coatings™. They look great, and they have the durability to last and last.

International Coatings™ has formulated several products that can take your products to the next level. From dimensional to reflective transfers, as well as printing on nylon products, check our product offering first.

500 SERIES OPAQUE TRANSFER INKS

500 Series Opaque Transfer inks are ready-to-print for hot-split or cold-peel transfer applications. In hot-split applications, these inks give the look and feel of a direct print for dark fabrics.

500 Series inks can be used in conjunction with 300 Series puff transfer inks for multi-dimensional designs. They have excellent laundry resistance when properly used.

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International Coatings™
Creating Performance Solutions

500 OPAQUE INKS

13929 East 166th Street • Cerritos, California, USA 90702-7666 • Tel (562) 926-1010 • Fax (562) 926-9486 • www.iccink.com

FEATURES

- A ready to print opaque ink for hot split or cold peel transfer applications. HOT SPLIT: The ink gives the look and feel of a direct print for dark fabrics.
- The 500 Series ink can be used in conjunction with the 300 Series puff transfer inks for multi-dimensional designs.
- Ink has excellent laundry resistance when properly used. Dry cleaning resistance is poor. Do not iron printed surface.

500 SERIES LF* COLORS

506LF Purple	537LF Orange
513LF White	538LF Fluorescent Green
516LF Black	539LF Fluorescent Blue
522LF Primrose Yellow	546LF Scarlet
526LF Golden Yellow	562LF Light Blue
531LF Fluorescent Pink	566LF Royal Blue
532LF Fluorescent Yellow	572LF Bright Green

*LF (Lead Free) Contains less than 0.025% lead.

Application & Storage Information

RECOMMENDED FABRICS	Cotton and cotton/polyester blends. Always test print fabric before beginning a production run.
INK APPLICATION	The 500 series inks can be printed right out of the containers. If modification is necessary, use 1110LF Curable Reducer for best results.
SCREEN MESH AND EMULSION	60 to 125 t/in or 24 to 49 t/cm Monofilament Any direct or indirect lacquer proof emulsion. Use 70 to 80 micron capillary film for best results.
SQUEEGEE	65-70 Durometer: Sharp or beveled edge
GEL TEMPERATURE	Gelation Temperature: 180°F to 225°F (82°C to 107°C) It is important that the 500 series inks are only partially gelled in the dryer. Over gelation will result in poor adhesion and/or poor release from the paper. Exact gelation temperature must be determined by testing. The optimum time/temperature cycle will vary with the amount of ink deposited and the type of heat source used. Test dryer temperatures before a production run. Wash test product before production run.
CLEAN-UP	Mineral spirits or any environmentally friendly plastisol screen wash.
PRODUCT PACKAGING	Quart, 1 Gallon, 5 Gallon, or 30 Gallon Containers.
STORAGE OF INK	Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight and moist, humid air.
PRODUCT MSDS	Refer to material safety data sheet MSDS8.

TRANSFER APPLICATION

APPLICATION TEMPERATURE
375°F to 400°F (191°C to 204°C) Testing required for best results.

APPLICATION TIME:
3-7 Seconds. Testing required for best results.

APPLICATION PRESSURE:
MEDIUM (40lbs.)

IMPORTANT INFORMATION

1. Before applying the transfer, pre-heat the fabric for 3 to 4 seconds to remove any moisture. Place transfer in position and heat seal. Immediately pull the paper from the fabric for best results.
2. Poor opacity may result from excessive heat, dwell time or pressure during the application process. Insufficient heat, dwell time, or pressure may result in poor adhesion and elongation (stretch).
3. These inks are not low bleed inks. The bleed resistance may be good because of the short application time, but testing is required to determine long term bleed or dye migration resistance.

INSTA GRAPHIC SYSTEMS®
HEAT SEAL MACHINES

International Coatings™ is proud to announce that INSTA Graphic Systems®' Heat Seal Machines are now available through selected International Coatings' distributors. INSTA® is the world's leading manufacturer of state-of-the-art heat seal machines for transfer applications on fabrics and non-porous hard surfaces. INSTA® machines do the job right every time!

The ultimate in machinery for application of heat transfers and for the color copy industry, INSTA®'s heat seal equipment is backed by proven reliability, quality parts and construction, and a lifetime guarantee on its cast-in tubular heating element. It also carries a one-year guarantee on replacement parts and a 90-day guarantee on labor.

www.iccink.com
13929 East 166th Street, Cerritos, CA 90702-7666, Tel: (562) 926-1010, Fax: (562) 926-9486

QUALITY ENGINEERING

All INSTA® machines have a cast-in tubular heating element, the most reliable even heating source available. The temperature control sensor is located as close to the heating surface as possible to ensure accurate temperature sensing.

Platens are cast and heat-treated. The printing surface is tested for ultimate flatness. INSTA® coats the upper heating platen with Teflon for easy cleaning. The lower platen is covered with the finest silicone sponge rubber for superior applications.

All these features come housed in a heat-treated aluminum casting for strength and durability. The painted finish is baked enamel, which keeps the machine looking as good as the products it seals.

Quality parts and construction from the inside out – INSTA®'s machines are the ones you can depend on!

SAFETY FIRST

INSTA® manufactures ten manual and automatic (pneumatic) models available in 120-volt and 240-volt systems.

All INSTA® machines proudly carry approvals for quality and safety from agencies such as UL in the Unites States, CuL in Canada and CE in Europe. These certifications assure customers that they are purchasing machines that meet the highest standards.

INSTA® pioneered the swing-away heat platen, which prevents direct exposure to the heating element. During application, a safety latch on manually operated machines keeps the handle in place. INSTA®'s automatic models incorporate a two-hand switch operation, anti-tiedown devices, breakaway platens and disengage switches for additional safety.

Visit our website for more features of our INSTA Graphic Systems® at www.iccink.com

www.iccink.com
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Heat Seal Machines

January 1, 2007

Model 138
Digital Manual Clam Press

115/120 volt – $1225.00
230/240 volt – $1260.00
(15″ x 20″ platen)

Model 158
Digital Auto Release Clam Press

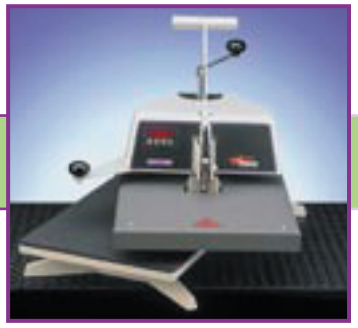
115/120 volt – $1495.00
230/240 volt – $1495.00
(15″ x 20″ platen)

Model 228
Digital Swing-Away Press

115/120 volt – $1595.00
230/240 volt – $1670.00
(15″ x 20″ platen)

Model 204
Multi-Purpose Manual Digital Swing-Away Press

115/120 volt – $1695.00
230/240 volt – $1760.00
(15″ x 20″ platen)



Model 914
Digital Automatic Cap Press

115/120 volt – $3365.00
230/240 volt – $3465.00
(15″ x 20″ platen)

Model 418
Digital Cap Press

115/120 volt – $765.00
230/240 volt – $797.00
(3.25″ x 6.75″ curved platen)

Model 907
Dual Station Shuttle Machine

115/120 volt – $3365.00
230/240 volt – $3465.00
(6″ x 6″ flat head platen)

Model 828
Digital Automatic Swing-Away Press

230/240 volt – $4650.00
(20″ x 25″ platen)

Model 718
Digital Automatic Swing-Away Press

115/120 volt – $3135.00
230/240 volt – $3175.00
(15″ x 15 platen)

Model 909
Single Station Machine

115/120 volt – $3150.00
230/240 volt – $3150.00
(6″ x 6″ flat head platen)

Model 728
Digital Automatic Swing-Away Press

115/120 volt – $3285.00
230/240 volt – $3325.00
(15″ x 20″ platen)

Model 929
Pic n' Place Machine

115/120 volt – $6300.00
230/240 volt – $6300.00
(6″ x 6″ flat head platen)

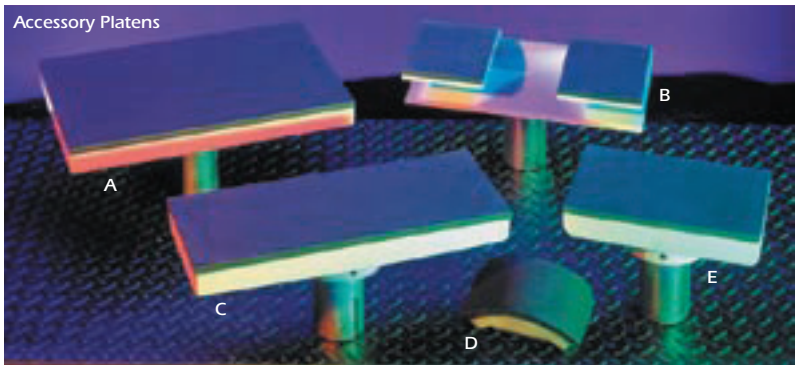
INSTA GRAPHIC SYSTEMS®
13925 E. 166th Street ▪ Cerritos, CA USA 90702-7900
Phone: (562) 404-3000 ▪ Outside CA: (800) 421-6971 ▪ International: (562) 404-2321 ▪ FAX: (562) 404-3010
E-mail: info@instagraph.com ▪ Website: www.instagraph.com

PRINTING ACCESSORIES

PART NO.		PRICE*	PART NO.		PRICE*
10200AP	TRANS PAPER (FRENCH) 12" x 12" (500 SHEETS)	$135.00	30600	PELLON (WHITE) 11.5" x 13" (100 SHEETS)	$26.00
10500AP	TRANS PAPER (HOT PL) 12" x 12" (500 SHEETS)	110.00	30605	PELLON (WHITE) 15" x 15" (100 SHEETS)	32.00
10700AP	TRANS PAPER (TUF TR) 12" x 12" (500 SHEETS)	165.00	30625	HEAT TAPE (ROLL) 7 yards, 3/8" width	10.00
10850P	FLOCK SHEETS (12" x 19") (100 SHEETS PER COLOR)	315.00	30650	COVER SHEET SILICONE (100 SHEETS)	31.50

MACHINE PARTS & ACCESSORIES

MAPG010



A. MASP002 B. MAPA005 C. MASP001 E. MASP000 D. MPSP466

PART NO.		PRICE*	PART NO.		PRICE*
MAPA005	PLATEN, DOUBLE SLEEVE (5.5" x 4.5")	$290.00	MASP009	PLATEN, LOWER ASSEMBLY (728)	$310.00
MAPG010	GREASE GUN KIT, HIGH TEMP	21.00	MASP469	PLATEN 3.25" x 6.75" (414/900)	100.00
MAPM700	MUFFLER	11.00	MASP825	PLATEN, LOWER ASSEMBLY (828)	595.00
MAPT900	TEFLON SHEET (15" x 15")	15.00	MASR023	TRANSFER ASSEMBLY RETAINER (414/900)	72.00
MAPT905	TEFLON SHEET (15" x 20")	20.00	MPPC006	GLUE SILICONE RUBBER	9.00
MAPT906	TEFLON SHEET (20" X 25")	30.00	MPPF705	FUSE F1 (T250 Ma 250U) (Package of 5)	4.25
MAPT907	TEFLON PLATEN COVER (15" x 15")	28.00	MPPL022	LUBRICANT, CYLINDER	8.00
MAPT908	TEFLON PLATEN COVER (15" x 20")	40.00	MPPL023	GREASE, MULTIPURPOSE	12.00
MAPT909	TEFLON PLATEN COVER (20" x 25")	60.00	MPPP022	PAD, SILICONE (4.5" x 6.75") BLACK	17.00
MAPT911	TEFLON GLASS CLOTH (36" X 36")	38.00	MPPP024	PAD, SILICONE (3.25" x 6.75") BLACK	15.00
MAS90124	FOOT PEDAL ACCESSORY	95.00	MPPP030	PAD SILICONE (15" x 15") BLACK	60.00
MASP006	PLATEN 6" x 6" (700/800)	165.00	MPPP031	PAD SILICONE (15" x 20") BLACK	75.00
MASP000	PLATEN 6" x 9" (700/800)	190.00	MPPP825	PAD, SILICONE (20" x 25") BLACK	150.00
MASP001	PLATEN 6" x 15" (700/800)	220.00	MPSA700	AIR LINE KIT 700 SERIES	20.00
MASP002	PLATEN 10" x 15" (700/800)	250.00	MPSP466	PLATEN, LOWER ASSEMBLY (4.5" x 6.75")	115.00
MASP008	PLATEN, LOWER ASSEMBLY (718)	270.00	MPST413	TEFLON GLASS RETAINER ASSEMBLY	21.00

For machine part orders, please visit our web site at www.instagraph.com

Interchangeable Lower Platen Sizes

	Price	Model 718	Model 728	Model 828	Model 414	Model 914
MASP006	165.00	6" x 6"	6" x 6"	6" x 6"	N/A	N/A
MASP000	190.00	6" x 9"	6" x 9"	6" x 9"	N/A	N/A
MASP001	220.00	6" x 15"	6" x 15"	6" x 15"	N/A	N/A
MASP002	250.00	10" x 15"	10" x 15"	10" x 15"	N/A	N/A
MAPA005	290.00	Double Sleeve 5" x 4.5"	Double Sleeve 5" x 4.5"	Double Sleeve 5" x 4.5"	N/A	N/A
MASP008	270.00	15" x 15"	15" x 15"	15" x 15"	N/A	N/A
MASP009	310.00	N/A	15" x 20"	15" x 20"	N/A	N/A
MASP469	100.00	N/A	N/A	N/A	3.25" x 6.75"	3.25" x 6.75"
MPSP466	115.00	N/A	N/A	N/A	4.5" x 6.75"	4.5" x 6.75"

Recommended Specification for Air Compressor (Air operated models only)

1/2 - 3/4 horsepower
10 - 12 gallon tank
(38 - 45 liter tank)
80 - 100 psi
(5.6 - 7.0 kg/cm2)

*Prices subject to change without notice.

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FOREVER™ DIGITAL TRANSFER PAPERS

International Coatings™ is proud to announce the addition of FOREVER Digital Transfer Papers to its U.S. product line.

FOREVER has been developing transfer papers for color copiers and laser printers since 1989 and is one of the few real manufacturers for transfer paper in the industry. FOREVER offers complete solutions for printing on a wide range of different materials through the use of digital transfer technology.

FOREVER offers the right transfer paper for both, silicone fixing and non-silicone fixing color copiers as well as laser and ink-jet printers to print on white/dark textiles and hard surfaces. The product excels in transfer durability and its opaque transfer paper for dark textile applications.

FOREVER's strength is in its Research & Development and its ability to develop the right products to meet current market trends.

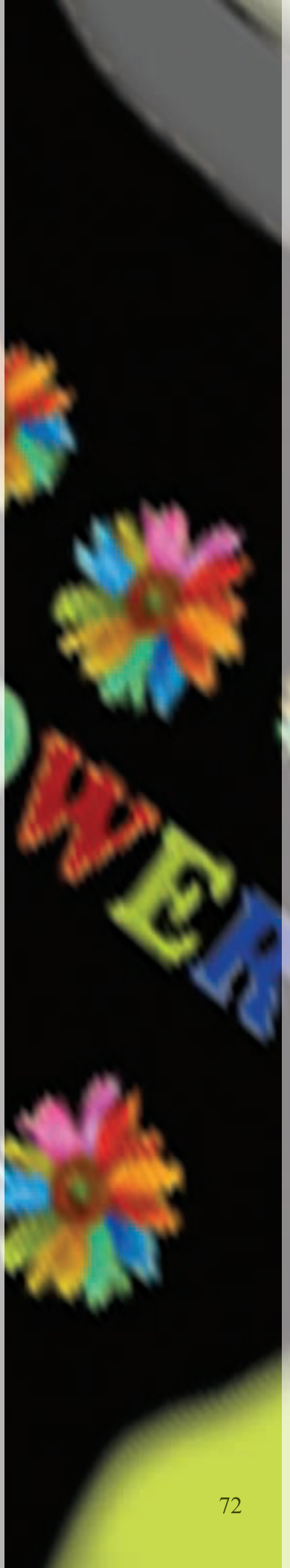
FOREVER products are distributed in over 70 countries worldwide. One of the main reasons for FOREVER's international success is "Product Consistency," which is also responsible for their excellent reputation.

Take your business to the next level by providing your customers with unique product offerings or personalized products tailored to their needs.

FOREVER makes transfer papers for the following applications:

FOREVER Solvent Dark and Solvent Dark Metallic papers are for solvent-based printers and hybrid printer/plotters and will work for transfers onto white or dark colored cotton, denim, leather, polyester, and canvas. The result is a photo-realistic image without stretch marks.

FOREVER Subli-Dark is for sublimation quality transfers onto light or dark textile surfaces, including 100% cotton, denim and leather using printers with sublimation inks.



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FOREVER Classic and Classic+ Universal transfer paper line for transfers unto white or light-colored textile surfaces. Produces an extremely durable transfer, yet retains a soft hand. Classic+ Universal is the highest quality transfer product available in the market. It will create brilliant transfers for T-shirts, caps, mouse pads, and many other textile items.

FOREVER Laser Dark is a white-opaque transfer papers designed specifically for colored or dark textiles, leather, denim and polyester applications. FOREVER Laser-Dark is also suitable for the new generation of color copiers.

FOREVER Ink Jet Dark has the same properties as FOREVER Laser Dark, but specifically formulated for ink-jet usage. Colors come out beautifully on dark backgrounds using this transfer paper and your standard ink-jet printer!

FOREVER Multi-Trans is specifically designed for printing unto hard surfaces. It adheres well to surfaces such as mugs, plates, vinyl, magnetic vinyl, acrylic glass, tiles, mirrors, CDs, and much more. Multi-Trans is also suitable for the new generation of color copiers and color laser printers with a higher fusing temperature.

FOREVER Five Star Universal is particularly well suited for light colored and loose stitched textiles such as sweatshirts and polo shirts. This transfer paper is also suitable for the new generation of color copiers and color laser printers with a higher fusing temperature.

The following pages give more information and sample applications for this wonderful product. Please also find a list of our U.S. Distributors included on the following page.

International Coatings™
Creating Performance Solutions

Forever Paper U.S. Distributors

Purchase Locally Through:

Davis International
Fairport, NY (800) 724-6272

Denco Sales Company
Concord, CA (877) 443-3626
Fresno, CA (800) 640-4151
Boise, ID (800) 338-2608
Portland, OR (800) 345-0172
Seattle, WA (800) 334-3406

Garston Screen Printing Supplies
Manchester, CT (800) 966-9626
Haverhill, MA (800) 328-7775
Rochester, NY (800) 825-8808

Nazdar
Garden Grove, CA (800) 252-7767
Medley, FL (800) 788-0554
Norcross, GA (800) 537-4606
Indianapolis, IN (800) 733-9942
Elk Grove Village, IL (800) 837-0234
Shawnee, KS (800) 647-7903
Troy, MI (800) 733-9942
St. Louis, MO (888) 785-7878
Greensboro, NC (800) 426-0290
Pennsauken, NJ (800) 257-8226
Fairfield, OH (800) 729-9942

McLogan Supply Company
Los Angeles, CA (800)625-6426
Anaheim, CA (714) 999-1194
San Diego, CA (619) 595-0270

Screen Printing Supplies Inc.
Ankeny, IA (800) 876-7774
Maple Grove, MN (800) 876-7774
Cedarburg, WI (800) 546-7774
Shawnee, KS (800) 876-7774

International Coatings Co., Inc.
Cerritos, CA (800) 423-4103
Dalton, GA (800) 423-4103

Purchase on the Internet:

International Coatings Co., Inc.

www.iccink.com
(800) 423-4103

Ryonet Corporation

www.silkscreeningsupplies.com
(800) 314-6390

To Purchase Directly Online:

You can log on to our website at

www.iccink.com/forever/index.htm

Our secure e-commerce site is open 24/7 to make it easy for you to purchase this product.

FOREVER
DIGITAL TRANSFER APPLICATIONS TECHNOLOGY

FOREVER GmbH
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E-Mail: info@forever-ots.com, Internet: www.forever-ots.com

International Coatings™
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www.iccink.com

Textile printing for the 21st century

FOREVER SOLVENT-DARK

SOLVENT-DARK & SOLVENT-DARK Metallic

WORLD NOVELTY

- Suitable for 100% cotton and mixed fibers
- Photo-realistic image quality in glossy or matte finish
- Same printing results on all colors
- Extremely elastic product
- Wash fastness and color brilliance for professional applications
- Multi-Color Flex application

FOREVER **SOLVENT-DARK** & FOREVER **SOLVENT-DARK Metallic**

These two brand new developments from FOREVER fulfill the highest expectations and open totally new fashion opportunities.

The new generation of environmentally safe Solvent Inks (Eco-Solvent, Mild-Solvent, Light-Solvent) for indoor usage and the Hybrid Plotters (Printer/Cutter) make it extremely easy for Screen Printers to print on dark garments and other substrates in the highest digital quality.

FOREVER SOLVENT-DARK

This is not a Flex Color Chart...

This is only 0.001% of what you can achieve...

CYAN 100% CYAN	MAGENTA 100% MAGENTA	YELLOW 100% YELLOW	GREEN 40% CYAN 100% YELLOW	GOLD 35% MAGENTA 100% YELLOW
SILVER 50% BLACK	RED 100% MAGENTA 95% YELLOW	SAND 5% MAGENTA 80% YELLOW	VIOLET 35% CYAN 95%MAGENTA	ROYAL BLUE 90% CYAN 85% MAGENTA
PEACH 36% MAGENTA 80% YELLOW	PURPLE 10% CYAN 85% MAGENTA 48% YELLOW	ORANGE 90% MAGENTA 80% YELLOW	MARINE 90% CYAN 60% MAGENTA 30% BLACK	LIGHT BLUE 40% CYAN 4% MAGENTA 2% YELLOW
PINK 56% MAGENTA 16% YELLOW	JADE 80% CYAN 45% YELLOW	PISTACHIO 20% CYAN 5% MAGENTA 100% YELLOW	DARK YELLOW 25% MAGENTA 100% YELLOW	BROWN 70% MAGENTA 90% YELLOW 30% SCHWARZ

WHAT YOU SEE IS WHAT YOU GET!

Matching your customers exact colors is not a problem anymore.

Printed with Solvent (Eco-Solvent) inks it is easy to achieve the desired color, which won't change after the transferring process.

RED
100% MAGENTA
100% YELLOW

RED
100% MAGENTA
60% YELLOW

RED
10% CYAN 100% MAGENTA
80% YELLOW

RED
87% MAGENTA
70% YELLOW

RED
20%CYAN 100% MAGENTA
70% YELLOW

RED
6% CYAN 98% MAGENTA
56% YELLOW

RED
100% MAGENTA
43% YELLOW 19% BLACK

RED
100% MAGENTA
100% YELLOW 20% BLACK

RED
27% CYAN 96% MAGENTA
92% YELLOW

For more information, please go to our website
www.iccink.com

FOREVER SOLVENT-DARK Metallic

Gold, Silver or any other metallic color... Here is the solution!!!

CYAN 100% CYAN	MAGENTA 100% MAGENTA	YELLOW 100% YELLOW	GREEN 40% CYAN 100% YELLOW	GOLD 35% MAGENTA 100% YELLOW
SILVER 50% BLACK	RED 100% MAGENTA 95% YELLOW	SAND 5% MAGENTA 80% YELLOW	VIOLET 35% CYAN 95%MAGENTA	ROYAL BLUE 90% CYAN 55% MAGENTA
PEACH 36% MAGENTA 80% YELLOW	PURPLE 10% CYAN 85% MAGENTA 46% YELLOW	ORANGE 5% CYAN 85% MAGENTA 70% YELLOW	MARINE 90% CYAN 60% MAGENTA 30% BLACK	LIGHT BLUE 40% CYAN 4% MAGENTA 2% YELLOW
PINK 56% MAGENTA 16% YELLOW	JADE 80% CYAN 45% YELLOW	PISTACHIO 20% CYAN 5% MAGENTA 100% YELLOW	DARK YELLOW 25% MAGENTA 100% YELLOW	BROWN 70% MAGENTA 90% YELLOW 30% SCHWARZ

METALLIC COLORS

FOREVER Solvent-Dark Metallic is a transfer material with silver coverage.
By printing on this unique material with Solvent (Eco-Solvent) inks you can achieve Gold, Silver, Bronze or any other color in a metallic finish.

HOW DOES IT WORK?

For best metallic effects reduce the color density by 25%.

SILVER	GOLD	BRONZE
		
5% BLACK	35% MAGENTA 100% YELLOW	70% MAGENTA 90% YELLOW 30% BLACK

PRINTABLES

TEXTILES

- 100% cotton
- Denim
- 95% Cotton + 5% Lycra
  (Cotton fibres with more than 5% Lycra not recommended)
- Synthetic fibers
  (require own tests)

OTHERS

- Leather
- Synthetic Leather
- Polyamid (Nylon, Perlon)
- Polyester
- Coated Paper
- Wood
- Backpack Material

T-Shirt
100% Cotton

Bag & Purse
Synthetic Leather

Bags
Backpack Material

Cosmetic Bag
Backpack Material

Boots
Leather

T-Shirt
100% Polyester

For more information, please go to our website
www.iccink.com

Jacket
Leather

Jacket
Polyamid

Bag
Backpack Material

Umbrella
Polyamid

Bag
Leather

T-Shirts
100% Polyester

Calendar
Coated Paper

Dress
100% Cotton

Sock
100% Cotton

Skirt
Denim

Board Wood

Agenda
Coated paper

APPLICATION - STEP by STEP

1 Creating the design

For best results use Photoshop, Illustrator or FreeHand for designing the image and CorelDraw for defining the cutlines.

2 Printing and Cutting (Fully automated transfer production from the roll.)

FOREVER Solvent-Dark and FOREVER Solvent-Dark Metallic can be printed on all Ink-Jet Printers with any type of Solvent or Eco-Solvent Inks.

3 Manual Application

TRANSFERRING onto the Application Tape

WEEDING of the backing paper

WEEDING of the unprinted areas

The Solvent-Dark film can also be first weeded and then transferred onto the Application Tape. Nevertheless the process shown above achieves a better result for the detailed designs lettering.

4 Heat Transfer

INSTA 728

READY!

For more information, please go to our website
www.iccink.com

NEW ATTACHMENTS

FOR INSTA 728

Heat transfers on bags, jackets or any other small articles made easy with the adjustable new attachments.

10 x 15 inches | 25,5 x 38 cm

6 x 15 inches | 15,4 x 38 cm

6 x 9 inches | 15,4 x 22,5 cm

6 x 6 inches | 15,4 x 15,4 cm

SPECIAL APPLICATIONS

DIGITAL DOMING

FOREVER Solvent-Dark and FOREVER Solvent-Dark Metallic are both extremely suitable for DOMING.

- **No air bubbles**
- **High image quality**
- **Easy handling**

NO DOMING DOMING

Doming is the process of adding a glass-like, plastic-resin bubble to a 2-D surface to create an eye-catching 3-D product.
Useable on: name badges, caps, garment labels, bottles, buttons, bags, key tags and many more.

PRINTING LABELS

Printing Labels with FOREVER's Solvent Products is another new opportunity for textile manufacturers.

NEW FOREVER Solvent-Transparent is only for white garments and doesn't require a contour cutter.

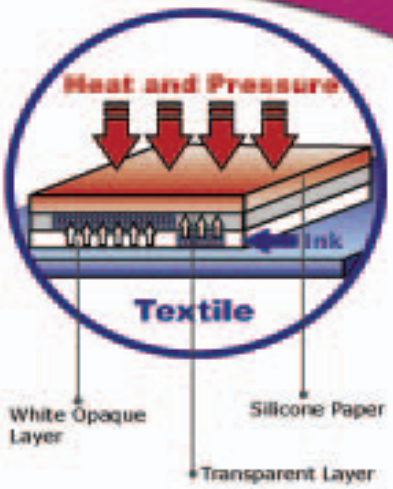
SUBLI-DARK

- Sublimation on 100% Cotton
- Photo-realistic picture quality in glossy or matte finish
- Extremely elastic material
- Wash fastness and color brilliance that meet highest expectations
- Multicolor FLEX- application in a single printing step
- Same outstanding results on all colors
- Letters and numbers transferable without using application tape

Sublimation on 100% Cotton? Yes, it is possible.

It even works on dark colors. The unique characteristic of sublimation inks, which transform from solid to gas under the influence of heat, made this revolutionary development possible.
The unique chemical composition of Subli-Dark allows the ink to diffuse through a white opaque layer and sublimate into the upper transparent layer. This means, the actual sublimation process takes place between the different FOREVER Subli-Dark layers.

The printed garment can be washed over 100 times without any deterioration in image quality. Experience and feedback from hundreds of customers attest to this fact.



APPLICATION - STEP by STEP

1 Create the design

OR

2 Print and Cut

The „Industrial Solution" for fully automated transfer manufacturing from the roll.

2 Print and Cut

The „Desktop Solution" for sheets or rolls.

3 Weed

4 Transfer

Ready!

FOREVER CLASSIC

Transfer paper for printing onto white colored textiles, mouse pads, etc.

Suitable only for color laser printers and color copiers with silicone oil fusing.

FOREVER CLASSIC + UNIVERSAL

Transfer paper for printing onto white colored textiles, mouse pads, etc.

Also suitable for the new generation of color copiers and printers with a higher fusing temperature.

FOREVER FIVE STAR UNIVERSAL

High-quality transfer paper for printing onto white colored textiles, mouse pads, etc.

Particularly well suited for loose stitched fabrics – such as sweatshirts and polo shirts.

Also suitable for the new generation of color copiers and printers with a higher fusing temperature.

FOREVER INK-JET

Transfer paper for ink-jet printers for printing onto white colored textiles, mouse pads, etc.

Sizes:
DIN A4R, DIN A3, 11 x 17 inches, 8.5 x 11 inches, special sizes upon request

Printable materials:
Textiles or other materials with textile surfaces

FOREVER DARK

White-opaque transfer paper for printing onto colored textiles, leather, denim, polyester fabrics, etc.

Also suitable for the new generation of color copiers and printers with a higher fusing temperature.

Sizes:
DIN A4R, DIN A3, 11 x 17 inches, 8.5 x 11 inches, special sizes upon request

Accessories:
Application tape

Craft ROBO Graphtec CC 100-20

TIP:
We recommend cutting out design patterns by using a plotter/cutter with register mark detection e.g. the Graphtec CE 3000-60 or the Craft ROBO Graphtec CC 100-20

For more information, please go to our website www.iccink.com

Glas / Glass

Metall / Metal

Plexiglas / Acrylic Glass

FOREVER MULTI-TRANS

Transfer paper for printing onto mugs, plates, beer steins, magnetic vinyls, wood, place mats, adhesive papers, Chromolux, tiles, mirrors, Plexiglas, metal, nylon, cigarette lighters, CDs, etc.

Also suitable for the new generation of color copiers and printers with a higher fusing temperature.

FOREVER 3-D TRANS

NEW

A further development of FOREVER Multi-Trans in which the transparent foil can be pulled from the carrier paper – for a better positioning.

Also suitable for the new generation of color copiers and printers with a higher fusing temperature.

Sizes:
DIN A4R, DIN A3, 11 x 17 inches, 8.5 x 11 inches, special sizes upon request

Accessories:

Silicone mat as a heat barrier, used to build up temperature slowly to prevent colors from bleeding.

Digital thermometer for uniform printing results, regardless of the printing area and volume of the material.

Thermo tape for adhering the transfer to the material

transfer of power

the new ultra bright transfer system

www.iccink.com

OPTILUX™
A revolution in reflectives

OPTILUX™ ULTRA REFLECTIVE INK

International Coatings™ now offers a full line of Optilux™ Ultra Reflective inks, transfers, and adhesives. Together with Viz Reflectives, International Coatings™ has developed Optilux™ 505, the most powerful and brightest reflective ink system on the market!

Optilux™ 505 can be printed through fine meshes so printers realize substantially improved yields, fine detail and definition.

The Optilux™ 950 transfer system is not only exceptionally bright but offers a remarkably soft hand and outstanding detail and definition. Both Optilux™ 505 Plastisol and 950 Transfers can be printed on a wide variety of substrates.

Along with Optilux™ Ultra Refelctive ink and transfer systems, International Coatings™ now offers the full line of VizLite® reflective tapes and promotional sheeting.

Coming next year are VizLite® technical and specification-grade reflective sheeting.

www.iccink.com
13929 East 166th Street, Cerritos, CA 90702-7666, Tel: (562) 926-1010, Fax: (562) 926-9486

Optilux™ Ultra Reflective Ink Systems

PLASTISOL SYSTEM

2 PACK

Optilux™ 505 Ultra Reflective Plastisol is an easy to print, two-part, retro-reflective ink that contains light-reflecting microspheres. When a garment printed with **Optilux™ 505** ink is exposed to a focused beam of light, such as that from a flashlight or an automobile headlight, it reflects or returns light back to the light source.

Optilux™ 505 Ultra Reflective Plastisol can be used as a unique decorative tool to increase nighttime visibility of a printed design

Optilux™ Application

To obtain the best reflective properties, **Optilux™ 505** is recommended for use on open weaved fabrics. Optilux™ can also be used with very good to excellent results on some tightly woven nylon and polyester fabrics. **Optilux™ 505** is not a low bleed product and is not recommended for use on bleeding fabrics.

Nylon and Polyester Fabrics

Print **Optilux™ 505 ink** through a 160 t/in to 230 t/in (63 t/cm to 90 t/cm) Monofilament screen. Use one flood stroke and one print stroke for best results. Two print strokes can be used for added opacity when printing through a 230-mesh t/in (90 t/cm).

On tightly woven fabrics such as shell nylon, a flash cured underbase print of International Coatings' 900 or 9000 Series nylon inks may be used to gain opacity, color and a smoother looking print. Printing **Optilux™ 505** over an underbase may diminish the reflective strength of the ink to a small degree but for some nylon or polyester fabrics, it is best to print over an underbase in order to obtain the cleanest print of the **Optilux™ 505** ink. Printing **Optilux™ 505** ink onto some tightly woven nylon or polyester materials without an underbase may leave the print looking pockmarked as the ink may not flow properly on some of these fabrics.

Always test for adhesion when printing onto any tightly woven material such as shell nylon. Water- resistant or waterproof coatings on some nylon or polyester fabric may prevent proper adhesion of **Optilux™ 505**.

On some polyester materials, bleeding or dye migration may occur. These types of fabric should be tested prior to beginning any production of finished product. Bleeding or dye migration might not occur immediately, so longer term testing of the ink film is strongly recommended when printing polyester or polyester blend fabrics.

Cotton and Cotton/Poly Blends Fabrics

Print **Optilux™ 505** ink through a 160 t/in to 230 t/in (63 t/cm to 90 t/cm) Monofilament screen. Use one flood stroke and one print stroke for best results. Two print strokes can be used for added opacity when printing through 230-mesh t/in (90 t/cm). Adding pigment to **Optilux™ 505** ink will shade the ink slightly to a desired color, but adding too much pigment will diminish the reflective properties of the ink.

Note: It is not recommended to print **Optilux™ 505** ink over an underbase print when printing on open weaved fabrics such as typical T-shirt type fabric.

For more information about **Optilux Ultra** Reflective Ink Systems
www.vizreflectives.com/optilux or **www.iccink.com/optilux**

OPTILUX™
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Optilux™ Ultra Reflective Ink Systems

Technical Information

Ink Preperation

Optilux™ 505 ink must be mixed thoroughly with Optilux™ 100 Coupler before printing in order to obtain best wash and wear durability. Optilux™ 100 Coupler is provided in 2 fluid oz. (60 ml) and 8 fluid oz. (250 ml) containers. Stir thoroughly into the **Optilux™ 505** ultra reflective ink prior to use. The recommended proportions are:

By weight: 20 grams of ink to 1 gram of Optilux™ 100 Coupler.

Pot life of mixed ink is approximately 8 to 12 hours. Do not mix more ink than is needed for the job. Any mixed ink not used within 12 hours should not be used again.

Screen Application

Use 160 t/in to 230 t/in (63 t/cm to 90 t/cm) Monofilament. Printing through a coarser mesh may reduce the reflective quality of the ink.

Use a 110 t/in to 160 t/in (43 t/cm to 63 t/cm) for an underbase prints on tightly woven fabrics.

Use any direct lacquer resistant emulsion or capillary film.

Squeegee

60-70 Durometer: Sharp Edge

Ink Cure Temperature

325°F (163°C) entire ink film. Test dryer temperatures and wash test printed product before and during a production run.

Clean-Up

Mineral Spirits or any environmentally friendly plastisol screen wash.

Packaging

Quart, 1 Gallon, or 5 Gallon Containers.

Storage of Ink Containers

Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight. Keep containers well sealed.

Product MSDS

Refer to material safety data sheet: **Optilux™ 505**.

Viewing Instructions

Hang printed garment in a dark room so that the printed portion of the design is fully visible. Stand directly back from the print, 10 feet or more, and hold a flashlight next to your head, eye level and point the light directly at the print. Light should be reflected directly back to the viewer.

Important Information

Optilux™ 505 Ultra Reflective Inks are ready for use as supplied. For best results, product should not be modified with any viscosity reducers or thickeners. Viscosity of this product is already low and any modifications can result in poor reflective quality.

Always stir **Optilux™ 505** Ultra Reflective Inks thoroughly prior to each use. The reflective microspheres used in the ink will settle in the container when ink is stored for any length of time.

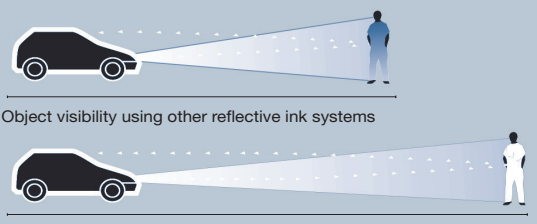
The retroreflective properties of **Optilux™ 505** Ultra Reflective Ink can be diminished by using an improper screen mesh, under-curing, by adding other inks, pigments or additives to the ink.

Always pre-test this product before using in production. Check for reflectivity, opacity, adhesion, wash durability and any other attributes that are required for your particular application.

For best long term wash durability of printed fabric, machine wash finished product in cold water, delicate cycle, and wash inside out. Do not use bleach. Do not iron on printed area of garment. Recommend line or hang dry. The reflective quality of the **Optilux™ 505** product should improve after the first washing.

***Recommendations** and statements made are based on International Coatings and Viz Reflectives research and experience. Since International Coatings and Viz Reflectives do not have any control over the conditions of use or storage of the product sold, International Coatings and Viz Reflectives cannot guarantee the results obtained through use of its' products. All products are sold and samples given without any representation of warranty, expressed or implied, of fitness for any particular purpose or otherwise, and upon condition that the buyer shall determine the suitability of the product for its own purpose. This applies also where rights of third parties are involved. It does not release the user from the obligation to test the suitability of the product for the intended purpose and application.*

Optilux™ reflective ink comparison



Object visibility using other reflective ink systems

Object visibility using **Optilux™ reflective ink systems**
*Based on a garment using full coverage

Optilux™ Ultra Reflective Ink is available as the following :

Optilux™ Ultra Max
Additional variations will be available soon, check our website for more details at www.opt-lux.com

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Vision House, Marshfield Emp. Park. Crewe, Cheshire, CW2 8UY, UK
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www.vizreflectives.com

For more information visit our website at www.opti-lux.com

Optilux™ 950 Reflective Transfer Adhesive

FILM & ADHESIVE SYSTEM

2 PACK

Optilux™ 950 is a clear plastisol based transfer adhesive formulated to be used with the Optilux™ 901 reflective sheet to produce reflective heat seal transfers. Optilux™ 901 is a reflective transfer sheet composed of wide angled retro reflective lenses temporarily bonded to a polyester substrate.

Recommended Substrates

Reflective transfers made using Optilux™ 950 can be used on cotton, cotton blends and synthetic fabrics such as polyester, and some nylon and nylon blends. It is highly recommended that the finished transfers be thoroughly tested to assure compliance to individual performance requirements.

Manufacturing Requirements

To produce reflective transfers using Optilux™ 950, the following materials and procedures are recommended:

1. Screen Optilux™ 950 Reflective Transfer Adhesive, plastisol-based adhesive, onto the **Optilux™ 901** Reflective Transfer Sheets, mirror image, to create the desired image.
2. Add Optilux™ Coupler 200 just prior to using Optilux™ 950 Reflective Transfer Adhesive. Recommended mix ratio is 1% by weight of Optilux™ Coupler 200 to the Optilux™ 950 Reflective Transfer Adhesive. Mix all the components very thoroughly before using. Pot life of mixed adhesive is approximately 8 to12 hours. Do not mix more adhesive than is needed for the job. Any mixed adhesive not used within 12 hours should not be used.
3. Adhesive yield is approximately 3,000 prints for a 4 x 5 inch (1.6 x 2.0 cm) design.
4. Use any direct or indirect lacquer proof emulsion.
5. Clean-Up Mineral Spirits or any environmentally friendly plastisol screen wash.

Screen Mesh and Emulsion

Mesh: 86 monofilament (34 threads/cm).
Squeegee: Sharp edge, 60 to 75 durometer. Print with squeegee at 45 degree angle to screen mesh. Print with screen off contact for best results.
Emulsion: Any direct or indirect lacquer emulsion or Capillary film.

Drying Printed Transfer Sheets

Printed **Optilux™ 901** reflective transfer sheets should be gelled (partially cured) at 270°F to 290°F (131°C to 142°C). Retention time in the dryer should be long enough for the transfer adhesive to completely reach the recommended gel temperatures. Test dryer temperatures and wash test printed/transferred product before and during a production run.

For more information about **Optilux™ Ultra** Reflective Ink Systems
www.vizreflectives.com/optilux or **www.iccink.com/optilux**

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Optilux™ Reflective Film & Transfer Adhesive

Technical Information

Transfer Application

Allow 24 hours after printing and partially drying the reflective transfers before beginning the application process. Completed reflective transfers should be applied within 6 months of production for best results. Transfers should be applied by heat sealing at 325°F to 350°F (163°C to 175°C), using medium pressure (40 psi), for 8 to 12 seconds. Peel cold.

Recommended Washing Instructions for Finished Garments

Allow 24 hours after application of transfers before washing. Machine wash finished product in cold water, delicate cycle, inside out. Recommend line or hang to dry. Do not use bleach. Do not iron on printed area of garment.

Storage of Optilux™ 950 Containers

Keep containers sealed when not in use. Keep indoors and store in a cool area. Recommend storage at 65°F to 90°F (18°C to 32°C). Avoid storage in direct sunlight or in extreme temperature conditions.

Optilux™ 950 Product Packaging

Available in Gallon and 5-Gallon Containers.

Reflective Transfer Application

Application Temperature:	325°F to 350°F (163°C to 175°C)
Application Time:	8 - 12 Seconds
Application Pressure:	Medium (40 psi)

PEEL COLD

Directions for Viewing Reflective Transfers

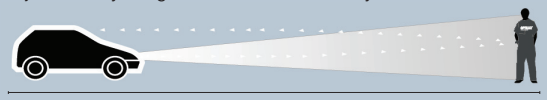
1. View applied reflective transfers in a dark room.
2. Hold a flashlight at your eye level and aim at sample.
3. Applied transfers should produce, very bright, 500 candlepower light when using the Optilux™ 901 Reflective Transfer Sheets.

Properly applied Optilux™ 901 reflective transfers maintain reflectivity for the normal life of the garment to which they are applied. Performance can vary depending upon how the product is stored, applied and used, exposure conditions, and laundering conditions. Users must test the finished transfer to determine the suitability of the product for their particular requirements.

Recommendations *and statements made are based on International Coatings and Viz Reflectives research and experience. Since International Coatings and Viz Reflectives do not have any control over the conditions of use or storage of the product sold, International Coatings and Viz Reflectives cannot guarantee the results obtained through use of its' products. All products are sold and samples given without any representation of warranty, expressed or implied, of fitness for any particular purpose or otherwise, and upon condition that the buyer shall determine the suitability of the product for its own purpose. This applies also where rights of third parties are involved. It does not release the user from the obligation to test the suitability of the product for the intended purpose and application.*

Optilux™ reflective Transfer comparison

Object visibility using other reflective transfer systems



Object visibility using **Optilux reflective transfer systems**

*Based on a garment using full coverage

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www.vizreflectives.com

For more information visit our website at www.opti-lux.com

PRINTING TIPS

The more you know about your substrate, color values and transfer products, the better your printed product will be. This is why we believe it's important to provide as much information as possible.

International Coatings™ has been in the printing business for over 50 years, and we have a panel of experts who can help you with any screen printing questions you may have.

It is our goal to be the industry leader in our field and to provide superior quality products and service.

Following are just some of the tips we have included here. These tips cover Direct Printing on Nylon Jackets, Transfer Product tips, and tips for preventing Fabric Discolorations.

Included are also some of our most popular FAQs. For more FAQ and specific printing tips, please visit our website at www.iccink.com to go to our "How-To" section.

We also feature an "Ask the Expert" section on our website, whereby you can e-mail us with more specific questions if you cannot find the information listed on our How-To portion. One of our experts will then get back to you as soon as possible.

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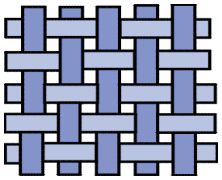
DIRECT PRINTING NYLON JACKETS

The Nylon Jacket

Types of Nylon

There are three basic weaves that are commonly used to manufacture nylon jackets or outerwear. These are Taffeta, Satin and Oxford.

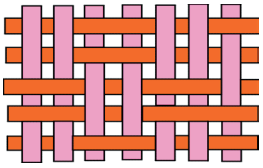
Taffeta



A plain weave type of fabric. This is the basic form of weaving. The yarns alternately pass over and under each other. This type of woven fabric is very stable because of the many iner-weavings. Taffeta nylon, because of it's finer weave, imparts an excellent balance of surface and smoothness. This provides for good ink adhesion and edge defination.

Some of the products manufactured from this type of fabric include windbreaker jackets, lined jackets, umbrellas, windsocks, light weight tote bags, etc.

Oxford

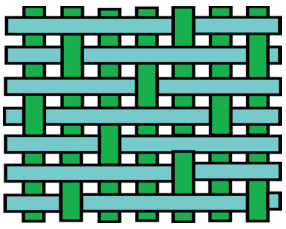


"Oxford" nylon is actually a name given to the basket weave of two threads over and two threads under. A larger diameter thread than the thread for taffeta is used. A harsher hand and rough surface are the result of this type of weave (often found in men's dress shirts).

The rougher surface requires a thicker film of ink. The surface of the fabric may also cause a sawtooth edge to the print.

A partial list of products manufactured from this fabric are athletic jackets, banners, flags, tote bags and brief cases.

Satin



The satin weave produces a very lustrous fabric. This is the fabric used for Nylon Satin Jackets. For the screen printer, satin fabric provides a very smooth surface on which to print. Opacity and edge definition is easily achieved on this fabric.

It seems as though the majority of use for this fabric is for jackets, but it is also occasionally used for banners and other nylon products.

Jacket Linings

Jackets come in four basic linings. These are shell, kasha, fleece and quilt.

Shell

The term shell means that the jacket is one layer of nylon (no lining). This is the lightweight style of jacket sometimes called a windbreaker.

Kasha

Kasha lining is also called flannel. Kasha is a type of flannel made out of polyester.

Fleece

Fleece is a man made sheerling or lambswool type of lining.

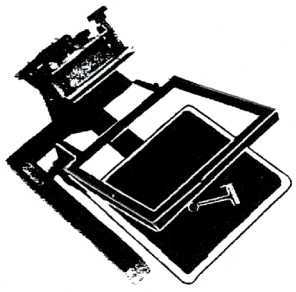
Quit

Quilt is a two layered fabric consisting of polyester batting (or fluff) with a nylon or polyester acetate layer. It is stitched in an assorted variety of patterns (i.e. squares or diamonds).

Required Printing Equipment

Using the correct equipment is fundamental for achieving the best printing results. The "best" print requires using the correct equipment, the correct ink and the best available nylon jacket.

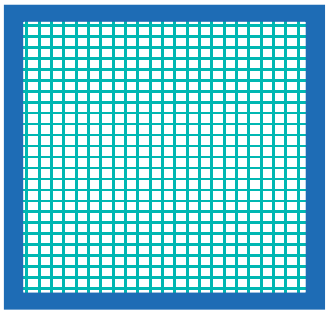
Hold-Down



The jacket hold-down is a very important piece of equipment, as it must hold the nylon fabric securely. Because most jackets printed are multiple layer garments (lined), just putting adhesive on the platen will not hold the top layer of the garment in place.

The hold-down must keep the nylon in place when flashing and printing the nylon fabric. Preferably, the hold-down should be made of steel with rubber cushioning around the inside edges to grip the nylon fabric. It is also advisable to have a rubber pad on the printing platen. The rubber pad will reduce the amount of heat retained by the platen. Since aluminum and wood expand when heated, they do not make the best hold-downs

Frames and Mesh



Retensionable metal screen frames are highly recommended. Second best would be extruded metal frames that are newly stretched (mechanically, not by hand) and glued.

Screen mesh should be monofilament polyester. For one-color prints, a range of 125 to 230 monofilament mesh is recommended. Metallic colors should be printed through 86 to 160 monofilament. Process colors require 200 to 355 monofilament. Multi-color spot printing should be printed through 160 to 205 monofilament.

Squeegee

Nylon fabric is a hard, relatively smooth surface. Squeegees **must** have a sharp, straight and level edge. Use 70 to 80 durometer or 60-90-60 to 70-90-70 triple durometer squeegees.

Ink Mixing

International Coatings 900 Series Direct Print Nylon Ink *must* be mixed with International Coatings 900LF Catalyst prior to use.

Catalyst to Ink Ratios:

By Volume = 16 parts of ink color to 1 part of 900 Catalyst.

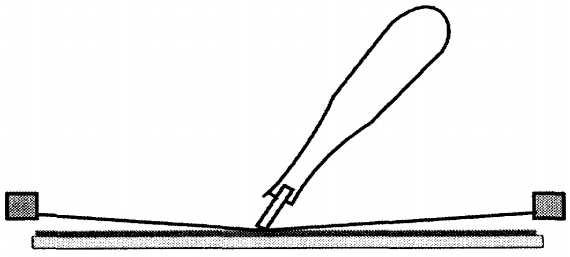
By Weight = 20 parts of ink color to 1 part of 900 Catalyst.

- **MIXING BY WEIGHT IS HIGHLY RECOMMENDED**
- **USE INK IMMEDIATELY AFTER MIXING**
- **DO NO UNDER CATALYZE THE MIXED INK**
- **POT LIFE OF MIXED INK IS 4 TO 8 HOURS**
- **OVER CATALYZATION OF INK WILL SHORTEN POT LIFE OF INK**

Printing Tips and Techniques

Set up

Off contact is the key factor in successful nylon printing. The off-contact distance should be 1/16” to 1/8” from the highest point of the nylon fabric. Excessive off contact will cause heavy ink deposit at the outer edges of the print. Double imaging or “slurring” of the image by too much off-contact is caused by the nylon fabric sliding or slipping off the back of the stencil.



Off contact is particularly important when printing nylon that is lined with either quilt or fleece. Jackets that are lined with these fabrics should have approximately 1/16” off contact. Excessive off contact requires extra squeegee pressure causing the same slurring or double imaging. The thickness of these linings will cause the garment to retain heat longer than thinner lined or unlined garments.

Pre-Heating

Because nylon fabric changes size when heated (as in flashing), pre-heating the fabric or jacket before printing is highly recommended. Pre-heating also helps to remove wrinkles from the fabric. Wrinkles or creases can often show up in the printed images, causing misprints. The fabric or jacket should be sent through the dryer or pre-heated with the flash cure unit for approximately 2 to 5 seconds, reaching a temperature of 150°F to 200°F. The flash cure unit should be set between medium and medium high heat. Flash cure units with one heat setting will need to be adjusted and tested for correct height and dwell time. Flash cure units that swing in and away automatically, at a set time, are highly recommended.

All flash cure units should be adjusted for dwell time and temperature before production begins.

Single Color Printing

The Nylon fabric must be held securely in place, even on a single color print. Correct amount of off contact and clean screen break immediately after the squeegee passes is extremely important in eliminating slurring or double imaging.

Multi-Color Printing

Both spot color and process multi-color printing success is dependent on ink film thickness. Flashing time will vary according to the ink film thickness. Nylon fabric should be printed while warm. If the fabric is printed while hot the ink may start to gel in the screen. Nylon that is left to cool for too long, generally changes size or shape slightly. The change will cause miss-registration in the print.

Curing

The heat element distance should be high enough so the fabric does not scorch. The entire ink film (both area and thickness) must reach 300°F to 325°F (149°C to 163°C) to achieve a full cure. The ink film adhesion will become stronger and more abrasion resistant over the next 48 to 72 hours.

Frequently Asked Questions

Q. -- Why do I have to use a two part ink system?

A. -- Most of the 1-part nylon inks on the market today are solvent based. These inks usually have a strong odor, are very slow flashing and sometimes require 30 seconds or more to flash between colors. Strong solvents are normally required for the clean up of these inks. Unlike some one-part nylon inks, the 900 series inks are fast flashing and are great for multicolor printing. The 900 Series inks are low odor and will clean up with most low V.O.C. plastisol screen washes.

Q. – Why is 900 Series better than a regular plastisol mixed with nylon adhesion promoter?

A. -- The 900 Series inks and 900LF Catalyst were formulated to work together to give the best possible adhesion and durability on most nylon substrates. While the 900LF Catalyst will improve the adhesion of standard plastisol inks to problem fabrics, conventional plastisols generally will produce a less durable ink film when used on nylon.

Q. – What is the recommended reducer or thinner?

A. -- International Coatings recommends mineral spirits or 1110LF reducer.

Q. – Is there a way to test the ink for complete cure?

A. -- Adhesion of the properly catalyzed 900 ink will be at its best 24 to 72 hours after heat curing. Wash testing a printed piece of fabric is the best method of testing for proper adhesion.

Q. – How long have the 900 Series Nylon Inks been on the market?

A. – The 900 Series has been on the market for 15 plus years and is the most widely used direct print nylon ink in screen printing today. The 900 Series System consists of a specifically formulated plastisol, used in conjunction with a special 900LF Catalyst, which when properly mixed with the ink will adhere to most non-waterproof nylon fabrics. Once mixed together, the ink and catalyst will stay usable for 6 to 8 hours. Once the printing is finished, any screens and squeegees used with the inks should be thoroughly cleaned with a low V.O.C. screen wash.

Q. – What is the ratio of 900LF Catalyst to 900 Series Ink?

A. -- By Weight: 20 parts 900 Series Ink to 1 part 900LF Catalyst
By Volume: 16 parts 900 Series Ink to 1 part 900LF Catalyst

It is highly recommended that a gram scale be used for quick and accurate mixing of catalyst to ink. A scale helps to speed up mixing and prevent waste by allowing smaller portions of ink to be mixed accurately. International Coatings has available an electronic gram scale perfect for nylon ink users. The V-3000 Electronic Scale, $140.00, can be used to accurately mix ½ pints to quarts of nylon ink. Mixing by volume is easy, but is not as accurate as mixing by weight and this generally leads to using too much catalyst. By volume, when using 2 oz. bottles, use ¼ bottle (½ fluid ounce) for a ½ pint of nylon ink: ½ bottle (1 fluid ounce) for pint of nylon ink and the 2 ounce bottle for a quart of nylon ink.

Q. – What type of squeegee should be used when printing nylon?

A. -- A triple durometer squeegee is recommended. This type of squeegee will allow you to lay down an even, thin ink deposit. This is important because the thinner and more even ink deposit produces a much better print. The other advantage to a thin, more even ink deposit is quicker flash times and faster ink fusion through the dryer. For dark nylon fabric use a 60-90-60-durometer squeegee. For light colored nylon fabric use a 70-90-70-durometer squeegee.

Q. – Is it necessary to catalyze all the inks when printing a multicolor nylon design?

A. -- When printing directly over the top of 900 Series Catalyzed Ink, it is not necessary to catalyze the inks used on top of another catalyzed ink. If the colors are not printed directly over the top of catalyzed ink, then each ink color used must be catalyzed.

TRANSFER PRODUCTS

HOT PEEL OR HOT SPLIT TRANSFERS

Hot peel and hot split refer to transfers where the transfer paper is removed immediately after application in the transfer press. These terms are often used interchangeably to describe these inks and/or transfers. Hot split transfers split the ink film between the paper and the fabric applied to upon the application of heat and pressure. A portion of the ink remains on the transfer paper and the majority of the ink melts into the fabric. This splitting of the ink film produces a very soft, breathable print when using standard opacity inks. Some types of transfer inks melt almost entirely into the fabric being applied to and leave very little, if any, ink on the paper. The paper and/or the ink used, along with application time, temperature and pressure of the heat seal machine, can all govern whether the ink melts entirely into the fabric or not. Hot peel transfers, where almost the entire ink film is released, may not be quite as soft and breathable as hot split transfers may. The difference in products may be too slight to notice in some applications.

The papers recommended for printing hot split or hot peel transfers range from non-coated papers to specially coated papers. Both types of papers perform well, but the specialty-coated papers are usually more forgiving to the novice transfer printer. The better release of the coated paper, as compared to a non-coated paper, allows for a little over gelation of the inks. Gelation is the term used for a partial fusing (surface dry) of the inks when printed. Over gelation of the inks, when printing transfers, can cause poor release, spotty transfers, or poor adhesion. To print transfers, the inks must be gelled between each color, not printed wet on wet as in direct printing. Gelation temperatures range from 225°F to 275°F (107°C to 135°C) depending on the ink film thickness, and the ink being used. Properly gelled ink is dry to the touch, but should break apart easily if removed from the paper. If ink is severely under gelled and stored before application, the plasticizer (an ingredient in the ink) may exude from the ink. This may be noticed as a clear uneven border around the outside of the print on the paper. If this happens, the transfer is now missing an ingredient it needs for proper adhesion and fusing. Adding too much reducer to the transfer ink may hasten this problem. The final fusing of the inks is accomplished when the transfer is applied to the garment.

NOTE:

> *Fusing is the proper term for drying plastisol inks. Curing is a generally accepted term when referring to the drying of plastisol inks, but is really what happens to most water or solvent based inks when heated or catalyzed.*

It is important to use papers designed for transfer printing, because they are usually more temperature stable than conventional bond papers. This is very important when printing hot split, multicolor transfers. Papers tend to shrink when heat is applied to them. Since hot split transfers need to be butt registered, (colors touch or almost touch each other but do not overlap) too much shrinkage leads to poor registration. Poor registration leads to noticeable gaps between colors in hot split transfers, or muddy looking colors where colors overlap. It is important to preheat transfer paper before printing multicolor transfers and to keep paper warm between colors until the job is finished. Many printers use hot boxes, which is a cabinet that is heated to 120°F to 130°F (49°C to 54°C), to store printed paper between colors and overnight.

Printing hot split or hot peel inks is done with plastisol inks that have a lower melt point than standard plastisol inks. The lower melt point allows the inks to release or split quickly from the paper and to penetrate into the garment. This gives the inks a very soft hand and excellent durability. International Coatings has developed an

additive, Quick Trans 500, which can be added to our Multipurpose, 700 Series and 1100 Series Plastisols to convert them to hot split or hot peel transfer inks. The mixed inks will work on non-coated or specially coated transfer papers. The ratio of ink to additive is 3 to 4 parts ink, to 1 part additive. For light colored fabrics, mixed Quick Trans 500 inks should be printed through a 110 to 305 monofilament screen mesh. To achieve a more opaque color, use the 500 additive with HP (High Pigment) colors printed through 60 to 86 monofilament screen mesh. Screen mesh used should be based on the detail of the design being printed and the type (T-shirt, or sweatshirt) and color of fabric being transferred to. Use a 60 to 70 durometer squeegee (hardness of squeegee blade) with a sharp edge. Ink deposit should be about 3 to 4 mils (ink film thickness after gelling) for light colored fabrics. For dark colored fabrics a 6 to 10 mil film thickness is necessary.

Transfer application time is 4 to 7 seconds with medium pressure, 40lbs on most air operated transfer machines, at 375°F to 400°F (191°C to 204°C) with either paper. Peel transfer hot. Correctly calibrated transfer machines are an important part of the transfer process. If transfers do not apply properly, do not forget to check the transfer machine, as well as the printing and transferring procedures.

OPAQUE HOT PEEL TRANSFERS

Opaque transfers should be printed using International Coatings 500 Series Opaque inks. These inks were specifically formulated for making very opaque hot peel transfers and will make a better opaque transfer than the high pigment, 500 additive combination. These inks work best on the specially coated hot peel transfer papers. They require lower gelation temperatures (180°F to 225°F or 82°C to 107°C) than a standard mixed hot peel transfer ink. Application time is 3 to 7 seconds with medium pressure, at 375°F to 400°F (191°C to 204°C). For further information on this product see International Coatings product bulletin 500 Series Opaque Transfer Inks.

PUFF HOT PEEL TRANSFERS

Use International Coatings' 300 Series Puff Transfer Inks to achieve hot peel puff transfers. 300 Series inks should be printed through a 60 to 110 monofilament screen mesh using a 60 to 75 durometer squeegee with a sharp or beveled edge. Use non-coated or specially coated hot peel transfer papers. Gelation temperatures are very important when using this ink. The gelation temperature range is 180°F to 200°F (82°C to 107°C). Over gelation of this ink may cause the ink to puff on the paper, or to not release properly. International Coatings #303 adhesive powder must be applied to the ink while it is still wet, to give the ink proper adhesion and durability on the garment. The powder adhesive is usually applied by dipping the wet transfer in a box of adhesive or by sprinkling. Shake off the excess adhesive and run through the dryer at the proper temperatures. Brush off excess powder adhesive after transfer exits dryer, using a soft brush. For multicolor puff transfers, each color of puff must be coated with the powder adhesive. Application time is 3 to 7 seconds with medium pressure, at 375°F to 400°F (191°C to 204°C). Peel transfer while hot.

NOTE:

If the transfer does not puff properly, it is usually because of over gelation.

INTERNATIONAL COATINGS TRANSFER PRODUCTS

COLD PEEL TRANSFERS

International Coatings Multipurpose, 700, 1100 or 500 Series Plastisols can be used to make cold peel transfers. The inks should be printed straight from the container on a coated, cold peel release paper. The most common cold peel paper used is known as T-75, Transfert-75 or French paper. Parchment paper can also be used especially where it might be helpful to be able to see through the paper. Parchment paper is best suited for 1-color transfers as this paper shrinks considerably when heated. When ordering paper for cold peel transfers, make sure to specify cold peel application. Inks can be printed through a 61 to 160 monofilament screen mesh. The screen mesh used depends on design detail and ink being used. Glitter inks should be printed through 16T to 25T monofilament mesh for best results. The gelation temperature for Multipurpose, 700 and 1100 Series inks is 225°F to 275°F (107°C to 135°C). The gelation temperature for the 500 Series inks used as a cold peel ink is 180°F to 225°F (82°C to 107°C). Use a 60 to 70 durometer squeegee with a sharp to rounded edge. The squeegee edge used depends on the ink being printed, detail of design and ink deposit required. Colors for cold peel transfers can be overlapped, because the ink is not split when applied. Poor adhesion and/or elongation (stretch) may result from over gelation of the inks. Adhesive powders, such as International Coatings # 304 powder adhesive, can be sprinkled on wet ink and gelled, for better adhesion to some problem fabrics such as polyester. Make sure to brush off excess adhesive from gelled transfer, to prevent adhesive spotting on dark fabrics. Quick Trans 500 additive can be added to the cold peel inks to give a little better release and a softer hand. The ratio is 6 to 8 parts ink to 1 part 500 additive. Completed transfers are applied at 350°F to 375°F (178°C to 191°C), for 10 to 15 seconds, medium pressure. Cold peel transfers, when made correctly, can be very durable. If they are not, it is usually because of over gelation or poor application procedures. Since the entire ink film is removed from the cold peel transfer when applied, they are not as breathable and soft as most hot peel hot split transfers.

FOIL TRANSFERS

There are two adhesives that are recommended for making foil transfers. 3801LF[1] is a plastisol foil adhesive and is used for making foil applications on cotton, cotton/polyester blends and 100% polyester fabrics. 3901LF is a water-base foil adhesive. It can be used on cotton, cotton/polyester blends and on some nylons, Lycra-Spandex, and leather. It is important to test adhesion and durability of these products before beginning a production run. Both of these products can also be directly printed to the garment for foil applications.

3801LF-plastisol foil adhesive should be printed through a 60 to 110 monofilament screen mesh. Use a 65 to 70 durometer squeegee with a sharp edge. The ink, when used for making foil transfers, should be printed on the dull, silver side of the foil, mirror image. Gel the ink on the foil at 250°F to 275°F (121°C to 135°C). Since this is a heat activated adhesive, gelation temperatures are not as critical as with hot peel transfers. Application temperature is 325°F to 350°F (163°C to 178°C). Try 325°F (163°C) first, for best results. Application time is 10 to 15 seconds. Wait till transfer cools before removing foil carrier sheet. When doing the foil application as a transfer only, it is suggested that the garment be preheated for 5 seconds before the transfer is applied. This will remove any moisture from the fabric. For more information on 3801LF Foil Adhesive see International Coatings' product bulletin 3801LF.

3901LF water-base foil adhesive should be printed through a 60 to 86 monofilament screen mesh coated with a water-resistant stencil or emulsion. This product can be air-dried or heat cured at 250°F (121°C). The ink, when used for making foil transfers, should be printed on the dull silver side of the foil, mirror image. 3901LF-waterbase adhesive will dry quickly in the screen if left unattended for any time. Leave screen flooded with adhesive between prints and use International Coatings 416 or 415 Retarder on warm days. Immediately clean the

[1]LF denotes lead free.

screen with water and a cleaner such as Formula 409 after use. Once the adhesive has set up, (dried) in the screen, it is very difficult to remove.

NOTE:

For greater durability of the foil after it is applied, it is recommended that the garment be hand washed or machined washed (delicate cycle) inside out and line or air-dried.

NYLON TRANSFERS

Nylon transfers are made using International Coatings 900 series inks, not catalyzed, # 210 solvent based adhesive and 290T heat resistant silicone paper. The 900 Series inks are printed through a 110 to 125 monofilament screen mesh and completely fused, 325°F to 375°F (163°C to 191°C) on the 290T paper. The ink has to be completely fused so that the ink is resistant to the solvent in the 210 adhesive. The 210 adhesive is then printed over the 900 ink. The adhesive must overlap the entire printed ink film by at least 1/32". It is the 210 adhesive that bonds the ink to the nylon, so it must cover the whole ink film, including a little outside the edges of the design. The 210 adhesive should be printed through a 61-monofilament screen mesh coated with a solvent resistant emulsion. Use a 65 to 80 durometer squeegee. Completely fuse the adhesive at the same temperatures as the ink. The colors may overlap each other as in a cold peel transfer and are dried between each color. The 290T paper is necessary for proper performance of the transfer. It has an excellent release and will not break down from the high heat needed to make nylon transfers. Use International Coatings # 275 thinner for cleaning and thinning the 210 adhesive. To wash up the 900 inks, use mineral spirits or plastisol screen wash.

NOTE:

Use proper precautions and adequate ventilation when using the 210 adhesive and 275 thinner.

When heat sealing finished transfers to nylon, it is recommended that the fabric be preheated for 5 seconds at 325°F to 375°F (163°C to 191°C) to remove surface moisture and wrinkles. Try lower application temperatures for best results (325°F to 350°F). Place transfer in position and heat seal for 10 to 15 seconds at 325°F to 375°F (163°C to 191°C). Application temperature depends on stability of nylon to heat. After heat sealing and before removing transfer, immediately rub the hot transfer with a cloth to eliminate bubbling. Be careful not to rub too hard or the transfer may move before cooling. Remove transfer when cool. An edge of adhesive may show around applied nylon transfer on darker fabrics. Suitable tests must be conducted to determine suitability of transfers for nylon applications.

FABRIC DISCOLORATION AND HOW TO PREVENT IT

Description
Fabric Discoloration, also known as “Ghosting” or “Bleaching”, results from a reaction that takes place between ingredients used in some Lo-Bleed inks and some reactive dyes in 100% cotton garments. Yellow dyes seem to be the most troublesome.

Appearance
A faint, almost invisible, “ghost” image of the printed design is sometimes visible on the back side or inside of garments that have come in contact with a white ink print.

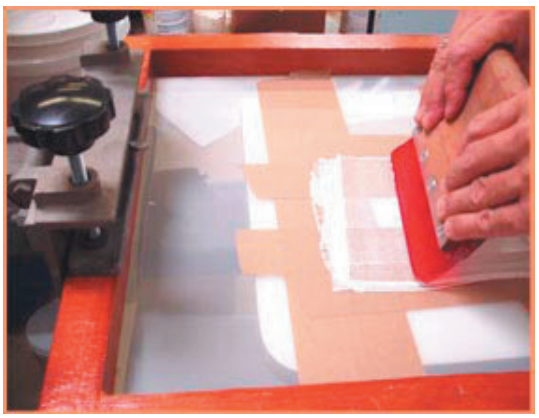
The Reaction
Three conditions need to be present for the discoloration to take place - heat, pressure and humidity. Take away any one of these three conditions and the reaction will not take place. The heat comes from the garments as they exit the dryer; pressure” from stacking these hot garments as they exit the dryer; and humidity from moisture contained in the cotton garments.

The Solution(s)
A. Use White inks formulated specifically for 100% cotton garments, or use a “non” lo-bleed white ink.
B. Check to be sure that the inks you are using do not contain any bleaching agents (such as peroxide). International Coatings inks contain no bleaching agents. Some competitive brands do.
C. Do not stack garments hot. Stagger stack – i.e., place them in several sequential stacks – and cool with a fan while stacking at the end of the dryer.

Test
To determine if your fabric is prone to ghosting, follow this simple test *prior* to production:

Equipment Needed
Heat Transfer Machine set @ 200°F (93°C)

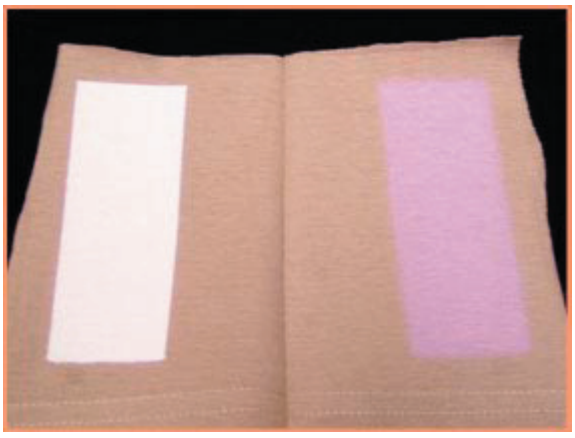
Test Procedure
1. Print the suspect fabric with the white ink you intend to use in production and fuse/cure normally.



2. Cover the printed area with another piece of the suspect fabric and mist VERY lightly wit water.

3. Place the fabric set into the Transfer Machine, set @ 200°F (93°C), with minimal pressur (5 psi)

4. Close the machine and leave for up to 4 hours. Some fabric will discolor within 5 to 1 minutes. If the material is prone to “ghosting,” you will see the “ghost” image on the ur printed fabric.



TEMPERATURE, CURE, FLASH

At what temperature do your inks cure?

The short answer is when the *entire* ink film thickness reaches its specified cure/fusion temperature. That temperature is provided on your specific ink's product bulletin. Keep in mind that thicker ink deposits (e.g., High Density) take more time to reach their specified cure/fusion temperatures. Faster fusing or low cure inks will reach their fusion or cure temperatures more quickly than conventional inks.

How long does it take for your inks to cure?

There is not single easy answer. Many factors play into how long it takes to completely cure an ink. Are you using an electric dryer or a gas dryer? Does the print have a thick ink deposit? Are you printing on T-shirts or fleece? Measuring the ink temperature on the garment, as it passes through the dryer, is the best way to determine the time it takes for your inks to cure properly. Remember that it is important that the entire ink film thickness reach the specified cure/fusion temperature.

How do I test to make sure my inks are cured?

A wash test is the best method. Take a sample print, cut it in half, and wash it 3 to 5 times in a conventional washing machine with 3 pairs of jeans or towels. Set the washer for 'Hot Wash/Cold Rinse'. Set the Dryer for 'Cotton/High' and dry for 30 minutes. Complete 3 to 5 wash cycles and compare the "washed" sample to the "unwashed" sample. If you see cracking of the ink film or ink loss, your inks are likely under-cured.

What temperature and what length of time are needed for your inks to flash cure?

Most ink will gel (flash) when the ink film reaches 220°F to 230°F (104°C to 110°C). There are 3 factors that affect the gel or flash of the ink: the temperature of the flash, the distance of the flash from the printed image, and the time the printed image is exposed to the heat. As a rule, you want to flash the ink film until t is just dry to the touch. Over-flashing inks can cause inter-coat adhesion problems and make the inks very "tacky". Check your flash cure unit to see if it has temperature and airflow controls. These can help you better control your flash cure process.

What happens if I don't cure the ink properly?

Many things, none of them good! Typical problems that arise from improperly cured inks include: ink washing off the garments, cracking of the ink film, loss of color, and bleeding of the garment color(s) into the ink film.

Why do I need to flash?

There are several reasons. Flashing enables you to print one coat of ink on top of another – e.g., a color on a white base. You also might flash an ink to keep wet ink off the back of your screens. Some inks, such as glitters, metallics and high densities, are not designed to be printed "wet-on wet". They should be "flashed" when printing in sequence.

Can I cure my inks with a flash cure unit?

We do not recommend it! Although it is true you might be able to get the ink hot enough, a flash cure unit is not a good substitute for a properly operating dryer. Using just a flash cure, you could easily overheat the film surface yet under-cure the rest of your ink film, at the same time! Not a good idea – don't do it!

How do I know if my inks are cured properly?

Your printed garments pass the wash test! (See above – "How do I test to make sure my inks are cured")

How do I measure ink temperature?

There are 3 basic and easy-to-use temperature measurement devices you can use. First, a "heat tape" can be applied to the garment before it passes through the dryer. The tape will indicate the peak temperature of the garment within the dryer. Second, an infrared "Ray-Gun" can be used to measure the surface temperature of a printed garment as it exits the dryer. All you have to do is point the gun at the garment as it comes out of the dryer. And third, a "Thermo-Probe" can be placed in the "wet" ink film or on the garment to measure real-time temperatures as it passes through the dryer. Recording those temperatures at say, five second intervals, will give you a good profile on how well your dryer is working. You may be surprised with the results.

NYLON PRINTING

Can I use a "regular" plastisol to print nylon jackets or do I need special inks?

We do not recommend using "regular" plastisol ink to print nylon jackets. Adhesion to nylon is difficult to achieve with regular inks. There may be situations where regular plastisols could work, but you likely would need to add an adhesion catalyst to the ink. Our 900 series Nylon inks are specifically formulated for nylon jacket and woven materials. Our 900 series inks have been formulated for superior adhesion and abrasion resistance.

Why is the ink coming off the jackets even though I used nylon ink?

Did you use catalyst? Did you mix it correctly? Was the ink properly cured? These are the first things you should determine. It's possible that the jackets or nylon materials you have contain a water-repellant coating on them. This coating often prevents inks from properly adhering to the material. Try cleaning an area of the nylon with Rubbing Alcohol. Then place water droplets on the area you cleaned and the area you didn't touch. If the water is absorbed more quickly into the area that you cleaned with alcohol, the jacket likely has a coating. Clean the areas of your jackets that you will be printing before you print. Change your cloth or rag frequently while cleaning; you don't want to re-deposit the coating back onto the jacket. (See HOW-TO Nylon Jacket Printing).

Can nylon inks be printed without catalyst?

Yes they can, but not on most Nylon materials. Nylon inks can be printed on cotton or cotton/poly blends without having to use a catalyst; but nylon inks tend to have a stiffer hand feel than other plastisol inks.

Can I use your catalyst with another company's ink?

We do not recommend it – although people do. We cannot assure that our catalyst is compatible with any or all other plastisol inks. We stand behind our products when they are used properly and not intermixed with other companies' ink products.

GENERAL

What do I use to clean ink from screens?

Check with your supplier or distributor for "Plastisol Screen Wash". There are several different types, including environment friendly screen wash products. Mineral spirits can be used for general clean up of squeegees and spatulas. We recommend that you consult your local city and state regulations for the proper storage and disposal of any screen wash products.

What is the shelf life of your products?

By maintaining proper storage conditions, plastisol inks can have a shelf life of 2 years or more, depending on the ink product. Two-part inks, such as nylon inks, once mixed usually have a limited shelf-life. Refer to your inks' product bulletins. After time, inks should be stirred as separation can occur.

What does flash mean?

Flash refers to when a printer heats the surface of an ink so it is dry to the touch. It also can refer to the actual flash cure unit. Flashed inks are not cured inks!

What does cure mean?

Cure occurs when the entire plastisol ink film fuses and becomes a single solid entity. For an ink to fuse fully, the entire film thickness must reach its correct cure temperature.

Can I throw away the inks I use in the trash?

No. Disposing of inks in the trash is not recommended. Check with your local and state regulatory authorities regarding the proper disposal of ink products. Be responsible! Improper disposal may result in stiff civil or criminal penalties.

Can I intermix other companies' inks if I need a special color?

It should be no problem, but we recommend that you first test print then wash test your garment before production. Although you should be fine in most cases, there may be instances of incompatibility between different branded products. Keep in mind, it is hard to go back to an ink company for technical help after you have intermixed different companies' ink products. If you do intermix inks, try to select inks that have the same cure or fusion temperature.

Why is "off-contact" printing important?

Screen-printing was designed as "off-contact" so that the ink will release from the screen once the squeegee has passed the desired image area. Without off-contact, the screen lifts up out of the ink creating an undesirable print effect.

Are plastisol inks considered hazardous and are they safe to use on children's garments?

Plastisol inks when properly handled and used are considered "non-hazardous". Lead-free plastisol inks properly applied are considered safe for children's garments. Some children's sleepwear may require "flame-retardant" inks. Always check the MSDS (Material Safety Data Sheet) for any product you are going to use.

Are your inks safe to use?

Yes, used properly according to our recommendations, our inks are considered safe. Always check the MSDS (Material Safety Data Sheet) for any product you are going to use.

How or why should I modify an ink and when?

Knowing how, why, and when to modify an ink comes with experience. Most commonly, printers modify inks with reducers to bring down viscosity when inks are too thick, or with soft hand extenders to soften the hand or feel on white or light colored garments. Be sure to follow the manufacturers' guidelines and USE a scale. Be careful! Over modifying an ink or using incompatible products will create problems.

Why are there so many different whites?

Because it is such a critical color, International Coatings and others formulate specific white inks to accommodate the wide range of garments and applications printers are likely to run into. Printers can select white inks based on such factors as bleed, opacity, flash and cure characteristics, or printability.

What is the best white to use?

Unfortunately, there is no simple answer to this question. Ask yourself what you want from your white ink. Your answer should depend on the garment, art, desired effect, press, dryer, etc. Then talk with your supplier or ink manufacturer about which white they recommend.

Why is my ink so thick and what can I do or use to thin it?

Plastisol inks can thicken over time, just sitting on the shelf. We recommend that you try stirring or mixing the ink. This will help break down the "false body" that inks can get after long periods of storage. If stirring or mixing is not sufficient, use our "Curable Reducer" at the recommended percentages.

TROUBLESHOOTING

What is the difference between "dye migration" and "pigment migration"?

"Dye Migration" occurs when *garment dyes migrate* up into the ink film, changing the colors of the printed inks. You may have seen red 50/50 t-shirts printed with white ink. That printed white ink may have turned a pinkish color over time due to "dye migration".

"Pigment Migration" occurs when *ink pigments migrate* into other inks that are printed over them. Athletic printers may print a white outline over a blue number. "Pigment migration" occurs when the blue pigment migrates into the white ink.

Why are my inks so tacky and why do they stick to the back of the next screen after flashing?

Is the flash cure on? Are you getting the ink too hot? Some inks have "after flash tack". Make sure the inks you are using are designed for flashing. Some inks that have some stretch properties have less than desirable flash characteristics. Adding a small amount (1-3%) of a puff additive can minimize the tack/stick.

Why are my inks cracking or washing out when the garments are laundered?

The most likely culprit – the inks are improperly cured!

Why are my shirts sticking together when they come out of the dryer?

How long is the "outfeed" of your dryer? When inks come out of the dryer, they are HOT. You may need to let them cool down once the shirts exit the dryer tunnel and before they are stacked. We suggest you place a fan at the tunnel exit, directed away from the dryer, to cool the shirts as they come out of the dryer.

Why are the inks sticking to the back of my screens making the print look blurry and less opaque?

Many factors might contribute to this situation, including: mesh tension too low, mesh count too low, dull squeegees, and no off contact. Make sure the ink you are using is designed for wet on wet printing. (Some aren't.)

Why do inks build up on the back of my screens and what can I do to prevent it?

First, check to be sure that the inks you are using are formulated for wet on wet printing. Here are some other tips that may help reduce build up: add some reducer or soft hand additive to the ink; engineer a job so that large coverage areas print later in the sequence; and try using finer meshes.

What is fibrillation and how do you control it?

Fibrillation occurs when yarn fibers come through the ink film after washing. Certain types of yarns are more prone to fibrillation than others. How do you control it? Make sure you properly cure the inks and consider using a slightly coarser mesh count. More ink will be deposited which will help minimize the effect.

What is "bleed" and how can it be stopped?

"Bleeding", also known as dye migration, occurs when residual dyes in a garment migrate their way into the ink film. The cause could be with the garment (not properly prepared for printing or as a result of the finishing method in manufacturing) or the inks (not properly cured). Bleeding can be controlled on most garments through proper controls on ink selection, application and curing.

Why doesn't my white ink flash with my new quartz flash?

First, check to be sure your quartz flash is on. Then check the temperature of the panel and the distance of the flash from the print. You may need to make some adjustments. Keep in mind that not all quartz flashes are created equal. Different manufacturers use different bulb wattages and energy frequencies. Some flashes are designed for multi-color spectrum and have a difficult time when it comes to whites. Other flashes are designed for whites only. Check with your ink and flash cure manufacturer.

MATERIAL SAFETY DATA SHEETS (MSDS) FOR INTERNATIONAL COATINGS™ SCREEN PRINTING PRODUCTS

The following pages give you the Material Safety Data Sheets (MSDS) for International Coatings' products. Please refer to the product number you are looking for on the next sheet.

Should your particular product MSDS not be listed here, please go to our website for the latest specs at www.iccink.com or contact our customer service for help:

From inside the U.S.: (800) 423-4103

From outside the U.S.: (562) 926-1010

Fax: (562) 926-9486

Email: icinfo@iccink.com

International Coatings™

Creating Performance Solutions

SCREEN PRINTING INKS MSDS GUIDE

The following plastisol products are covered by Material Safety Data Sheet MSDS8:

10LF	153LF	510LF	727LF	903LF	1166LF	7428LF	7710PF
12HPLF	154LF	513LF	730LF	904LF	1168LF	7503LF	7712PF
13LF	155LF	310LF	731LF	905LF	1169LF	7505LF	7714PF
16LF	156LF	313LF	732LF	906LF	1170LF	7507LF	7716PF
22LF	157LF	316LF	733LF	907LF	1172LF	7509LF	7718PF
24LF	158LF	531LF	734LF	908LF	1173LF	7511LF	7720PF
25LF	159LF	532LF	735LF	909LF	1176LF	7513LF	7722PF
26LF	160LF	537LF	736LF	910LF	1182LF	7515LF	7724PF
35LF	161LF	538LF	737LF	911LF	1184LF	7517LF	7726PF
37LF	162LF	539LF	738LF	912LF	1199LF	7519LF	7728PF
44LF	163LF	546LF	739LF	913LF	1500LF	7521LF	7802LF
46LF	164LF	562LF	740LF	914LF	3801LF	7523LF	7804LF
52LF	165LF	566LF	741LF	915LF	3805LF	7525LF	7812LF
56LF	166LF	572LF	742LF	916LF	3806LF	7527LF	7816LF
60LF	167LF	600LF	743LF	917LF	3807LF	7529LF	7820LF
62LF	168LF	606LF	745LF	920LF	3808LF	7531LF	7822LF
63LF	169LF	608LF	746LF	926LF	3809LF	7533LF	7824LF
65LF	170LF	613LF	756LF	931LF	7000LF	7535LF	9201LF
66LF	171LF	616LF	762LF	932LF	7001LF	7536LF	9202LF
68LF	199LF	622LF	764LF	933LF	7031LF	7538LF	9204LF
69LF	220LF	626LF	765LF	935LF	7032LF	7602LF	9206LF
71LF	222LF	631LF	766LF	937LF	7033LF	7604LF	9208LF
73LF	251LF	632LF	768LF	938LF	7034LF	7606LF	9210LF
76LF	252LF	633LF	769LF	939LF	7037LF	7608LF	9212LF
83LF	254LF	634LF	771LF	952LF	7201LF	7610LF	9214LF
84LF	256LF	635LF	772LF	955LF	7202LF	7612LF	9216LF
86LF	258LF	636LF	773LF	956LF	7204LF	7614LF	9218LF
89LF	260LF	637LF	774LF	957LF	7206LF	7616LF	9220LF
92LF	262LF	638LF	775LF	966LF	7208LF	7617LF	9222LF
96LF	264LF	646LF	788LF	969LF	7210LF	7618LF	9224LF
106LF	266LF	656LF	791LF	976LF	7212LF	7620LF	9226LF
108LF	268LF	666LF	792LF	1095LF	7214LF	7622LF	9228LF
109LF	270LF	668LF	793LF	1096LF	7216LF	7623LF	11201LF
111LF	272LF	672LF	794LF	1099LF	7218LF	7624LF	11202LF
112LF	274LF	688LF	796LF	1106LF	7401LF	7626LF	11204LF
131LF	276LF	706LF	797LF	1110LF	7402LF	7627LF	11206LF
133LF	278LF	710LF	820LF	1112LF	7404LF	7628LF	11208LF
135LF	310LF	711LF	842LF	1113LF	7406LF	7630LF	11210LF
137LF	313LF	712LF	843LF	1116LF	7408LF	7646LF	11212LF
138LF	316LF	713LF	844LF	1127LF	7410LF	7666LF	11214LF
140LF	326LF	714LF	845LF	1136LF	7412LF	7668LF	11216LF
141LF	331LF	715LF	846LF	1138LF	7414LF	7673LF	11218LF
142LF	346LF	716LF	847LF	1143LF	7416LF	7697LF	11220LF
143LF	366LF	717LF	848LF	1146LF	7418LF	7701PF	11222LF
144LF	372LF	718LF	849LF	1153LF	7420LF	7702PF	11224LF
150LF	388LF	720LF	851LF	1156LF	7422LF	7704PF	11226LF
151LF	500LF	723LF	901LF	1160LF	7424LF	7706PF	11228LF
152LF	506LF	724LF	902LF	1164LF	7426LF	7708PF	

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : SCREEN PRINTING INKS
MSDS CODE : MSDS8
CHEMICAL NAME : Polyvinyl Chloride Plastisol HMIS CODES: H * F R P
1 1 0 B

SECTION 1 - PRODUCT AND MANUFACTURE IDENTIFICATION

Common names : Polyvinyl Chloride Plastisol Silk Screen Inks
Manufacturer's name : International Coatings Company, Inc.
Address : 13929 East 166th Street Cerritos, CA 90702-7666
Emergency phone : (800) 255-3924 Name of preparer : A. Nucup
Business phone : (562) 926-1010 Date prepared : 03/21/05
Supersedes dated : 04/28/99 Date printed : 03/21/05

SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION

Ingredients	ACGIH (TLV)	OSHA (PEL)	CAS Number	Vapor pressure mm Hg @ Temp	Weight Percent
Vinyl Chloride Monomer (vcm)	5 ppm	I ppm	75-01-4		<0.05ppm

This product, as would any other compound made of PVC resins may possibly contain trace amounts of Vinyl Chloride Monomer (VCM) a chemical known to the State of California to cause cancer. This statement is included as required by Proposition 65 of the State of California.

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

BOILING RANGE : >420°F @5mmhg SPECIFIC GRAVITY (H20=1) :1.35 -1.65
VAPOR DENSITY (Air=1) : >1 EVAPORATION RATE (Ether=1) :<1
COATING V.O.C. : <0.1 lb/gallon VOLATILE (% by volume) : <1
SOLUBILITY IN WATER : Insoluble
APPEARANCE AND ODOR : Smooth thick liquid, faint odor.
The VOC content of this material is <0.1 lb/gallon.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT : >400^{0}F METHOD USED : C.O.C.
FLAMMABLE LIMITS IN AIR BY VOLUME - LOWER : Not Determined Upper: Not Determined
EXTINGUISHING MEDIA: Water spray, foam, carbon dioxide, dry chemical.
SPECIAL FIREFIGHTING PROCEDURES: Self contained breathing apparatus must be worn while fighting chemical fires.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Irritating toxic fumes, carbon dioxide and carbon monoxide may form at high temperatures.

SECTION V - REACTIVITY DATA

STABILITY : Stable
CONDITIONS TO AVOID : Exposure to heat and humidity.
INCOMPATIBILITY (MATERIALS TO AVOID) : Alkaline materials, strong acids and oxidizing materials.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS : Carbon monoxide, Carbon dioxide, Hydrogen chloride.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION VI- HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Inhaled: May cause irritation of the upper respiratory tract.

MATERIAL SAFETY DATA SHEET

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
May irritate and burn the eyes, may cause skin dermatitis.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: None known.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: May cause nausea, diarrhea and gastrointestinal disturbances.

HEALTH HAZARDS (ACUTE AND CHRONIC):

Acute : May cause irritation of the eyes, upper respiratory tract, mucous membranes and skin.
Chronic : May cause irritation of the eyes, upper respiratory tract, mucous membranes and skin.

CARCINOGENICITY: Yes NTP CARCINOGEN: Yes IARC MONOGRAPHS: Yes OSHA REGULATED: Yes

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Preexisting skin conditions.

EMERGENCY AND FIRST AID PROCEDURES:

Eye contact : Flush with water for 15 minutes. If irritation persists, seek medical attention.
Skin contact : Wash with soap and water.
Inhaled : Remove to fresh air.
Swallowed : If conscious induce vomiting. Consult a physician.

SECTION VII- SPILL OR LEAK AND DISPOSOL PROCEDURES

SPILL RESPONSE PROCEDURES (Include employee protection measures):
Contain spill with vermiculite or other absorbent material.

PREPARING WASTES FOR DISPOSAL (Container types, neutralization, etc.):
Transfer to disposal drum. This product is not classified as hazardous waste.

Note: Dispose of all wastes in accordance with Federal, State, Local regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

VENTILATION AND ENGINEERING CONTROLS:
Good mechanical ventilation should be provided in the workplace.

RESPIRATORY PROTECTION: None required.

EYE PROTECTION (Type): Splash proof glasses recommended.

GLOVES (Specify material): Neoprene type chemical resistant gloves recommended.

OTHER CLOTHING AND EQUIPMENT: None required.

WORK PRACTICES, HYGIENIC PRACTICES:
Avoid excessive contact with skin. Wash hands with soap and water after contact before eating, drinking or smoking.

OTHER HANDLING AND STORAGE REQUIREMENTS:
Store in cool dry place. Elevated temperatures thicken product and shorten useful life.

PROTECTIVE MEASURES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT:
Use impervious gloves for clean up.

SECTION IX - SPECIAL PRECAUTIONS

LABELING (Precautionary statements):
None
D. O. T. Label:
Not regulated.

International Coatings Co., Inc. believes to the best of its knowledge that the information provided herein, is factual and the recommendations made are accurate as of the date shown. However, no representation or warranty is made as to their completeness or accuracy.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME : 900 Catalyst
MSDS CODE : MSDS11
CHEMICAL NAME : Polyisocyanates in Plasticizer HMIS CODES: H * F R P
3 1 2 X

SECTION 1 - PRODUCT AND MANUFACTURE IDENTIFICATION

Common names : Aromatic Polyisocyanates
Manufacturer's name : International Coatings Company, Inc.
Address : 13929 East 166th Street Cerritos, CA 90702-7666
Emergency phone : (800) 255-3924 Name of preparer : J.R. Murthy
Business phone : (562) 926-1010 Date prepared : 04/28/99
Supersedes dated : 04/28/99 Date printed : 06/11/99

SECTION II - HAZARDOUS INGREDIENTS / SARA III INFORMATION

Ingredients	ACGIH (TLV)	OSHA (PEL)	CAS Number	Vapor pressure mm Hg @ Temp	Weight Percent
Dibutyl Phthalate	5 mg/m3 (TWA)	5 mg/m3 (TWA)	5 mg/m3 (TWA)		>60%
Toluene Diisocyanate HomoPolymer	Not Established	Not Established	Not Established		>20%
Toluene Diisocyanate Residual Monomer	0.005 ppm (TWA)	0.005 ppm (TWA)	0.005 ppm (TWA)		<1%

Warning: Detectable amounts of one or more chemical(s) known to the State of California to cause cancer and/or birth defects or other reproductive harm, may be present in this product. This statement is made as required by Proposition 65.

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

BOILING RANGE : Approximately 384^{0}F (195^{0}C) SPECIFIC GRAVITY (H20=1) : 1.14 @ 68^{0}F
VAPOR DENSITY (Air=1) : Heavier than air EVAPORATION RATE (Ether=1) : Less than 1
COATING V.O.C. : Not determined VOLATILE (% by volume) : Not Applicable
SOLUBILITY IN WATER : Insoluble
APPEARANCE AND ODOR : Colorless to yellow liquid with weak aromatic odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >200^{0}F METHOD USED: PM CC
FLAMMABLE LIMITS IN AIR BY VOLUME - Lower: Not Determined Upper: Not Determined
EXTINGUISHING MEDIA: Water spray, Foam, Carbon dioxide, Dry chemical
SPECIAL FIREFIGHTING PROCEDURES: Firefighter should wear self-contained breathing apparatus and appropriate protective equipment.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when exposed to extreme heat or burst when contaminated with water (CO2 evolved)

SECTION V - REACTIVITY DATA

STABILITY : Stable
CONDITIONS TO AVOID : By high heat and fire: CO2, CO, Oxides of nitrogen, HCN, TDI vapors and mist.
INCOMPATIBILITY (MATERIALS TO AVOID) : Alkaline materials, strong acids and oxidizing materials.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS : Excessive heating can release isocyanate vapors, HCN, mist, CO, or CO2.
HAZARDOUS POLYMERIZATION: Although stable under normal conditions, high heat or contact with moisture or other materials which react with isocyanates may cause polymerization.

SECTION VI- HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Irritation of the upper respiratory tract and mucous membranes.

MATERIAL SAFETY DATA SHEET

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MSDS CODE : MSDS11
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Toluene Diisocyanate Residual Monomer	0.005 ppm (TWA)	0.005 ppm (TWA)	0.005 ppm (TWA)		<1%

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COATING V.O.C. : Not determined VOLATILE (% by volume) : Not Applicable
SOLUBILITY IN WATER : Insoluble
APPEARANCE AND ODOR : Colorless to yellow liquid with weak aromatic odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: >200^{0}F METHOD USED: PM CC
FLAMMABLE LIMITS IN AIR BY VOLUME - Lower: Not Determined Upper: Not Determined
EXTINGUISHING MEDIA: Water spray, Foam, Carbon dioxide, Dry chemical
SPECIAL FIREFIGHTING PROCEDURES: Firefighter should wear self-contained breathing apparatus and appropriate protective equipment.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers may explode when exposed to extreme heat or burst when contaminated with water (CO2 evolved)

SECTION V - REACTIVITY DATA

STABILITY : Stable
CONDITIONS TO AVOID : By high heat and fire: CO2, CO, Oxides of nitrogen, HCN, TDI vapors and mist.
INCOMPATIBILITY (MATERIALS TO AVOID) : Alkaline materials, strong acids and oxidizing materials.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS : Excessive heating can release isocyanate vapors, HCN, mist, CO, or CO2.
HAZARDOUS POLYMERIZATION: Although stable under normal conditions, high heat or contact with moisture or other materials which react with isocyanates may cause polymerization.

SECTION VI- HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE: Irritation of the upper respiratory tract and mucous membranes.

Code Definition	
H: Health	3
F: Flammable	1
R: Reactivity	2
P: Personal Protection	X
Hazard Index	
4: Severe Hazard	
3: Serious Hazard	
2: Moderate Hazardous	
1: Slight Hazard	
0: Minimal Hazard	
X: Please see section VIII	

International Coatings Co., Inc. believes to the best of its' knowledge, that the information provided herein, is factual and the recommendations made are accurate as of the date shown. However, no representation or warranty is made as to their completeness or accuracy.

**** HIGHWAY OR RAILWAY SPILLS ****

CALL CHEM-TEL INC.

(800) 255-3924 or (813) 977-0626 (outside U.S.)