

This system was formulated specifically to help our customers reduce operational costs by requiring less energy to cure this product. Inks that were previously cured on standard power levels on flatbeds and in-line presses can now cure our ink on ½ power or standby settings. Companies faced with high electrical bills will now enjoy a significant cost reduction through the use of our Low Energy Series. This also applies to printers with LED capabilities. LE will cure at 50 feet per minute using 395 nM/8 watt or greater unit.

## Performance Properties

- Durable, non-block finish for double-sided prints
- Flexible for multi-layer applications/die-cutting
- Good water resistance
- Low tack finish for easy handling
- No additives required for Coroplast®
- Outstanding adhesion to a wide variety of substrates
- Rapid cure rates, ideal for multi-color presses

## Recommended Substrates

- ABS
- Anodized Aluminum
- Board Stock
- Coated paper
- Expanded Foam PVC (Sintra®, Celtec®)
- Fluted Polyolefin's
- Many Coated Metals
- Polycarbonate (Adhesive not Recommended)
- Polyethylene Sheet
- Polystyrene
- Rigid Vinyl

## Curing/Processing Guidelines

Ink will cure well when printed through 355(140cm) plain weave polyester mesh or finer. LE's optimal cure window of 76 mJ/440mW is generally achieved with one 200 watt per inch mercury vapor lamp at a belt speed of 100 - 120 feet per minute or run ½ power mode. The product will also cure through an 8watt/395 nM LED lamp at a belt speed of 50 feet per minute. This should provide thorough cure of the product. Cure speeds may vary as thicker material and dark surface colors require more energy. Adhesion should be a minimum of 95% from curing unit with final adhesion developing within six hours of initial polymerization. Coarser fabrics can be utilized; however, cure parameters may need to be adjusted for increased ink film. If a loss of gloss or adhesion due to insufficient cure is noticed, the use of 5 – 10% LE Mixing/Overprint Clear will increase light penetration and improve cure.

## Light Fastness

At full strength and cured properly, LE colors are formulated to withstand up to three years of exterior exposure. Factors that will alter the outdoor durability of the ink include but are not limited to: substrate grade/age, poor cure of the ink film, formulas, directional positioning, ink film deposit, exposure to excessive abrasives and air pollutants. Product may chalk after one year of direct exposure.

Care should be taken when reducing the mass tone\* colors with clear or tinting white as this could negatively affect the exterior durability of the color. Colors that should not be used for outdoor applications are: CMS 164 BS Red, CMS 114 Orange, 180 Warm Red and 131 Brilliant

Orange. Automotive grade color alternative recommendations are available by calling our Technical Services Department. \*Mass tone: the full product color without dilution.

Polymeric US uses automotive grade pigments (with the exception of the colors listed in the second paragraph). Some resin systems may chalk after a given time period and require a clear for extended outdoor durability.

## ROLLER COATING

- 20047 SP XR RC Universal Gloss Overprint Clear

## SCREEN

- 11402 SP XR Solarshield Overprint Clear

## Printing

Mix well prior to use. While supplied in press ready condition, LE may be reduced up to 10% with #1004 Thinner. Care should be taken to print the ink at optimal temperature 70 - 90° F (21 - 27° C). Cool ink will have heavier viscosity and will not flow properly. Hot ink will be lower in viscosity resulting in poor definition and decreased opacity.

## Coverage

3,200 to 3,600 square feet per gallon based on ink deposit .40 - .60 mil dependent on color and printing conditions.

## Storage

Care should be taken to store ink in tightly closed containers located in a cool (60-80°F/15-27°C) dark place. With suitable conditions, unopened CYMK in is expected to have a shelf life of approximately twelve (12) months from date of manufacturer.

## Metallic's

Use the Metallic Mixing Clear to prepare metallic ink as its increased viscosity helps insure a good particle suspension.

## Recommended mixing ratios, by weight are:

- 28% gold paste
- 12% silver paste

For optimum coverage and opacity, 280-305 (110 – 120cm) plain weave mesh. Use Solar Shield Clear for extended weather ability and to improve the non-tarnishing properties of the product.

## Additives

- 1004 Thinner - Use up to 10% as needed
- 13973 Cling Modifier at 3% as needed
- 1534 Adhesion Promoter up to 3% as needed
- 11939 Adhesion Promoter, 3% as needed
- 2980 Catalyst, 3% as needed (will gel in 4 hours)

### Precautions

Read the safety data sheet prior to processing. It contains instructions for precautions to be taken when handling inks. If ink comes in contact with skin wipe off with a clean, dry cloth (do not use solvent). Wash and rinse the affected areas with soap and water.

### Process Printing

For superior halftone reproduction, halftones are available in a range of density levels. Additional control of density may be achieved with use of LE HT Base. For best results, use 390 (140cm) or finer and a smooth, thin stencil coating should be utilized with process printing.

	Press Ready	High Density	Backlit Density
LE Halftone Yellow	0.90	1.10	1.35
LE Halftone Magenta	1.40	1.75	2.05
LE Halftone Cyan	1.40	1.80	2.20
LE Halftone Black	1.60	2.00	2.25

### Color Availability

LE is available in twenty opaque standard colors. Custom matches, metallic, fluorescent and transparent colors are obtainable upon request.

LE-101 Primrose Yellow	LE-210 Ultra Blue
LE-111 Lemon Yellow	LE-220 Emerald Green
LE-123 Medium Yellow	LE-225 Forest Green
LE-131 Brilliant Orange	LE-226 Lime Green
LE-135 Vivid Orange	LE-235 Teal
LE-141 Fire Red	LE-240 Purple
LE-151 Scarlet Red	LE-260 Brown
LE-155 Rubine Red	LE-301 Opaque Black
LE-160 Rhodamine Red	LE-311 Opaque White
LE-180 Warm Red	LE-312 Jet Black
LE-190 Process Blue	LE-026 Brilliant White
LE-200 Peacock Blue	LE Mixing/Overprint Clear
LE-205 Reflex Blue	LE Metallic Mixing Clear

### Pantone Matching System® Colors

The nine PANTONE® approved Color Matching System (CMS) shades are used to simulate the PANTONE® Color Specifier colors. Formulas were designed for maximum opacity and are available in book or Imaging Color source Software formats

LE-064 CMS GS Yellow	LE-066 CMS RS Yellow
LE-114 CMS Orange	LE-121 CMS YS Red
LE-164 CMS BS Red	LE-165 CMS Magenta
LE-127 CMS Violet	LE-230 CMS Blue
LE-325 CMS Green	LE Tinting White
LE Shading Black	LE Mixing/Overprint Clear

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We strongly recommend testing complete construction as per shop conditions prior to full production. MIX WELL BEFORE USE. Follow the directions on the package, ask for the safety data sheets and always follow the directions contained therein.

**Important** – Only the correct use of the product will allow satisfactory results. For this reason, closely related to the product supplied, Polymeric must decline all direct and indirect responsibility for the proper or improper use of the product. Make certain that product is right for the desired use, work according to the instructions given in our technical data sheets. Before use contact our Technical Service in case of doubt.

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