



# POLYSCREEN TP

## Multipurpose Epoxy Ink for a Variety of Demanding Substrates

### Features

- **Exceptional Resistance to Heat, Chemicals, and Other Industrial Products**
- **Choice of High Gloss or Matte Finish**
- **Excellent Adhesion Range**
- **Resistant to Mirror Silvering Process**
- **Recommended for Pad Printing**
- **May be Air Dried or Force Dried**

### Thinning

Stir well before every use. Polyscreen should be thinned 5% to 10% with TP-TH Thinner. For fast print speeds, use TP-FTH.

### Mesh

Polyscreen prints well through 175 to 305 (68 to 120/cm) monofilament polyester fabrics.

### Stencils

Stencil materials must be solvent resistant. Solvent-adhered stencil films should not be used with Polyscreen.

### Coverage

Standard colors should yield 1100 to 1500 square feet/gallon (26 to 35 m<sup>2</sup>/liter) when thinned 10% and printed through 280 (110/cm) monofilament polyester fabrics.

### Mixing

Polyscreen inks are supplied in two parts (base and TP-GC Gloss Catalyst or TP-MC Matte Catalyst), packed separately. Before printing, estimate the amount of ink required for use during an 8 to 10 hour period. Mix ink and catalyst thoroughly before adding any thinners. Thoroughly mix the ink and catalyst together in the following ratios:

|                               |               |
|-------------------------------|---------------|
| Polyscreen Inks               | 80% by weight |
| Polyscreen Catalyst           | 20% by weight |
| Polyscreen Mixing Clear TP-MX | 75% by weight |
| Polyscreen Catalyst           | 25% by weight |

Polyscreen TP-MC Matte Catalyst is available to achieve finishes ranging from satin to matte by varying the TP-GC (Gloss Catalyst) and TP-MC (Matte Catalyst) ratios from:

|            |                |                            |
|------------|----------------|----------------------------|
| 100%       | TP-GC          | Yields a Gloss Finish      |
| 80%<br>20% | TP-GC<br>TP-MC | Yields a Semi-Gloss Finish |
| 50%<br>50% | TP-GC<br>TP-MC | Yields a Satin Finish      |
| 100%       | TP-MC          | Yields a Matte Finish      |

Catalyzed ink should be consumed within 8 to 10 hours of mixing under most conditions. Excess inks should be disposed of properly.

### Drying

Polyscreen dries by solvent evaporation combined with a chemical reaction between the base and catalyst. Air drying times can be as fast as half an hour using TP-FTH Fast Thinner or as slow as five hours using TP-TH Thinner depending on ink film deposit. At room temperature, full chemical resistance and adhesion are not fully developed until about four days after printing.

Adhesion will be improved and drying time reduced considerably if Polyscreen is dried at elevated temperatures. Since drying times may vary considerably depending on conditions, the following tables should be used only as a guide:

#### Air Dry

**Thinned With:**  
TP-FTH Fast Thinner  
TP-TH Thinner

**Air Dry Time:**  
1/2 to 1 hour  
5 hours

#### Convection Oven

**Temperature:**  
300°F (150°C)  
250°F (120°C)  
175°F (80°C)

**Dry Time:**  
5 to 8 minutes  
10 to 15 minutes  
20 to 30 minutes

### Wash Up

Wash up on press with press washes and after the production run with ink degradants.



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#### Chemical and Heat Resistance

Once Polyscreen inks are fully cured, they possess exceptional resistance to most common chemicals such as acids, alkalis, as well as solvents, grease, cosmetics, detergents, and many household products. Because of their excellent heat resistance, Polyscreen inks are suitable for many laminating applications. Two-part epoxies are not recommended on products being subjected to dishwashing cycles.

#### Adhesion

Polyscreen inks possess excellent adhesion over a wide range of difficult metal, ceramic, and plastic surfaces including the following: Aluminum, copper, brass, tin, steel, and most of their alloys. Ceramics, glass, enamel, Formica, flame treated polyethylene, and polypropylene, and certain grades of polyester films.

Polyscreen also has excellent adhesion to most baked enamel surfaces and typically overcomes the ink repellent effects of silicones and waxes often found in baked enamel surfaces.

#### Pre-Production Test

It is strongly recommended that all substrates be tested before use as supposedly similar substrates can vary between manufacturers and even between different batches from the same manufacturer. Certain plastics may be impregnated with lubricants which, like plasticizer migration, may impair adhesion and block resistance even a considerable period after printing. Other plastics can become brittle or caused to curl after printing.

END-USER MUST DETERMINE SUITABILITY OF THIS PRODUCT FOR THE INTENDED USE PRIOR TO PRODUCTION.

#### Outdoor Use

Polyscreen inks are not recommended for use in applications that involve prolonged outdoor exposure.

#### Color Availability

The Polyscreen color range includes nine base Seritone Matching System (SMS) colors and the four color process Halftone color, as well as Black, White, and Mixing Clear.

#### The Seritone Matching System

The Seritone Matching System has been designed to enable printers to readily match PANTONE®\* and most other colors in-house. The system consists of nine SMS base colors, each of which has been selected for its cleanliness of tone and suitability for intermixing. Using the SMS base colors plus Shading Black, Tinting White, and Mixing Clear, almost any color can be produced.

#### Special Matches

Special colors can be supplied against prints, wet ink, PANTONE®\* numbers, or other Fujifilm Sericol standard colors.

#### Line Colors

|        |               |
|--------|---------------|
| TP-111 | Lemon Yellow  |
| TP-123 | Medium Yellow |
| TP-141 | Fire Red      |
| TP-155 | Rubine Red    |
| TP-180 | Warm Red      |
| TP-190 | Process Blue  |
| TP-205 | Reflex Blue   |
| TP-210 | Ultra Blue    |
| TP-221 | Emerald Green |

#### Seritone Colors

|        |                             |
|--------|-----------------------------|
| TP-064 | SMS Yellow GS (Green Shade) |
| TP-066 | SMS Yellow RS (Red Shade)   |
| TP-114 | SMS Orange                  |
| TP-121 | SMS Red YS (Yellow Shade)   |
| TP-127 | SMS Violet                  |
| TP-164 | SMS Red BS (Blue Shade)     |
| TP-165 | SMS Magenta                 |
| TP-230 | SMS Blue                    |
| TP-325 | SMS Green                   |
| TP-MX  | Mixing Clear                |

#### Standard Colors

|        |                    |
|--------|--------------------|
| TP-301 | Opaque Black       |
| TP-SB  | Shading Black      |
| TP-311 | Opaque White       |
| TP-TW  | Tinting White      |
| TP-312 | Super Opaque White |

\*Pantone, Inc's check-standard trademark for reproduction and color reproduction.



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##### Halftone Colors

|        |                        |
|--------|------------------------|
| TP-HTY | Halftone Yellow        |
| TP-HTR | Halftone Red           |
| TP-HTB | Halftone Blue          |
| TP-HTK | Halftone Black         |
| TP-HTX | Halftone Extender Base |

##### Thinner/Catalyst/Retarder

|        |                |
|--------|----------------|
| TP-TH  | Thinner        |
| TP-FTH | Fast Thinner   |
| TP-GC  | Gloss Catalyst |
| TP-MC  | Matte Catalyst |
| TP-RT  | Retarder       |

#### Storage

Containers should be tightly closed immediately after use. At the end of long printing runs, surplus ink from the screen should be disposed. Refer to Material Safety Data Sheet (MSDS) for materials and conditions to be avoided.

In the interest of maximum shelf life, storage temperatures should be between 50°F (10°C) and 77°F (25°C). When stored under these conditions the maximum shelf life is shown by the use by dates, which are clearly marked on all ink containers.

#### Safety and Handling

Refer to MSDS for safety, handling, and waste disposal information.

The information and recommendations contained in this Technical Data Sheet, as well as technical advice otherwise given by representatives of our Company, whether verbally or in writing, are based on our present knowledge and believed to be accurate. However, no guarantee regarding their accuracy is given as we cannot cover or anticipate every possible application of our products and because manufacturing methods, printing stocks and other materials vary. For the same reason, our products are sold without warranty and on condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvement might make some of the information contained in this Technical Data Sheet out of date and users are requested to ensure that they follow current recommendations.

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