

# 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

## Substrate Application

Aluminum and Steel

Brass and Copper

Many other Coated and Uncoated Metals

Baked Enamel Metal Coatings

Glass (caution in dishwasher)

Melamines (“Formica”)

Ceramics (caution in dishwasher)

Flame Treated Polyethylene and Polypropylene

Many Plastics

**SERICOL**  
More than ink...Solutions.™

# POLYSCREEN TP

Multipurpose Epoxy Ink for a Variety of Demanding Substrates

## 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. Dirasol 911, SuperCoat 915, and SuperCoat 916 dual cure, or, Dirasol 132 one pot direct emulsions are recommended to give the highest print quality and stencil durability. 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%	TP-GC	Yields a Semi-Gloss Finish
20%	TP-MC	
50%	TP-GC	Yields a Satin Finish
50%	TP-MC	
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:	Air Dry Time:
TP-FTH Fast Thinner	1/2 to 1 hour
TP-TH Thinner	5 hours

### Convection Oven

Temperature:	Dry Time:
300°F (150°C)	5 to 8 minutes
250°F (120°C)	10 to 15 minutes
175°F (80°C)	20 to 30 minutes

## Wash Up

Wash up on press with Xtend™ press washes and after the production run with Xtend™ ink degradents.

## 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.

**SERICOL**  
More than ink...Solutions.™

# POLYSCREEN TP

Multipurpose Epoxy Ink for a Variety of Demanding Substrates

## 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 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	Matte Opaque White

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

**SERICOL**  
More than ink...Solutions.™

# POLYSCREEN TP

Multipurpose Epoxy Ink for a Variety of Demanding Substrates

## 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

TP-TH	Thinner
TP-FTH	Fast Thinner
TP-GC	Gloss Catalyst
TP-MC	Matte Catalyst

## 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.

Sericol, Inc.  
1101 W. Cambridge Drive  
P.O. Box 2914  
Kansas City, KS 66110 USA  
**1-800-255-4562**/(913) 342-4060 Fax: (913) 342-4752  
Last Revised: October 5, 2001

**SERICOL**  
More than ink...Solutions.™