

Speciality Screen

INKS

**Metal, Glass Decoration
Industrial Application**

POLYSCREEN PI

High gloss ink for a wide range of metals, glass, ceramics, plastics & stoved enamel substrates

Features

- Wide adhesion range
- Solvent based
- High gloss finish
- Good opacity
- Excellent resistance to heat
- Excellent resistance to chemicals such as acids, alkali, solvents, grease, cosmetics, detergents and household products.
- Low viscosity rheology
- Suitable for machine and manual printing by screen
- Suitable for pad printing
- Two pack ink

Substrate

Wide range of substrates such as: aluminium, brass, steel & most of their alloys, ceramics, vitreous & stoved enamel surfaces, glass, pre-treated polyethylene and polypropylene and other plastics.

**TEST INKS ON SUBSTRATES
BEFORE PRODUCTION RUN**

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Thinning

Maximum of 15% by weight of ink used. The recommended thinners are:

SS-551- Reducer and cleaner

SS-574- Slow reducer

Note: The slow reducer will increase the drying time of print, whilst the reducer will not change the drying time of the print.

Mesh:

Print Polyscreen PI inks through 90/cm to 120/cm, monofilament polyester fabric, depending on the application.

Stencils:

Stencils can best be prepared with Sericol's stencil making products

- **Xtend Prep 101** for abrasion of screen
- **Xtend Prep 102** for degreasing of screen

Emulsions Dirasol 902 or Dirasol 915

Drying:

Air dry: 30 minutes to 3 hours. The drying time is dependent on the reducer used. Do not stack prints immediately. Allow sufficient time for through cure.

Convection Oven Stoving: 150 deg.C for 5-8 minutes or 120 deg.C for 10-15 minutes or 80 deg.C for 25-30 minutes.

Polyscreen PI dries by a combination of solvent evaporation and a chemical reaction between the base and catalyst. Air drying times can be as fast as half an hour using SS-551 reducer or as slow as 3 hours when using SS-574 slow reducer. At room temperature, full chemical resistance and adhesion are not developed until 4 days after printing.

Catalyst mixing:

Polyscreen PI inks are supplied in two parts - ink and catalyst. Before printing, estimate the amount of ink required for a day's work and thoroughly mix the ink and catalyst together in the following ratio:

Polyscreen inks: 5 parts by weight

Polyscreen catalyst: 1 part by weight

Polyscreen extender base: 3 parts by weight

Polyscreen catalyst: 1 part by weight

Coverage:

Polyscreen PI inks should give coverage of 20 to 25 sq.m./ kg, when printed through a 120/cm mesh.

Wash-Up:

Wash up screens with SS-639 Universal Screen Wash. This will ensure long life of stencils made with Dirasol emulsions.

Pre-Production Test:

End user must determine suitability of this product for the intended use prior to production.

Always test for adhesion and other properties before each production run because there can often be significant differences between substrates from different manufacturers and even between different batches.

Adhesion:

Polyscreen PI inks possess excellent adhesion over a wide range of difficult metal, ceramic and plastic surfaces including: aluminium, copper brass, tinplate, steel and most of their alloys, ceramic, glass, vitreous enamel, phenolics (Bakelite), urea/melamines (Formica), resin impregnated papers for laminating, acrylics, flame treated polyethylene and polypropylene, nylon and certain grades of polyester films.

Polyscreen PI has excellent adhesion to most stoved enamel surfaces and generally overcomes the ink repellent effects of silicones and waxes often found in stoved enamels. In case of difficulty adhesion may often be enhanced by wiping the enamel surface with good quality white spirit, SS-643 Tursub or Propanol.

Storage:

- Keep inks in a cool place, away from direct sunlight.
- Keep lids tightly closed when not in use.
- Any unused ink should not be returned to the can, must be stored separately
- Shelf life is two years from the date of manufacturing.

Stir well before every use.

Application:

The Polyscreen PI inks are intended for screen printing or pad printing for metal, glass decoration in industrial application.

Note: Polyscreen PI inks are not recommended for use in applications where prolonged outdoor exposure is a possibility

Colour Range

The Polyscreen PI is available in 13 standard intermixable colours.

Standard Colours

PI- 001	Polyscreen PI Black
PI- 021	Polyscreen PI White
PI- 041	Polyscreen PI Light Yellow
PI- 043	Polyscreen PI Mid Chrome
PI- 101	Polyscreen PI Light Orange
PI- 121	Polyscreen PI Vermilion
PI-122	Polyscreen PI Scarlet(T)
PI-124	Polyscreen PI Deep Red
PI-126	Polyscreen PI Magenta
PI-203	Polyscreen PI Mid Blue
PI-204	Polyscreen PI Royal Blue
PI-206	Polyscreen PI Deep Blue
PI-283	Polyscreen PI Bright Green
PI-383	Polyscreen PI Extender Base
PS- 386	Catalyst (Part 2)

Safety and Handling

- Product marked (T) Contain lead and therefore should not be used on objects liable to be chewed by children and may cause harm to unborn child.
- All other products are formulated free from lead and other heavy metals.
- Is formulated to be free from any (toxic) carcinogenic, mutagenic or reprotoxic chemicals.

Comprehensive information on the safety and handling of Polyscreen PI screen inks is given in the Material Safety Data Sheet, which is available on request.

Environmental Information

- Polyscreen PI ink system does not contain ozone-depleting chemicals as described in the Montreal Convention.
 - Is free from heavy metals except in inks marked (T).
 - Is formulated free from aromatic hydrocarbons which are known to have an adverse effect on the environment.
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The information and recommendations contained in this Product Information 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 Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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