



Polyscreen PS Two-pack Screen Inks

Polyscreen PS is a two-pack screen ink combining outstanding resistance to many chemicals and solvents with excellent adhesion to an extensive range of 'difficult' surfaces.

Mixing

Polyscreen PS inks are supplied in two parts (ink and catalyst). The tin containing the ink has sufficient space to take the catalyst which must be added to cure the system. Before printing, estimate the amount of ink required for a day's work and thoroughly mix the ink and catalyst together in the following ratios:

Polyscreen Inks:	5 parts by weight
Polyscreen Catalyst:	1 part by weight
Polyscreen Varnish:	3 parts by weight
Polyscreen Catalyst:	1 part by weight

Polyscreen Matt Catalyst is available to obtain finishes ranging from satin to matt by varying the mixing ratio from 5:1 for a satin finish to 1:1 for a matt finish.

Metallic Gold and Silver shades may be produced by mixing, by volume, 3 parts of Polyscreen Varnish with either 1 part of MP461 Rich Pale Gold Powder - Superfine or 1 part of MP467 Silver Paste - Superfine plus 1 part of Polyscreen Catalyst. See Information Sheet 'Universal Tinters, Metallic Inks and Varnishes'. A non-tarnishing gold is also available on request.

Drying

Polyscreen PS 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 ZV551 Thinner and Cleaner or as slow as 5 hours when using ZV574 Retarder. **At room temperature, full chemical resistance and adhesion are not developed until about 4 days after printing.**

Adhesion and outdoor weather resistance are enhanced and drying times considerably reduced if Polyscreen is dried at elevated temperatures, however, Polyscreen inks are not recommended for use in applications where prolonged outdoor exposure is a possibility. As drying times vary considerably depending on conditions, the following table is only a guide.

Air Drying (Ambient Temperature)

Using:

- ZV551 Thinner & Cleaner 0.5 -1 hour
- ZE570 Thinner & Cleaner 1-2 hours
- ZE574 Retarder 2-5 hours

Convection Oven Stoving

- 150°C for 5-8 mins.
- 120°C for 10-15 mins.
- 80°C for 20-30 mins.

Long/Medium Wave Infra-red Stoving

- 150°C for 3-6 mins.
- 120°C for 5-10 mins.
- 80°C for 10-15 mins.

Short Wave Infra-red S

- 10 to 30 seconds.

Main Characteristics

Finish

High Gloss or Matt

Drying

Air drying: 0.5 - 5 hours dependent on thinner.
Stoving: 120°C, 10-15 minutes.
Short Wave Infra-red: 10-30 seconds.

Thinning & Wash-up

5-10% ZE570.
For fast printing use ZV551, for extra screen stability use ZE574.
Wash up with ZE570, ZV551 or Seriwash Universal Screenwash.

Mesh

Nos. 90-120 monofilament.

Stencil Type

Any type except solvent adhering film and Stenplex Amber.
Recommend:
Indirect or 25/35 micron capillary film
Sericol: Dirasol 902, Dirasol 916

Coverage

20-26 m²/kg. No. 110

Applications

Aluminium, brass and other metals.
Polyethylene, polypropylene and other plastics.
Glass, vitreous and stoved enamel surfaces.
Silvering resistant prints in mirror production.

Colour Range

14 shades

Properties

Exceptional resistance to heat (including soldering), chemicals and other industrial products. Excellent adhesion to plastics, metals and ceramics.
Suitable for pad printing.
Resistance to mirror silvering processes.

Chemicals and Solder/Heat Resistance

Once the inks are fully cured they possess exceptional resistance to most common chemicals such as acids, alkalis as well as solvents, grease, cosmetics, detergents and household products. They are extensively used as component location inks and are suitable for use on printed circuit boards to meet BS 6096. Because of their excellent heat resistance, Polyscreen inks can also be used in laminating and often as solder resists.

IMPORTANT:

Stir well before every use. Always test the adhesion of Polyscreen on the article to be printed, as supposedly similar materials are liable to vary between different manufacturers and even between different batches.

Adhesion

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

Polyscreen 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, ZS640 Tursub or Propanol.

Colour Range

Polyscreen PS is available in 14 standard intermixable colours. Polyscreen Varnish is also available for mixing into any colour where a greater transparency is desired.

Due to a rigid selection of pigments with universally high product and heat resistance, some of the standard shades listed below do not precisely correspond in shade to those shown in our Graphic and Packaging Inks Colour Guide.

Standard Colours

Polyscreen PS:

PS001	Black
PS021	White
PS041	Light Yellow
PS043	Mid Chrome
PS101	Light Orange
PS121	Vermilion
PS122	Scarlet
PS124	Deep Red
PS126	Magenta
PS203	Mid Blue
PS204	Royal Blue
PS206	Deep Blue
PS283	Bright Green
PS285	Deep Green
PS383	Polyscreen Varnish (Extender Base & Metallic Ink Medium)
PS386	Catalyst (Part 2)
PS387	Special Matt Catalyst

Standard Packing

Polyscreen PS Ink Base (Part 1)

PS001, PS021 & PS383 - 5 and 1 kg containers

All other colours - 1 kg containers

PS386 Polyscreen PS Catalyst (Part 2)

1 and 0.2 kg containers

PS387 Polyscreen PS Special Matt Catalyst (Part 2)

5 and 1 kg containers

Solvents

ZE570 Thinner and Cleaner

ZV551 Thinner and Cleaner (Fast)

ZE574 Retarder

ZE583 Gel Reducer

ZE584 Gel Retarder

Available in 25, 5 and 1 ltr containers.

Universal Tinters

A range of 10 highly concentrated colour bases for tinting. They are designed to mix easily into all Polyscreen inks. Up to 10% may be added. See Information Sheet 'Universal Tinters, Metallic Inks and Varnishes'.

Special Matches

Colours can be supplied against prints, wet ink samples or to PANTONE® references, British Standard, 'HKS', 'Munsell' or 'Seritone' numbers. A sample of the substrate to be printed, with the number and type of mesh to be used, should be attached to orders. Other properties required of special matches may be very important and it is necessary that full details are supplied of the process to be followed. Our Customer Service Department will be pleased to advise on non-standard colours.

Minimum quantity 5 kg.

Safety and Handling

Polyscreen PS:

- Is formulated to be free from any (toxic) carcinogenic, mutagenic or reprotoxic chemicals.
- Contains barium and therefore should not be used on objects liable to be sucked or chewed by children.

Comprehensive information on the safety and handling of Polyscreen PS screen inks and solvents is given in the appropriate Sericol Safety Data Sheet, available on request.

Environmental Information

Polyscreen PS:

- Does not contain ozone depleting chemicals as described in the Montreal Convention.
- Is formulated free from aromatic hydrocarbons which are known to have an adverse effect on the environment.

PS386 Catalyst/PS387 Special Matt Catalyst:

- Do not contain ozone depleting chemicals as described in the Montreal Convention.

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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