

# Graphic Screen Inks

## Outdoor Signage

## POP/Displays

### **POLYPLAST IN**

**Outdoor Screen Inks for Wide Range of Plastics**

#### **Features**

- Solvent Based
- Good Outdoor Durability
- High Gloss
- Excellent Screen Stability & Self Solvency
- Suitable for Machine & Manual Printing
- Good Flexibility
- Suitable for Vacuum Forming
- Good Resistance to a Wide Range of Solvents
- Unlimited Colour Matching Capability
- Capability of Matching Metallics

#### **Substrate**

Wide range of plastics such as:

PVC, CAB, ABS, PC, Acrylics & Coated Polyester

**TEST INKS ON SUBSTRATES  
BEFORE PRODUCTION RUN**

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

## Thinning

Maximum of 20% by weight of ink used. Various options for thinning are available. Please refer to section on 'Solvents'.

## Mesh

Print the Polyplast IN inks & metallics through 90/cm to 120/cm, monofilament polyester fabric, depending on the application. Depending on particle size, metallics may have to be printed through mesh that is coarser than 90/cm.

For fine details & half tone printing, use amber or yellow coloured fabric.

## 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 132 single pack or Dirasol 915 two-pack.

## Drying

**Air dry:** up to 15 minutes. Do not stack prints immediately. Allow sufficient time for through cure.

**Jet dry:** 55 to 65 degree centigrade, for up to 20 seconds. Prints must be cooled to ambient temperature before stacking.

## Coverage

Polyplast IN inks should give a coverage of 70 to 80 sq.m./kg, when printed through a 120/cm mesh.

## Wash Up

Wash up screens with SS639 Universal Screen Wash. This will ensure long life of stencils made with Dirasol emulsions.

## Outdoor Use

Polyplast IN inks have been successfully tested for weathering in a QUV Weatherometer, as per ASTM G53 test specification, using UVB-313 lamps. All inks, except IN-164, withstood 2000 hours without appreciable colour change.

Accelerated weathering tests cannot be precisely related to outdoor performance. However, the Polyplast IN Inks, overprinted with PY 433, is expected to have an outdoor life of two years.

**In case of trichromatic (halftone) colours and metallic inks, overprinting with Polyplast PY433 EL Overprint Varnish is necessary.** For optimum weatherability, it is recommended to overprint all IN prints with PY 433.

## 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.

## 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 to three years from the date of manufacture.
- **Stir well before every use.**

## Applications

The Polyplast IN inks are widely used for outdoor signage, POP display, decal & vacuum forming.

For Backlit application and reverse printing, **use only IN 021 white for back up coat.** Please ensure that the glow box is adequately ventilated to prevent heat build up inside, which would otherwise adversely affect durability of the printed inks.

## Product resistance

Polyplast IN inks have good resistance to a wide variety of solvents including petrol and alcohol. Where exceptionally high resistance to petrol is required, overprinting with VA401 APR Varnish is recommended.

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**APR varnish should not be used for prolonged outdoor exposure in excess of two years in temperate climate.**

The Polyplast IN Ink System is battery acid resistant except those colours marked (T) in the list below, which will undergo a shade change through prolonged contact. **For optimum battery acid resistance, it is recommended that only lead-free inks or the IN EL system are used.**

## Colour Range

The Polyplast IN Ink System includes Seritone Matching System colours, line colours, two sets of trichromatic (halftone) colours, metallics and a UV curable overprint clear medium.

The Polyplast IN-383 Extender Base is used for the following purposes:

- as a constituent of the Seritone Matching System
- for mixing with standard IN colours to promote transparency
- for overprinting IN colours to give additional abrasion resistance

## Seritone Colour Matching System

This consists of eleven lead free, transparent colours that are suitable for intermixing to produce clean shades. This system also contains four lead containing colours.

**Caution:** Using less than 5% of any colour in a match will decrease its outdoor durability.

### a) Lead Free Colours

IN-010	Tinting Black
IN-030	Tinting White
IN-064	Light Yellow (GS)
IN-066	Mid Chrome (RS)
IN-114	Deep Orange
IN-127	Deep Violet
IN-164	Red (BS)
IN-165	Magenta
IN-191	Vermilion/ Red (YS)
IN-230	Blue
IN-325	Green

IN-383	Extender Base
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### b) Lead Containing Colours

IN-041	Light Yellow (T)
IN-043	Mid Chrome (T)
IN-102	Deep Orange (T)
IN-121	Vermilion (T)

### Line Colours

IN-001	Black
IN-021	White
IN-025	Opaque White
IN-122	Scarlet Red (T)
IN-126	Magenta
IN-201	Peacock Blue
IN-204	Royal Blue
IN-281	Brilliant Green (T)

### Trichromatic (Halftone) Colours

Polyplast IN Ink System consists of two sets of trichromatic colours:

#### a) Standard

IN-004	Trichromatic Black
IN-052	Trichromatic Yellow
IN-135	Trichromatic Magenta
IN-215	Trichromatic Cyan
IN-396	Trichromatic Ext. Base

#### b) Special (for backlit)

IN-A01	Spl. Trichromatic Magenta
IN-A02	Spl. Trichromatic Cyan
IN-A03	Spl. Trichromatic Yellow

## Metallic

IN-461	Rich Pale Gold
IN-462	Silver
IN-463	Bright Silver
IN-464	Sparkle Silver

## Colour Matches

Colour matches can be supplied against prints and/or wet ink.

## Solvents

SS-557	Reducer
SS-558	Slow Reducer (Retarder)
SS-639	Universal Screen Wash

The slow reducer will increase the drying time of print, whilst the fast reducer will decrease the drying time of print.

## Co-Use with other Sericol Inks

Polyplast IN Ink System may be safely intermixed with Perfect Matt PM, although compatibility should always be checked before taking production run. Polyplast IN will overprint Perfect Matt PM; however, it is not recommended that PM overprint IN.

## Safety and Handling

■ Products 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 and are tested as per EN71-3:1988 Toy Safety Standard.

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

## Environmental Information

Polyplast IN Ink System does 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 material vary. For the same reason, our products are sold without warranty and on the condition that users shall make their own tests to satisfy themselves that they will meet fully their particular requirements. Our policy of continuous product improvements might make some of the information contained in the Product Information sheet out of date and users are requested to ensure that they follow current recommendations.

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