

# Graphic Screen Inks

Outdoor Signage  
POP/Displays

## GRAPHICAL GL

Outdoor UV Screen Inks for Wide Range of Plastics

### Features

- UV Curing Inks
- Good Outdoor Durability
- High Gloss
- Very Fast Cure Speeds
- Wide Adhesion range
- Superior Flexibility & Intercoat Adhesion
- Excellent High Speed Printability
- Good Die Cutting
- V-Pyrol Free

### Substrate

Wide range of plastics such as:

Self Adhesive and Rigid PVC, Flex Banners, PC, Acrylics & Coated Polyester, Paper & Board, HIPS

TEST INKS ON SUBSTRATES  
BEFORE PRODUCTION RUN

**SERICOL**  
More than ink...Solutions.  
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## Thinning

Graphical GL inks are supplied press ready and thinning is normally not required. But considered necessary can be thinned with GL-TH Thinner. Upto 3%-5%.

## Mesh

Print the Graphical GL inks 140.34/cm to 165.34/cm, monofilament polyester fabric, depending on the application.

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.

## Curing

14-22 metres per minute through 140.34 mesh with one 80 watt/cm<sup>2</sup> lamp for curing. Cure speeds are dependent on colours, film thickness, opacity and condition of the curing unit.

If undercure is experienced with any colour, demonstrated through wet film or loss of gloss, it is usually due to excess ink deposit. To correct this, the mechanics, such as mesh, squeegee, colour density, belt speed or the amount of UV energy must be changed.

Reduction of colour density is usually achieved by adding GL-381 Mixing Clear in the ink. Adhesion should be at least 80% immediately after curing and final adhesion developing after 4 hours.

## Coverage

Graphical GL inks should give a coverage of 80-90 sq.m./kg, when printed through a 140/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

Graphical GL inks have been successfully tested for weathering in a QUV Weatherometer, as per ASTM G53 test specification, using UVB-313 lamps. Graphical colours withstood 1500 hrs. Of testing before significant deterioration of the colour was evident. (Except GL-164 and GL-114) Accelerated weathering tests cannot be precisely related to actual outdoor performance. But it is considered that 1500 hrs of exposure approximately equals to 3 yrs outdoor exposure in temperate climate.

To achieve maximum outdoor durability, Graphical GL colours must be overprinted with GL-OP Overprint Clear.

For optimum light fastness in colour matched shades, the following recommendations must be observed:

The combined weight and proportions of by weight of GL-025 Opaque white, GL-030 Tinting white and GL-381 Mixing Clear does not exceed 80% of the total colour match mix.

The individual proportion of any one colour except Black is not below 5% of the total mix.

## 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.

Other plastics can become brittle or cause to curl after printing.

## Storage

- Keep inks in a cool place, away from direct sunlight or extreme temperatures.
  - 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 eighteen months from the date of manufacture, under storage at 10 C to 25 C.
  - Stir well before every use.
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## Applications

The Graphical GL inks are widely used for outdoor signage, POP display, decal, Banner\*printing .

\*- Flex Banners pre-wiped with methylated spirit to remove plasticiser for better adhesion.

## Colour Range

The Graphical GL Ink System includes Seritone Matching System colours, line colours, Set of trichromatic (halftone) colours and a UV curable overprint clear medium.

The Graphical GL-381 Mixing Clear is used for the following purposes:

- a) as a constituent of the Seritone Matching System
- b) for mixing with standard GL colours to promote transparency

## Seritone Colour Matching System

This consists of 11 seritone colours that are suitable for intermixing to produce clean shades.

GL-010	Tinting Black
GL-030	Tinting White
GL-064	SMS Yellow (GS)
GL-066	SMS Yellow (RS)
GL-114	SMS Orange*
GL-121	SMS Red (YS)
GL-164	SMS Red (BS)*
GL-165	SMS Magenta
GL-127	SMS Violet
GL-230	SMS Blue
GL-325	SMS Green
GL-381	SMS Mixing Clear

\*- To achieve outdoor durability, It is recommended to use GL-864 and GL-802 in place of GL-164 and GL-114 respectively

## a) Graphical GL Special Colours

GL-026	Extra Opaque White
GL-001	Black
GL-802	EL Orange
GL-864	EL Red (BS)

## Trichromatic (Halftone) Colours

Graphical GL Ink System consists of following trichromatic colours and Overprint Clear

### a) Standard

GL-004	Trichromatic Black
GL-052	Trichromatic Yellow
GL-135	Trichromatic Magenta
GL-215	Trichromatic Cyan
GL-396	Trichromatic Ext. Base
GL-383	Overprint Clear

## Colour Matches

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

## Safety and Handling

The Graphical GL system:

- Is formulated to be free from any known or suspected toxic, carcinogenic, mutagenic or reprotoxic chemicals.
- Is formulated free from lead and other heavy metals.

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

## Environmental Information

Graphical GL 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 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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Certification  
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