

Graphic Screen UV **Inks**

**Outdoor Signage
POP/Displays**

UVIFLUTE PK

Outdoor UV Screen inks for Polypropylene

FEATURES

- UV curing ink
- 1 year outdoor durability
- Satin finish
- Fast curing speed
- Excellent adhesion on corona treated polypropylene
- Superior flexibility and intercoat adhesion
- High speed printability
- Good die-cutting
- V-Pyrol free

Substrate:

Corona treated polypropylene
including fluted and sheet type

**TEST INKS ON SUBSTRATES
BEFORE PRODUCTION RUN.**

SERICOL
More than ink...Solutions.
FUJIFILM

Applications:

UVIFLUTE PK inks are recommended for outdoor signage and POP printing.

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

Outdoor Use:

UVIFLUTE PK inks have been successfully tested for weathering in a QUV Weatherometer as per ASTM G53 test specification using UVB-313 lamps. UVIFLUTE colours withstood 600 hrs of testing before significant deterioration of the colour was evident. Accelerated weathering tests cannot be precisely related to actual outdoor performance. But it is equals to 1 year outdoor exposure in temperate climate.

Pre-production Test:

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.

Do not stir vigorously and temp should not increase 40 degree C.

UVIFLUTE PK is specifically designed for use on polypropylene that is corona discharge treated during manufacture. The deficiency of this treatment decreases with age. It is recommended to always use fresh stock. Any contamination of the surface (e.g. finger marks) will impair adhesion and water resistance or the finished print. This can usually be overcome by wiping the surface with white spirit before printing.

Colour Range:

The UVIFLUTE PK ink system includes the trichromatic (halftone) colours and an extender base that is used to reduce intensity of colours.

Trichromatic Colours:

PK 004	Trichromatic Black
PK 052	Trichromatic Yellow
PK 135	Trichromatic Magenta
PK 215	Trichromatic Cyan
PK 396	Trichromatic Extender Base

Mesh :

Print UVIFLUTE PK inks through 140.34/cm to 165.34/cm, monofilament polyester fabric, depending on the application. For fine details and half tone printing, use yellow or amber coloured fabric.

Stencils :

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

Xtend Prep 101 for abrasion of screen mesh
Xtend Prep 102 for degreasing of screen mesh
Emulsions: Dirasol 132(single pack) or Dirasol 915(two pack).

Wash Up:

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

Coverage:

UVIFLUTE PK inks should give a coverage of 80-100 sq.m/Kg, when printed through a 150.34/cm mesh.

Curing :

Curing rate of inks, printed through 150.34 mesh, with two 80 Watt/cm lamps, is 15-20 meters per minute. Cure speeds are dependant on colours, print film thickness, opacity, printing image and condition of the curing unit(including lamp emission spectrum, power & efficiency) and the substrate being printed.

Required curing has to be studied for the job to job and minimum 175 mJ/cm for CMYK colours.

This is only guideline information but this can vary on ink film thickness, substrate and colour.

The final curing of each colour has to be set at proofing Job and after intended test requirement(adhesion, gloss...etc) before going for mass production.

Care should be taken to ensure that each colour is cured correctly to achieve optimum adhesion to substrate and subsequent overprint adhesion. If undercure is experienced with any colour it can be addressed by reducing the ink deposit (by proper selection of mesh & squeegee) also by adjusting the belt speed & amount of UV energy for curing.

Post Curing:

The chemical reaction initiated by a UV dryer will continue for some time after the prints have emerged. This reaction can adversely affect intercoat adhesion and care should be taken that prints are not over-cured and that adhesion of subsequent colours, as well as the first colour, is assessed at regular intervals.

Important Note:

Under cure can give low gloss and wet film with tacky nature, while **Over cure** can give ink film brittleness and poor inter coat adhesion.

Resistance properties (e.g. adhesion) of the inks should be checked only after 24 hrs of post cure printing operation. Same printing conditions must be followed for proofing and bulk production.

Storage:

- Keep inks in cool place, away from direct sunlight.
- Keep lids tightly closed when not in use.
- Any unused ink should not be returned to can, must be stored separately.
- Shelf life is 18 months from the date of manufacturing under storage of 10 to 25 degree C.
- Stir well before every use.

Safety and Handling:

The UVIFLUTE PK system is formulated to be free from any known or suspected toxic, carcinogenic, mutagenic or reprotoxic chemicals.

This system is formulated free from lead and other heavy metals. Comprehensive Information on Safety and Handling of UVIFLUTE PK screen inks is given in the MSDS which is available on request.

Environmental Information:

UVIFLUTE PK ink system does not contain ozone depleting chemicals as described in the Montreal Convention.

Fujifilm Sericol India Pvt Ltd

- Has certification to the international Environmental Standard, ISO 14001.
- Is committed to minimizing the risk to users of our products, and also to minimizing the impact of our activities on the environment, from formulation through to production and supply.
- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reduce waste through better use of raw materials, energy, water, re-use and recycling.

Important Note:

The information and recommendations contained in this product information sheet as well as technical advice otherwise given by representative of our company, whether verbally or in writing, are based on our present knowledge and experience. Such information/ technical advice is given in good faith, but without warranty, in view of the many factors that may affect processes or applications 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 the products will meet fully the particular requirements of the labels/ brands/ agencies of their clients and also that no proprietary rights and existing laws and legislation are violated.

Our advice does not relieve processors from the responsibility of carrying out their own tests and experiments, nor does it imply any legally binding assurance in respect of properties or suitability for a specific purpose or of the legal status of the listed products.

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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