

Texopaque Classic OP

Plastisol Inks

PRODUCT INFORMATION

Classic OP is part of the Texopaque Series of direct printing, maximum opacity, plastisol inks designed for printing most natural and synthetic fabrics. The series incorporates Fujifilm's unique 'Co-Plus' Technology that eliminates build-up. Classic OP is a conventional plastisol ink.

The Texopaque Series also includes Advantage ON, a phthalate compliant plastisol and Pioneer Ultra YC, a PVC-free and phthalate compliant plastisol (see the respective product information sheets for details).

Curing Information

Classic OP inks must be heat cured at a minimum of 160°C to achieve full wash fastness. Differences in film weight, drying equipment and fabric will greatly affect the dwell time required, but 1.5-3 minutes is typical. Some infra-red units can achieve full cure in a very short time. Time will vary dependant on colour (dark colours curing faster than light colours).

It is essential that the entire thickness of the ink film has time to reach the cure temperature or resistance properties will not be achieved. Evaluate your cure schedule by testing the print at the wash schedule it will ultimately be expected to pass.

Flash curing:

Many factors affect the dwell time required for flash curing. These include the type and wavelength of the equipment used and the distance between the curing unit and the print. Additional factors such as fabric and ink colour, film weight and coverage are also crucial. Under optimum conditions, dwell times of less than 3 seconds can be readily achieved.

Fastnesses

Texopaque Classic OP has good wash fastness to ISO Test Nos. 1 (40°C), 2 (50°C) and 3 (60°C).

Colour Matches

It should be noted that the combination of high wash temperatures and strong detergents can cause colour changes in some colour matches, particularly when very small additions of a base colour are added. For example, pastel shades can change colour as the trace additions of base colours are affected in harsh wash cycles. For this reason, it is essential that all formulations are proofed prior to production to ensure wash fastness properties are acceptable.

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Main characteristics

Co-Plus – what is it?

The interaction of specially engineered raw materials, optimising their internal cohesive forces, to eliminate build-up.

What does it mean for you?

- No build-up - improves productivity
- Excellent opacity - high impact prints
- Low fibrillation - prints look better - longer
- Soft gel - easy to handle - on and off screen
- Soft hand - prints are comfortable to wear

Intermixing and Compatibility with Other Inks

Texopaque Classic OP is intermixable with other Fujifilm plastisols where the presence of phthalate plasticisers is not an issue.

Curing

The ink film must reach 160°C.

Thinning

To increase flow, use up to 5% ZE591 Plastisol Flow Thinner.

Wash-up

Wash-up with ZT639 Screen Wash Universal, ZS540 Tursub or Actisol Superjet Screen Spray.

Mesh

Monofilament 34-100.

Stencil Type

Most direct stencil materials are suitable.

Recommend:

Dirasol SuperTex or Dirasol 916

Coverage & Mesh No.

12-16m²/ltr. No. 43 monofilament.

Applications

Most knitted and woven fabrics typically used for T-shirts, sweatshirts, sports and fashion wear, badges, hats and caps, travel bags, footwear.

Fabrics

Suitable on most common natural and synthetic fibres, i.e. cotton, cotton/polyester blends. Many grades of synthetic fabrics.

Colour Range

PANTONE®* 1000 Matching Formulae.

Properties

Exceptional opacity. Lead-free. Excellent wet-on-wet printability. Unlimited screen stability. High wash resistance. Build-up free.

IMPORTANT:

Stir well before every use. Users should satisfy themselves that Classic OP is compatible with specific textiles and resistance properties are acceptable before commencing production runs.

*PANTONE® is the property of Pantone, Inc.

Prints may be ironed from the back of the fabrics at a cool setting, with a cloth over the printed area. **Prints will not resist dry-cleaning and garments should be marked to this effect.**

Fibrillation

Fibrillation occurs when fibres from the garment break through the ink film during a wash cycle to give a faded appearance. While fibrillation has the look of poor wash fastness it is not caused by the loss of ink and occurs even with fully cured prints. There are several methods to minimise fibrillation, however each results in increased print handle:

- Increase ink film weight
- Use a flash-cure ground coat

As demand for low handle/low film weight prints increases, so does the likelihood of fibrillation. The complex relationship of ink, print technique and garment, reinforces the need to wash test-prints to customer requirements prior to production.

Transfer Printing

For transfer printing please refer to 'Texopaque Transfer System' Product Information sheet.

PANTONE® Matching System

The Classic OP range includes 10 Seritone base colours plus Black, White and Extender Base to produce accurate simulations of PANTONE colours in the coated ('C' suffixed) section. See section 'Fastness' for important information concerning resistance properties of colour matches. The Fujifilm package includes:

1. **PANTONE® Colour Formula Guide**
2. **Fujifilm Formula Guide**
Formulations given in percentages by weight.
3. **PANTONE Formula Scales**
Pre-programmed with PANTONE shades to ensure maximum accuracy, speed and cost savings.

Colour Range

Classic OP:

OP001	Black
OP021	White
OP025	Super Opaque White
OP042 (S)	Seritone Yellow (GS)/Light Chrome
OP043 (S)	Seritone Yellow (RS)/Mid Chrome
OP045	Yellow
OP101	Light Orange
OP162 (S)	Seritone Orange/Light Red
OP165 (S)	Seritone Magenta
OP166 (S)	Seritone Violet
OP199	Warm Red
OP134 (S)	Seritone Red (YS)/Red
OP124 (S)	Seritone Red (BS)/Deep Red
OP227	Light Blue
OP203 (S)	Seritone Blue/Mid Blue
OP212	Blue
OP206 (S)	Seritone Blue (RS)/Deep Blue
OP207	Navy Blue
OP283	Bright Green

OP320	Green	
OP285 (S)	Seritone Green/Deep Green	
OP417	Expanding Base	(±)

Available in 5 ltr and 1 ltr containers

(BS)	Blue Shade	(GS)	Green Shade
(RS)	Red Shade	(YS)	Yellow Shade
(S)	Seritone Base colours		

OP381	Extender Base
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Available in 5 ltr containers.

Thinners/Reducers:

ZE591	Plastisol Flow Thinner
ZS640	Tursub

Available in 5 ltr containers.

Super Opaque White does not share the build-up resistance of the standard colours.

Flash Cure Whites

For details and comparisons of Flash Cure Whites, see the 'Flash Cure Whites' product information sheet.

Trichromatic Inks

For details and comparisons of the plastisol trichromatic ink ranges, see the 'Special Plastisol Inks and Additives' product information sheet.

Special Purpose and Special Effect Inks

A range of special purpose and special effect plastisol inks such as metallics and a range of additives and modifiers such as catalysts, etc. is available. See the 'Special Plastisol Inks and Additives' product information sheet.

Ancillary Products

During printing, fabrics have to be held to the table by means of a pressure sensitive adhesive to ensure good definition is obtained. FlashFix and T-Fix Extra Spray Adhesives are suitable for this purpose. (See relevant Product Information Sheets).

Fujifilm Speciality Ink Systems Limited:

- Has certification to the International Environmental Standard, ISO 14001.
- Has certification to the Quality Management Standard, ISO 9001.
- Has certification to the Occupational Health and Safety Standard, ISO 18001.
- Is committed to minimising the risk to users of our products, and also to minimising the impact of our activities on the environment, from formulation through to production and supply.
- Research and development team, work to an in house Health Safety and Environmental policy, termed 'Design for Health, Safety and Environment', with the aim of proactively developing products with the least impact on health, safety and the environment.

- Regularly review and monitor our impacts and activities, setting objectives and targets as part of a continual improvement process.
- Is committed to reducing waste through better use of raw materials, energy, water, re-use and recycling.

Safety and Handling

Classic OP:

- Is formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic according to Directive 67/548/EC.
- Unless otherwise indicated, colours in the range are routinely tested and supplied EN71-3 2013 approved.
- Products marked (‡) are formulated to comply with EN71-3 2013, but are not routinely tested for compliance with the standard.
- For optimum shelf life, all products should be stored at moderate temperatures, between 5°C and 30°C. Storage outside of these temperatures may lead to deterioration in the performance of the product.

Comprehensive information on the safety and handling of Classic OP screen inks and solvents is given in the appropriate Safety Data Sheets.

Environmental Information

Classic OP:

- Does not contain ozone-depleting chemicals as described in the Montreal Convention.
- Is formulated free from aromatic hydrocarbons.
- Is free of any volatile solvent and can therefore be considered to have less impact on the environment, when compared with solvent-based products.

Öko-Tex Standard 100

Contact your Fujifilm supplier for the latest information concerning the compliance of Fujifilm inks.

The information and recommendations contained in this Product Information sheet, as well as technical advice otherwise given by representatives of Fujifilm Speciality Ink Systems Limited and its associated companies, 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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