



Texopaque Pioneer OK PVC/Phthalate Free

Pioneer OK is part of the Texopaque Series of direct printing, maximum opacity, plastisol inks designed for printing most natural and synthetic fabrics. The series incorporates Sericol's unique 'Co-Plus' Technology which eliminates build-up. Pioneer OK inks are formulated to be PVC/Phthalate Free. See section 'Environmental Information'. The Texopaque Series also includes Classic OP, a conventional plastisol and Advantage ON, a phthalate free plastisol (see the respective production information sheets for details).

Curing Information

Pioneer OK inks must be heat cured at a minimum of 140°C to achieve full washfastness. 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:

Under optimum conditions, dwell times of less than 5 seconds can be readily achieved. FW757 Pioneer Flash Cure White should be used, if a PVC/phthalate free print is required. 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.

Fastness

Texopaque Pioneer OK 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. 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, it occurs even with fully cured prints. There are several methods to minimise fibrillation. However, each results in increased print handle:

- Increase ink film weight

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



Curing

The ink film must reach 140°C

Thinning

Supplied press-ready. High initial gel will break down after stirring/mixing. Up to 5% OK591 Thinner may be added if necessary.

Wash-Up

Wash up with ZT639 Seriwash Universal Screen Wash, ZS640 Tursub or Actisol Superjet Screen Spray. Soaking should be avoided.

Mesh

Monofilament 34-120

Stencil Type

Most direct stencil materials are suitable.
Recommended: Dirasol SuperTex or Dirasol 125

Coverage & Mesh No.

12-16m²/ltr. No 43 monofilament.

Applications

Most knitted and woven fabrics typically used for T-shirts, Sweat Shirts, Sports and Fashion Wear, Badges, Hats and Caps, Travel Bags, Footwear.

Fabrics

Suitable on most common natural and synthetic fibres, for example, Cotton and Cotton/Polyester blends. Many grades of synthetics.

Colour Range

PANTONE®* 1000 Matching Formulae available using the Texopaque Classic OP formulation database.

Properties

Formulated on non PVC containing resins and non phthalate plasticisers. Lead-free. Excellent wet-on-wet printability. Unlimited screen stability. Excellent wash resistance. Build-up free.

Intermixing and Compatibility with Other Inks

Pioneer OK colours can be mixed for immediate use with other plastisols, but only where PVC/phthalate content in the finished product is permissible.

IMPORTANT:

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

*PANTONE® is the property of Pantone, Inc.

- Use a flash-cure ground coat (FW757 Pioneer Flash Cure White)
- Add 0.5-1% of ZEA10 Thixotropic Additive

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.

PANTONE® Matching System

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

1 PANTONE® Color Formula Guide

2 Sericol Formula Guide

A booklet containing formulations given in percentages by weight.

3 Colour Manager Software

For use with IBM Compatible computers. This package enables use of the PANTONE formulations plus:

Storage facility for user's own formulations

Automatic batch sizing and costing

Ink coverage estimator

Stock control system to calculate the amount of stock and a reminder when stocks fall below a chosen (programmable) level.

4 PANTONE Formula Scales

Pre-programmed with the Sericol formulations of PANTONE references to ensure maximum accuracy, speed and cost savings.

Colour Range

Pioneer OK

OK001 (S)	Black
OK021 (S)	White
OK025 (S)	Opaque White
OK042 (S)	Seritone Yellow (Green Shade)/Light Chrome
OK043 (S)	Seritone Yellow (Red Shade)/Mid Chrome
OK162 (S)	Seritone Orange/Light Red
OK165 (S)	Seritone Magenta
OK166 (S)	Seritone Violet
OK134 (S)	Seritone Red (Yellow Shade)/Red
OK124 (S)	Seritone Red (Blue Shade)/Deep Red
OK203 (S)	Seritone Blue/Mid Blue
OK206 (S)	Seritone Blue (Red Shade)/Deep Blue
OK285 (S)	Seritone Green/Deep Green
OK381 (S)	Extender Base
FW757 (S)	Pioneer Flash Cure White

(S) = Seritone Base Colour

Available in 5ltr containers.

Thinner/Reducers

OK591 Pioneer OK Thinner

Available in 5 ltr containers.

Ancillary Products

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

Safety and Handling

Pioneer OK:

- Is formulated to be free from any (toxic) carcinogenic, mutagenic or reprotoxic chemicals.
- Is formulated free from lead and other heavy metals and is tested to comply to the EN71-3: 1995 Toy Safety Standard.
- Should be stored in a cool place. Storage temperatures above 30°C will reduce the shelf-life of the product.
- Is formulated free from phthalate plasticisers.

Comprehensive information on the safety and handling of Pioneer OK screen inks and solvents is given in the appropriate Sericol Safety Data Sheets, available upon request.

Environmental Information

Pioneer OK:

- 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.
- Is free of any volatile solvent and is therefore beneficial to the environment when compared to solvent-based products.
- Is formulated free from PVC containing resins.

Important: The Pioneer OK range has been developed using non phthalate plasticisers and non PVC resins. However the possibility for low level contamination during the manufacturing process exists.

In addition users must be aware of potential sources of contamination such as squeegees, flood coaters, screens and curing equipment which may all contribute trace amounts of phthalate and PVC from previous use with other plastisols. The Pioneer OK range should only be used in conjunction with FW757 Flash Cure White and OK591 Thinner.

Öko-Tex Standard 100

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

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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More than ink...Solutions.



Sericol Limited Pysons Road Broadstairs Kent CT10 2LE England
Telephone: (01843) 866668 Fax: (01843) 872074

UK Sales - Tel: (020) 8391 8010 Fax: (020) 8391 8008
Email: UKsales@Sericol.com

Customer Service Centres - Tel: 0845 084 89 89
Birmingham, Bristol, Broadstairs, Gateshead, Glasgow,
Leeds, London-North, London-South, Warrington.

Technical Helpline - Tel: 0845 770 80 70

Export Sales

Pysons Road Broadstairs Kent CT10 2LE England
Tel: +44 (0)1843 866668 Fax: +44 (0)1843 872122
Email: Exportsales@Sericol.com

www.sericol.com