



Advantage ON Phthalate Compliant⁽¹⁾ Plastisol Inks

PART OF THE TEXOPAQUE SERIES OF INKS

Advantage ON 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 Sericol's unique 'Co-Plus' Technology which eliminates build-up. Advantage ON inks are formulated to be Phthalate Compliant. See section Environmental Information.

The Texopaque Series also includes Classic OP, a conventional plastisol and Pioneer OK, a PVC/phthalate free plastisol (see the respective product information sheets for details).

Curing Information

Advantage ON inks must be heat cured at a minimum of 140°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:

Under optimum conditions, dwell times of less than 3 seconds can be readily achieved. FWA53 Special Flash Cure White should be used, if a phthalate compliant 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 Advantage ON 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.**

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

Advantage ON colours can be mixed with other plastisols, but only where phthalate content in the finished product is permissible.

Curing

The ink film must reach 140°C

Thinning

To increase flow, use up to 5% ON591 Advantage ON Thinner.

Wash-up

Wash up with ZT639 Screen Wash Universal, ZS640 Tursub or Actisol Superjet Screen Spray

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, i.e. Cotton, Cotton/polyester blends. Many grades of synthetic fabrics.

Colour Range

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

Properties

Formulated on phthalate compliant plasticisers. Lead-free. Excellent wet-on-wet printability. Unlimited screen stability. Excellent wash resistance. Build-up free.

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

*PANTONE® is the property of Pantone, Inc.

(1) Phthalate Compliant means that the products listed in this Product Information Sheet are formulated not to contain the Phthalates restricted for use by Council Directive 76/769/EEC (as amended).

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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
- Use a flash-cure ground coat (FWA53 Special 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.

Low Bleed White

Advantage ONLBW is a low bleed white that is designed to minimise dye bleed when printing onto polyester and polyester/cotton blends where dye migration is a concern. The recommended cure schedule is the same as other products in the Advantage ON range, so a minimum temperature of 140°C should be achieved to ensure full wash fastness. Care should be taken to avoid using high curing temperatures as this can cause excessive dye bleed on some fabrics. It is strongly recommended that tests are carried out before starting a production run to ensure compatibility between the ink and fabric.

Transfer Printing

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

PANTONE® Matching System

The Advantage ON 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 Fujifilm Sericol package includes:

1. **PANTONE® Color Formula Guide**
2. **Fujifilm Sericol Formula Guide**
A booklet containing formulations given in percentages by weight.
3. **Color 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 Fujifilm Sericol formulations of PANTONE references to ensure maximum accuracy, speed and cost savings.

Colour Range

Advantage ON

ON001		Black
ON021		White
ON037		Athletic White
ON042	(S)	Seritone Yellow (Green Shade)/Light Chrome
ON043	(S)	Seritone Yellow (Red Shade)/Mid Chrome
ON162	(S)	Seritone Orange/Light Red
ON165	(S)	Seritone Magenta
ON166	(S)	Seritone Violet
ON134	(S)	Seritone Red (Yellow Shade)/Red
ON124	(S)	Seritone Red (Blue Shade)/Deep Red
ON203	(S)	Seritone Blue /Mid Blue
ON206	(S)	Seritone Blue (Red Shade)/Deep Blue
ON210		Ultra Blue
ON285	(S)	Seritone Green/Deep Green
ON381		Extender Base
FWA53		Special Flash Cure White

Trichromatic Inks

ON004	Trichromatic Black
ON058	Trichromatic Yellow
ON135	Trichromatic Magenta
ON215	Trichromatic Cyan

Fluorescent Inks

ON077	Fluorescent Yellow
ON119	Fluorescent Orange
ON179	Fluorescent Red
ON180	Fluorescent Magenta
ON294	Fluorescent Green

Speciality Inks

ON327	Phosphorescent Green
ON370	Dry Glitter Base
ON397	Transparent Glitter Base
ON445	Tack Reducer
ON475	Metallic Gold
ON476	Metallic Silver
ON439	Soft Hand Base
ON417	Expanding Base
ON421	Metatran Adhesive
ONLBW	Low Bleed White

(S) = Seritone Base Colour
Available in 5ltr containers.

ON456 Sparkle Base
Available in 1ltr containers.

Thinners/Reducers

ON591 Advantage ON Thinner

Available in 5ltr containers.

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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 Sericol UK Ltd

- Has certification to the International Environmental Standard ISO 14001.
- 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 & 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

Advantage ON:

- Is not formulated to contain any chemicals toxic to health according to current EU classification criteria.
- Is formulated free from lead and other heavy metals and is tested to comply to the EN71-3: 1995 Toy Safety Standard.
- Has a flashpoint greater than 55°C and is therefore not classified as a "dangerous substance" under the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR).
- 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 Advantage ON screen inks and solvents is given in the appropriate Fujifilm Sericol Safety Data Sheets, available upon request.

Environmental Information

Advantage ON:

- 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.

Important: The Advantage ON range has been developed not to contain phthalates restricted for use by Council Directive 76/769/EEC (as amended). 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 restricted phthalate materials from previous use with other plastisols. The Advantage ON range should only be used in conjunction with FWA53 Special Flash Cure White and ON591 Thinner.

Öko-Tex Standard 100

Contact your Fujifilm 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.

SERICOL
More than ink...Solutions.

FUJIFILM

FUJIFILM SERICOL UK LIMITED

Pysons Road Broadstairs Kent CT10 2LE United Kingdom
Tel: (01843) 866668 Fax: (01843) 872184



UK Sales Tel: (01992) 782619 Fax: (01992) 782602
Email: uksales@fujifilmsericol.com

Customer Service Centres Tel: 0845 084 89 89

Export Sales

Pysons Road Broadstairs Kent CT10 2LE United Kingdom
Tel: +44 (0)1843 866668 Fax: +44 (0)1843 872122
Email: exportsales@fujifilmsericol.com

www.fujifilmsericol.com