

Texopaque Advantage ON

Phthalate Compliant⁽¹⁾ Plastisol Inks

PRODUCT INFORMATION

SERICOL



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's unique 'Co-Plus' Technology that 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 Ultra YC, a PVC-free and phthalate compliant plastisol (see the respective product information sheets for details).

Curing Information

Advantage ON 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:

Under optimum conditions, dwell times of less than 3 seconds can be readily achieved. 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.

Fastnesses

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.

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 Texopaque Classic OP, but only where phthalate content in the finished product is permissible.

Curing

The ink film must reach 160°C.

Thinning

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

Wash-up

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

Mesh

Monofilament 34-120.

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

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.

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.

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. 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 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

Advantage ON:

ON001	Black
ON021	White
ON037	Athletic White
ON042 (S)	Seritone Yellow (GS)/Light Chrome
ON043 (S)	Seritone Yellow (RS)/Mid Chrome
ON162 (S)	Seritone Orange/Light Red

ON165 (S)	Seritone Magenta
ON166 (S)	Seritone Violet
ON134 (S)	Seritone Red (YS)/Red
ON124 (S)	Seritone Red (BS)/Deep Red
ON203 (S)	Seritone Blue/Mid Blue
ON206 (S)	Seritone Blue (RS)/Deep Blue
ON210	Ultra Blue
ON285 (S)	Seritone Green/Deep Green
ON381	Extender Base
FWA53	Special Flash Cure White

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

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
ON475	Metallic Gold
ON476	Metallic Silver
ON439	Soft Hand Base
ON417	Expanding Base (±)
ON421	Metatran Adhesive
ONLBW	Low Bleed White

Available in 5 ltr containers.

Thinners/Reducers:

ON591	Advantage ON Thinner
-------	----------------------

Available in 5 ltr containers.

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

Advantage ON:

- Is formulated to be free from any chemicals toxic to health, carcinogenic, mutagenic or reprotoxic according to Directive 67/548/EC.
- 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).
- 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 Advantage ON screen inks and solvents is given in the appropriate Safety Data Sheets.

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

(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).

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.

FUJIFILM SPECIALITY INK SYSTEMS LIMITED

Pysons Road, Broadstairs
Kent CT10 2LE
United Kingdom
T: +44 (0)1843 866668
F: +44 (0)1843 872184
www.fujifilm.eu