

Flash Cure Whites

Phthalate Compliant⁽¹⁾ Plastisol Inks

PRODUCT INFORMATION

Fujifilm offers a comprehensive range of Sericol Flash Cure Whites, enabling printers to choose a product which perfectly suits their requirements.

FW800 Supernova White

- Flash Cure and Highlight White.
- Best all round performance.
- Fast flash response.
- Maximum Opacity.
- Ease of printability.
- Good after tack.

FWA53 Special Flash Cure White

- Good all-round Flash White, with good flash response.
- Prints are bright and opaque.

FWA58 Flash Cure White

- High opacity Flash White.
- Higher structured Flash White.
- Prints are bright and opaque, with good elasticity.

FWA79 Special Athletic Flash White

- Good all-round Flash White good opacity.
- Prints have low handle and are highly elastic.

FW755 Quasar White

- Easy to use Flash White, creamy in colour and structure.
- Prints are opaque, with a yellow-shade white.

ONLBW Low Bleed White

- Designed to minimise dye bleed when printing onto polyester and polyester/cotton blends where dye migration is a concern.

LB021 Multi-Purpose White

- Designed to minimise dye bleed when printing onto polyester and polyester/cotton blends where dye migration is a concern.

Main characteristics

Flash Curing

Under optimal 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, film weight and coverage are also crucial.

Curing

The ink film must reach 160° to ensure full wash fastness is achieved. Care should be taken to avoid using high curing

temperatures as this can cause excessive dye bleed on some fabrics.

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.

Thinning

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

Wash-up

Wash up with ZT639 Screen Wash Universal or Actisol Superjet Screen Spray.

Mesh

Monofilament 34-120.

Stencil Type

Most direct stencil materials are suitable.

Recommended: Dirasol 916, 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, sweatshirts, sports and fashion wear, badges, hats and caps, travel bags.

Fabric

Suitable on most common, natural and synthetic fibres, i.e. cotton, cotton/polyester blends and many grades of synthetic fabrics. ONLBW Low Bleed White is recommended for 100% polyester and cotton/polyester blends, where dye migration is likely to be a concern.

Fastness

Flash Cure Whites have good wash fastness to ISO Test Nos. 1 (40°C), 2 (50°C) and 3 (60°C). 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 affect.

Intermixing and Compatibility with other Inks

Flash Cure Whites can be mixed with other Sericol plastisol products. Where a phthalate compliant print is required, ensure that only a phthalate compliant plastisol is mixed to the Flash Cure White.

Properties

Formulated on Phthalate Compliant⁽¹⁾ plasticisers. Lead-free. Unlimited screen stability. Excellent wash resistance.

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

Properties

Selection of Flash Cure Whites is dependant on several factors including opacity, flash response (speed), after

tack, handle and elasticity. To help selection, the comparison chart below rates the various Flash Cure Whites for each of the key properties.

Product	White Shade	Ease of Printability	Flash Response	After Tack	Opacity	Handle*	Elasticity	Dye Bleed Resistance
FW800	Blue	10	10	10	10	6	6	1
FWA53	Blue	8	8	9	8	5	6	1
FWA58	Blue	7	6	6	8	4	8	1
FWA79	Bright	8	6	6	7	6	10	1
FW755	Yellow	9	7	5	9	2	4	1
ONLBW	Bright	8	7	8	8	4	6	10
LB021	Yellow	7	7	6	8	4	8	10

Available in 5 ltr units.

*Deliberately marked down as plastisols have reduced handle when compared to water based or sublimation inks.
Key: 10 = Excellent, 1 = Poor

Flash Cure Printing - Tips

Warm Up

Before commencing a flash cure print job, let the printing machine index for a few minutes with the flash cure unit on. This will heat the platens to production temperature, and allow the flash time to be set at a constant level, rather than requiring adjustment as the platens warm up during the run.

Platen Adhesive

Always use a platen adhesive that is suitable for flash curing.

Cooling Station

Where possible leave an empty printing head after the flash unit. This is known as a cooling station and allows the flashed colour to lose retained heat prior to the next overprint.

Mesh

Use the finest mesh possible for the ground coat to reduce handle and flash time.

Highlight White

Should a white groundcoat be used, and white also appear in the design a second white known as a highlight white can be added later and the Flash Cure Whites can also be used for this purpose.

Black Keyline

Many designs benefit from a black keyline to tidy up registration. To allow the keyline to overlap other colours, simply Flash Cure the whole design prior to printing the black.

Flow Thinner

Additions of Flow Thinner to an ink will slow down the flash speed and increase the hot-tack.

After Tack

To reduce the after tack of a Flash Cure White, up to 5% ON417 Expanding Base may be added.

Troubleshooting Guide

Symptoms	Causes	Possible Solutions
Flash cured base sticks to next screen.	Ink not fully gelled.	Increase flash time.
	Ink too hot.	Reduce flash time, or leave cooling station.
Ink remains wet after flashing.	Flash cure unit set too low.	Heat up before restart.
	Print area larger than flashed area.	
	Platens cold.	
Poor coverage or build up of overprint colours.	Not enough lift-off.	Increase 'snap' distance.
	Squeegee pressure too high.	Reduce.
	Overprint deposit too high.	Use finer mesh.
Overprints lift garment from platten.	Adhesive needs renewing.	
	Adhesive not suitable for Flash Cure.	
Colour 'bleed' on Flashing.	Synthetic fabric not suitable for Flash Cure.	
Poor definition of overprints.	Ink deposit too high.	User Finer mesh.
	Squeegee pressure too high.	

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, OHSAS 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

Flash Cure Whites:

- Are not formulated to contain any chemicals toxic to health according to current EU classification criteria.
- Are formulated free from lead and other heavy metals and are tested to comply to the EN71-3: 2013 Toy Safety Standard.
- Have a flashpoint greater than 60°C and are therefore not classified as '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 Flash Cure Whites is given in the appropriate Safety Data Sheets.

Environmental Information

Flash Cure Whites:

- Do not contain ozone depleting chemicals as described in the Montreal Convention.
- Are formulated free from aromatic hydrocarbons.
- Are 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 Flash Cure Whites have 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. Flash Cure Whites should only be used in conjunction with the ON591 Thinner.

Öko-Tex Standard 100

Contact your Fujifilm distributor for the latest information concerning the compliance of Sericol 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