

Textile

Screen

Inks

PVC PLASTISOL FGOB

Phthalate Free Plastisol Inks

Features

- **No Build-up- improves productivity.**
- **Excellent opacity- high impact prints**
- **Low fibrillation**
- **Soft gel - easy to handle - on and off screen.**
- **Soft hand - prints are comfortable to wear.**
- **Excellent wash resistance**

**TEST INKS ON SUBSTRATES
BEFORE PRODUCTION RUN**

PVC Plastisol FGOB is part of the Texopaque Series of direct printing, maximum opacity, plastisol inks designed for printing most natural and synthetic fabrics. The series incorporates Colorcroma's unique 'Co-Plus' Technology which eliminates build-up. PVC Plastisol FGOB inks are formulated to be phthalate free. See section Environmental Information.

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 Information

PVC Plastisol FGOB 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 dependent 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. ONB 756 Advantage Flash Cure White should be used, if a low phthalate 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 PVC Plastisol FGOB has good wash fastness. It passes 5 washes at 60° C/90 minutes. 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.

Thinning

To increase flow, use up to 5% ONB 591 PVC Plastisol FGOB Thinner.

Wash-up

Wash up with SS639 Screen Wash Universal.

Mesh

Monofilament 34-120

Stencil Type

Most direct stencil materials are suitable.

Recommended:

Dirasol SuperTex or Dirasol 125.

Coverage & Mesh No.

12-16 m²/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.

IMPORTANT:

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

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 result in increased print handle:

- Increase ink film weight.
- Use a flash-cure ground coat (FW756 Advantage Flash Cure White)
- Add 0.5-1% of ZEI 010 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.

Transfer Printing

Phthalate free transfers can be produced by using PVC Plastisol FGOB in conjunction with a phthalate free transfer adhesive (XMAII).

For production of multi-colour transfers, each colour should be heat set on the transfer paper.

Heat Setting:

100° C for 30-60 seconds.

It is important that transfers are not over-set, as the adhesion of the transfers to the garment may be impaired.

Transfer Application:

The finished transfer may be applied in a heat transfer press at approximately 180-190° C for 10-15 seconds. Care must be exercised with heat sensitive fabrics. The transfer paper should be allowed to cool down before removal.

Colour Range PVC Plastisol FGOB

FGOB-001 PVC Plastisol Black-N01

FGOB-23 PVC Plastisol White-N23

FGOB-43 PVC Plastisol Yellow-N43

FGOB-45 PVC Plastisol G. Yellow-N45

FGOB-134 PVC Plastisol Red-N134

FGOB-381 PVC Plastisol Medium-N381

Environmental Information

PVC Plastisol FGOB:

- 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.

Thinners/Reducers

ONB591 PVC Plastisol

FGOB Thinner Available in 5ltr 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).

Safety and Handling

PVC Plastisol FGOB:

- Is formulated to be free from any chemical's toxic to health, carcinogenic, mutagenic or reprotoxic.
- 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 away from heat.
- Comprehensive information on the safety and handling of PVC Plastisol FGOB screen inks and solvents is given in the appropriate Colorcroma Safety Data Sheets, available upon request.

Important:

The PVC Plastisol FGOB range has been developed using non-phthalate plasticisers, 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 from previous use with other plastisols.

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 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.