



# SCREEN PRINTING TEXTILE INK **FLASHCOLOR**

**Traditional plastisol ink with fast flash drying :** FLASHCOLOR is intended for direct and transfer printing on light colored and dark textiles. This ink is available in wide range of colors and special effect products.

## Technical specifications

- **Composition :** Free of heavy metal salts.
- **Aspect :** Satin to glossy.
- **Touch feel :** Soft.
- **Colors :** FLASHCOLOR inks can be color matched according to the Pantone® colors. Our Color Matching System software is available directly on our website [tiflex.com](http://tiflex.com).
- **Average yield :** 62 t/cm screen : 25 m<sup>2</sup>/l.
- **Washability :** Very good at 40°C.
- **Ironing :** On the reverse side.
- **Shelf life :** Refer to the product labelling.



## Use

- **Drying :**
  - 2 minutes at 160°C in infrared dryer.
- **Mesh count :**
  - 36 t/cm for printable adhesives.
  - 54 to 62 t/cm for white under base.
  - 48 to 90 t/cm for colors and highlight white.
  - 90 to 120 t/cm for process colors.
- **Printing :**
  - Manual, semi-automatic and automatic carousel.
- **Emulsions :**
  - Solvent resistant emulsions like Tiflex emulsions : 19S, 149S, UST, 400ST, 200S. Depending on the exposure system.
- **Squeegee :**
  - 3C Green (**245604**) recommended.
  - Scraping angle as straight as possible (15 to 22°).
- **Adhesives for paletts :**
  - Aerofix S (**25D1815**), Takter 4000 (**25D1830**), Takter 1 (**25D1720**).
  - Adhesive 0381 (**3344079**) for roller application, Water-based adhesive (**25D3911**) for spray application.

For time saving, you can apply an adhesive Tape on to the paletts (**25D9900**).
- **Cleaning :**
  - Manual : Solvents 2891, 2895, 2899, NS-91, NS-95, NS-55, Plastisol solvent.
  - Washer : Solvents 2881, NS-91, NS-95, Plastisol solvent.

*\* This information is given as an indication and may vary according to the material used.*

## Use

### ■ Additives and thinners :

**Accelerator thinner FLASHCOLOR (3194020) :** Reduction of flash cure time. Add 2% maximum.

**Retardant thinner FLASHCOLOR (3194040) :** Delayed drying in the screen under certain conditions of use (high working temperatures). Add 2% maximum.

**Not compatible with phthalate-free series.**

**Hardener XD 150 (3982099) or Blocked hardener 2362 (3982098) or Hardener GE (3981297) :** Add 5% to reduce dryer parameters (time or temperature). The Blocked hardener 2362 is activated only from 120°C, so it doesn't reduce the ink's pot life.

**Textile bonding agent (3472090) :** Add 3% to improve adhesion on primed substrates. Do not use systematically.

**Gelling agent (3952061) :** Increase of deposit and viscosity. Add 0,2 to 1%. High density printing ; add up to 2%.

⚠ Mechanical agitation required. This effect is optimal 24 hours after mixing ; it's recommended to prepare small quantities.

## Direct printing

■ **Preparation :** Stir the ink first and, if necessary, add plasticizer to obtain the desired viscosity.

■ **Flash cure :** Fast : 3 to 4 seconds.  
For best results, flash settings should be made on warm paletts.

■ **Wet on wet :** Possible with warm paletts. In case of backing, increase off-contact.

■ **Drying :** 2 minutes at 160°C in infrared dryer.

**Polymerization conditions must be tested according to the washing program intended for the textile articles.**

## Transfer printing

### ■ Transfer media :

- Transfer paper\*
  - Polyester sheet for matte transfer\*
  - Polyester sheet for glossy transfer\*
- \*Several formats available.

Put your blank transfer media in Infrared dryer before printing to remove moisture. Protect your transfer media after each pre-gelling to avoid moisture pick-up again. These are harmful to color registration.

■ **Inks :** FLASHCOLOR range can be used almost entirely. The Bright silver (**3964090**) is not transferable. The results are optimized by using screen-printable adhesives or polyester powders.

### ■ Transfer adhesives :

- PET adhesive powder (**3863327**)
- PU adhesive powder (**3863328**)
- Printable adhesive (**3864021**)
- White printable adhesive (**3864022**)

### ■ Pre-drying on transfer media :

- 1 minute to 100-110°C for printable adhesives.
- 30 seconds to 1 minute at 120-150°C for PET adhesive powder (**3863327**).

■ **Heat press :** 20-30 seconds at 170-190°C.  
The dryer and press conditions must be revalidated by washing tests.

■ **Peel :** Hot/Cold peel.  
Remove glossy polyester **only after complete cooling** (cold peel). For other transfer media, hot peel or cold peel can be applied depending on the desired aspect.

## White

■ **White (3964012) :** Fast flashing. To be used an under base or highlight and for processing of Pantone® colors.

■ **Flash cure white (3964010) :** To be used an under base.  
⚠ Fast flash cure only TIFLEX Flash cure.

■ **High opacity white (3964078) :** White high opacity. To be used an under base or highlight.

■ **High opacity mat white (3964077) :** Mat white high opacity. To be used an under base or highlight.

## Special effects

### ■ High density :

Mix 30% of Glossy Elastic Base **(3954091)** into FLASHCOLOR inks paste to guarantee thick-coat layer, while the addition of 5% XD Hardener 150 **(3982099)** or Block Hardener 2362 **(3982098)** or Hardener GE **(3981297)** ensures core polymerization.

Thickness is obtained by using thick capillary film type 400 µ **(2044020)** or multi-coats of emulsion 400ST **(25C2050)** or Textil PV **(2572062)**.

Where prints are to have corners, it is necessary to use Gelling Agent **(3952061)** ; add 0,5 to 2%.

### ■ Metallic effect :

Bright silver **(3964090)**, Sparkle silver **(3964091)**, Gold **(3964095)**, Sparkle gold **(3964094)**.

Many special effects are available in the FLASHCOLOR range, to be used alone or with the FLASHCOLOR range. Please refer to the product reference table below.



Glitter glue



Neon colors



Gold

## Special recommendations

### ■ Washability :

Insufficiently cured ink is the main cause of poor washout resistance. Polymerization parameters should be adapted to suit the material and the customer's conditions of use.

**Polymerization conditions must be tested according to the washing program intended for the textile articles. Poor transfer hold is due to non-compliance with recommended parameters.**

Waterproofing treatments on certain fabrics can prevent ink adhesion and reduce wash fastness.

When direct printing with FLASHCOLOR + Hardener XD 150 **(3982099)** or Block Hardener 2362 **(3982098)** or Hardener GE **(3981297)** or Adhesion Agent **(3472090)** gives insufficient results, we recommend using two-component PU solvent inks: **POLYWORKS**.

### ■ Fibrillation :

Appears when printing on cotton textile with short and loose fibers (uncombed).

The fibers tend to straighten by capillary action through the ink film. Higher ink deposit increase fibrillation effect resulting in a grainy aspect and a rough feel. Too low ink deposit will fade after first print wash given a vintage effect to the print.

The solution is to print the underlay with a 62 t/cm mesh screen. Doing so, the fibers will be fixed and the final finish will be soft. If the viscosity of the ink is too low, the deposit will be reduced. In this case, use Gelling Agent **(3952061)**. FLASHCOLOR Accelerator Thinner **(3194020)** is not recommended.

### ■ Low elasticity :

Origins of the problem can be :

- Ink is not polymerized enough. Heat pressing or second pass through the drying tunnel is necessary.
- Ink deposit is not enough. Prefer two passes.

In the case of use of stretch fabric, add 30% Glossy Elastic Base **(3954091)** into the ink.

### ■ Bleeding :

Bleeding (or dye migration in inks) is visualized by an instantaneous or slow coloration of white (or light) inks. For example, a white print will turn pink on red fabric. Phenomenon appears mainly on 100% polyester or recycled polyester mainly black, red, dark blue.

To prevent dye migration, pass the polyester textile through the drying tunnel before printing to evacuate the humidity.

The tunnel temperature can be lowered to limit dye migration by using XD Hardener 150 **(3982099)** or Block Hardener 2362 **(3982098)** or Hardener GE **(3981297)** in FLASHCOLOR inks.

In the event of excessive bleeding, we recommend using HIMALAYA Antibleeding White **(39H4095)** or CREATIVE CREA Antibleeding Black **(39L4044)**. These inks are not active on the same colorants, and trials are imperative to find the right combination.

For long-lasting results, the ink must be sufficiently polymerized.



### TIFLEX would like to draw your attention to the following points :

Before starting production, we recommend that you check the ink's various compatibilities and resistances on a textile by washing the finished article under the conditions stipulated on its label. Wash fastness may also be reduced by fibrillation (fibers rising through the print). This phenomenon is independent of ink polymerization. High washing temperatures, combined with powerful detergents, can cause color changes in certain shades, including gold and silver.

## Compliance

The FLASHCOLOR series comply with **the EN 71-3 standard, ROHS directive and REACH/CLP regulation.**

## Product range

STANDARD COLORS		Ref. 1 l	Ref. 5 l
	White*	3962012	3964012
	Flash cure white		3964010
	Lemon yellow*	3962014	3964014
	Jaune moyen	3962016	3964016
	Gold yellow*	3962018	3964018
	Orange*	3962019	3964019
	Solid red*	3962009	3964009
	Rubis red	3962027	3964027
	Fuchsia*	3962032	3964032
	Violet*	3962039	3964039
	Royal blue	3962041	3964041
	Ultramarine blue	3962044	3964044
	Meed blue	3962046	3964046
	Primary blue*	3962048	3964048
	Reflex blue	3962025	3964025
	Deep blue	3962050	3964050
	Steel blue	3962054	3964054
	Bright green	3962061	3964061
	Medium green	3962063	3964063
	Green	3962065	3964065
	Mint green*	3962066	3964066
	Emerald green	3962068	3964068
	Caramel	3962073	3964073
	Black*	3962034	3964034

  

OPAQUE COLORS		Ref. 1 l	Ref. 5 l
	High opacity white		3964078
	High opacity mat white		3964077
	Opaque lemon yellow		3964002
	Opaque red		3964008

  

NEON COLORS		Ref. 1 l	Ref. 5 l
	Neon yellow	3962085	3964085
	Neon orange	3962086	3964086
	Neon red	3962087	3964087
	Neon pink	3962088	3964088
	Neon green	3962089	3964089

  

PROCESS COLORS		Ref. 1 l	Ref. 5 l
	Process yellow	3962084	3964084
	Process magenta	3962081	3964081
	Process cyan	3962082	3964082
	Process dark	3962083	3964083

  

BASES		Ref. 1 l	Ref. 5 l
	Thinner base*	3962005	3964005
	Soft thinner base	3962006	3964006
	Puff base	3952090	3954090
	Glitter base		3954096
	Glitter glue		3954099
	Puff transfer base		3954095
	Glossy elastic base		3954091

  

SPECIAL EFFECT		Ref. 1 l	Ref. 5 l
	Bright silver	3962090	3964090
	Sparkle silver	3962091	3964091
	Gold	3962095	3964095
	Sparkle gold	3962094	3964094
	Reflective silver	3962098	3964098

THINNER AND ADDITIVES			
FLASHCOLOR accelerator thinner	5 l		3194020
FLASHCOLOR retardant thinner*	1 l / 5 l	3192040	3194040
Hardener XD 150	250 g / 1 kg	3981299	3982099
Blocked hardener 2362	250 g / 1 kg	3981298	3982098
Hardener GE	250 g	3981297	
Gelling bonding agent	100 ml / 1 l	3470590	3472090
Gelling agent	1 kg	3952061	
Transfer adhesives	See our instructions for use and our part numbers and price list on pages 48-49 of the catalog.		
Spray-on stain remover	5 l		3294030

\* ⚠ Not compatible with phthalate-free series.



**Pantone® Formulation guide online** : The inks marked with an asterisk \*, can be color matched according to the PANTONE® colors. PANTONE® colors are available directly on our website by using our Color Matching System software.

The colors reproduced on this document are not contractual. Upon request, we can provide you with a color chart reproducing the colors in a more faithful way.