



# SCREEN PRINTING TEXTILE INK **CREA FIREPROOF** PHTHALATE-FREE FIRE-RESISTANT

CREA FIREPROOF is plastisol ink, **phthalate-free**, for direct or transfer printing on cotton and synthetic fabrics. It is two pack system : ink + Hardener XD 150.

This range is **fire-resistant** to NF EN ISO 15025 (test associated with ISO 14116).

## Technical specifications

- **Composition :** Free of phthalates, heavy metal salts and azo derivatives.
- **Aspect :** Satin.
- **Average yield :** 43 t/cm screen : 25 sqm/l.
- **Resistance :**
  - Washability : Very good at 40°C.
  - Fire resistance : NF EN ISO 15025 test.
- **Ironing :** On the reverse side.
- **Shelf life :** Refer to the product labelling.



## Use

- **Drying :** 2 minutes at 140°C in infrared tunnel.
- **Screens :** 36 to 43 t/cm.
- **Printing :** Manual, semi-automatic and automatic carousels.
- **Emulsions :** Solvent-resistant emulsions like Tiflex emulsions : 19S, 149S, UST, 400ST, 200S.  
*Depending on exposure system.*
- **Squeegees\* :**
  - 3C Green **(245604)** recommended.
  - Scraping angle as straight as possible.

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

- **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.

- **Additives and thinners :**

**Hardener XD 150 (3982099) or Hardener GE (3981297) or Blocked hardener 2362 (3981098):** It is imperative to add 5%.

## Direct printing

- **Preparation :** Stir the ink first, then add imperatively 5% XD 150 Hardener **(3982099)** or Hardener GE **(3981297)** or Blocked hardener 2362 **(3981098)**.
- **Flash cure :** Adjust according to ink deposit.
  - ⚠ Excessive flashing will dry ink on the surface but in the core.

- **Drying :** 2 minutes at 140°C in infrared tunnel.

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

⚠ **Fire resistance is achieved under optimum printing and drying conditions.**

## Transfer printing

### ■ Transfer media :

- Transfer paper\*
- Polyester sheet for matte 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 :** CREA Fireproof + Hardener XD 150 or Hardener GE or Blocked hardener 2362 can be used in its entirety.

■ **Transfer adhesive :** PET Adhesive powder (**3863327**) imperative.

■ **Pre-drying on transfer media :** 30 seconds to 1 minute at 120-150°C.

■ **Heat press :** 15 seconds at 160-170°C.

The dryer and press conditions must be revalidated by washing tests.

■ **Peeling :** Hot/Cold peel.

Hot or cold peel can be applied depending on the desired aspect.

⚠ **Fire resistance is achieved under optimum printing and drying conditions.**

## Special recommendations

### ■ Resistance :

⚠ **Fire resistance is achieved under optimum printing and drying conditions.**

⚠ **Textile must be imperatively flame-retardant.**

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 CREA FIREPROOF + Hardener XD 150 (**3982099**) or Hardener GE (**3981297**) or Blocked hardener 2362 (**3982098**) gives insufficient results, we recommend using of two-component PU solvent inks : **POLYWORKS FIREPROOF.**

### ■ 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.

### ■ 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.



### ■ 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. To prevent dye migration, pass the polyester textile through the drying tunnel before printing to evacuate the humidity. For long-lasting results, the ink must be sufficiently polymerized.

## Compliance

CREA FIREPROOF is fire-resistant to **NF EN ISO 15025 (test associated with ISO 14116)**. This serie comply with **EN 71-3**, the **ROHS directive** and **REACH/CLP regulations**.

## Product range

| STANDARD COLORS  |              | Ref. 5 l |
|--|--------------|----------|
|  | White        | 34B4012  |
|  | Lemon        | 34B4002  |
|  | Solid red    | 34B4009  |
|  | Primary blue | 34B4048  |
|  | Middle green | 34B4063  |
|  | Black        | 34B4044  |
| BASES  |              |          |
| Varnish  | 1 l          | 34B2058  |
| Varnish  | 5 l          | 34B4058  |

| ADDITIVES AND THINNERS |       | Ref.    |
|------------------------|-------|---------|
| Hardener XD 150        | 250 g | 3981299 |
| Hardener XD 150        | 1 kg  | 3982099 |
| Hardener GE            | 250 g | 3981297 |
| Blocked hardener 2362  | 250 g | 3981298 |
| Blocked hardener 2362  | 1 kg  | 3982098 |
| TRANSFER ADHESIVE      |       | Ref.    |
| PET Adhesive powder    | 3 kg  | 3863327 |

