



SCREEN PRINTING TEXTILE INK

HYDROCOLOR NG

Water-based acrylic ink, FORMALDEHYDE FREE : HYDROCOLOR NG is intended for direct printing on cotton and cotton/polyester textiles. This range is available in transparent colors for touch-free printing.

Technical specifications

- **Composition :** Free of formaldehydes and heavy metal salts.
- **Aspect :** Satin.
- **Touch feel :** No touch.
- **Colors :** HYDROCOLOR NG inks are declinable in Pantone® colors.
- **Average yield :** 48 t/cm screen : 10 sqm/kg.
- **Washability :** Good at 40°C.
- **Ironing :** On the reverse side.
- **Shelf life :** Refer to the product labelling.



Use

■ Drying :

- In forced air tunnel, in IR tunnel with hot air circulation or in cold drying.

Refer to the « Tips - Drying » section.

■ Mesh count :

- 48 t/cm.

■ Printing :

- Manual, semi-automatic and automatic carousels.

■ Emulsions :

- Water resistant emulsions like Tiflex emulsions : 19 T, 200 T, 400 ST.
- Depending on the exposure system.

■ Squeegee :

- For the White : 3C RED or RED 65° recommended.
- For other colors : 3C GREEN or GREEN 75° or GOLD 80° recommended.

■ 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 :

- Water.

Use

■ Additives and thinners :

Catalyst 0564 (35A0564) : 5% addition for drying at room temperature or to reduce the time in the dryer.

Use within 8 hours after mixing at room temperature below 25°C (possibility of repeating the operation once, without altering the ink).

Hardener for cold polymerisation (35A0561) :** 5% addition for drying at room temperature for Opaque white. Use within 4 hours after mixing. Ink cannot be re-catalyzed.

Thickener (35A0263) : Increases ink deposit.

Add 0,2 to 0,5%.

Retardant 3X9394 (3X939420) : Improves open time by reducing viscosity. At 2 to 5%.

■ Pot-life ink + additive :

- 8 hours with Catalyst 0564 (**35A0564**).

- 4 hours with Hardener for cold polymerisation** (**35A0561**).

Direct printing

■ Preparation :

- 85% Metallic base + 15% Gold paste to mix just before use.

- 87% Metallic base + 13% Sylver paste to mix just before use.

■ **Printing :** During stops, the screen should be immediately covered with a thick layer of ink.

■ **Flash cure :** If necessary, flash colors for 4 seconds.

The flashing time required may vary depending on the nature of the banner (aluminum or other), the flashing material the distance between the flash and the print, the color of the ink and the composition of the textile printed.

⚠ Too much flashing can burn the ink. Therefore, it is imperative to test.

■ Drying :

- 3 minutes at 160°C in forced air tunnel, in IR tunnel with hot air circulation.

- Cold drying with 5% of Catalyst 0564 (**35A0564**) added before printing for standard and four-color process shades.

⚠ Catalyst 0564 (**35A0564**) can't be use with neon and metallic colors (tunnel drying imperative).

- Cold drying with 5% of Hardener for cold polymerisation** (**35A0561**) for Opaque white.

Drying parameters (time and temperature) can vary depending on the type of dryer used, its location in the workshop (beware of air currents), the thickness of the ink deposit and the printed color and the nature of the textile.

Whites

■ Opaque white (35A2087) :

Uses as stand alone or as under base.

■ Mixing white (35A2085A) :

To be used for processing of special colors.



Special recommendations

■ Washability :

Textile substrates have varying textures, and may have been previously primed, causing risks in terms of adhesion, resistance and temperature reaction (yellowing).

We remind you that it is essential to carry out preliminary test on cotton and synthetic fabrics before proceeding with production.

In addition, we recommend that you accurately test and set up your dryer, as the main cause of poor washout resistance remains insufficient ink drying.

■ Printing :

When necessary, spray water on the screen before applying the ink. Indeed, a dry screen can cause either a bad printing, or a lack of ink on some parts of the pattern, especially for fine mesh designs. Perform a thick topping when printing.

During breaks and stops, the screen should be immediately covered with a thick layer of ink. This prevents parts of the design from drying. The ink is sufficiently stable in the screen and allows short breaks in printing during a long print run.

Under no circumstances should you scrape the dried ink residue off the sides of the pot, as this could cause them to fall into the ink and cause printing problems later.

■ Screen cleaning :

After long print runs or in case of frequent flashing, the use of soapy water will allow a more efficient cleaning. In case of persistent ink residue, we recommend the use of cleaning solvent.



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

A reduction in wash fastness is possible for some shades with a high base or white content (transparent or pastel shades).

Wash fastness may also be reduced by fibrillation (fibers rising through the print). This phenomenon is independent of ink polymerization. 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.

For use with cold catalysis, items should not be washed within 8 to 15 days of printing.













Compliance

HYDROCOLOR NG inks comply with the **EN 71-3 standard**, **ROHS directive** and **REACH/CLP regulation**.

Product range

WHITE		Réf. 1,4 kg	Réf. 7 kg
Opaque white		35A2087	35A4587

STANDARD COLORS		Réf. 1 kg	Réf. 5 kg
	Mixing white	35A2085A	35A4085A
	Lemon	35A2002A	35A4002A
	Gold yellow	35A2004A	35A4004A
	Orange	35A2006A	35A4006A
	Ecarlate	35A2007A	35A4007A
	Red	35A2010A	35A4010A
	Deep red	35A2011A	35A4011A
	Fuchsia	35A2015A	35A4015A
	Violet	35A2016A	35A4016A
	Bright blue	35A2020A	35A4020A
	Royal blue	35A2025A	35A4025A
	Deep blue	35A2026A	35A4026A
	Bright green	35A2030A	35A4030A
	Deep green	35A2034A	35A4034A
	Green olive	35A2035A	35A4035A
	Brown	35A2042A	35A4042A
	Black	35A2044A	35A4044A

NEON COLORS		Réf. 1 kg	Réf. 5 kg
Neon lemon		35A2070A	35A4070A
Neon orange*		35A2073A	35A4073A
Neon red*		35A2071A	35A4071A
Neon pink*		35A2074A	35A4074A
Neon green*		35A2072A	35A4072A

4-COLOR PROCESS		Réf. 1 kg	Réf. 5 kg
Color process Yellow		35A2050A	35A4050A
Color process Magenta		35A2053A	35A4053A
Color process Cyan		35A2054A	35A4054A
Color process Black		35A2056A	35A4056A

BASES		Réf. 5 kg
Thinner base		35A4066A
Mixing base		35A4058A
Metallic base		3524095

SPECIAL EFFECTS		Réf. 1 kg
Silver paste		3542047
Gold paste		3562096



ADDITIVES AND THINNERS		Réf.
Catalyst 0564	100 g	35A0564
Hardener for cold polymerisation**	100 g	3540561
Thickener	25 g	35A0263
Retardant 3X9394	1 kg	3X939420

**Hardener for cold polymerisation : Skin sensitization, category 1 ; Acute inhalation toxicity, category 4 ; Specific target organ toxicity (single exposure), category 3 ; Chronic aquatic toxicity, category 3

* Neon colors except Neon Lemon are water-based with formaldehydes.

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.

