

# ®CSC SCREEN PROCESS SUPPLIES SDN. BHD.

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## TECHNICAL DATA SHEET

# HYDROFLEX COLD SERIES

### GENERAL INFORMATION

**Hydroflex Cold Series** is an innovative Acrylic-PU hybrid ink system designed for water-based textile screen printing. This series features low curing energy requirements, making it ideal for sustainable and cost-effective production. The ink cures at low temperature, significantly reducing energy consumption while maintaining exceptional performance.

#### Hydroflex Cold Series includes:

- **Hydroflex Cold White:** High-opacity white ink.
- **Hydroflex Cold Clear:** Transparent ink for color matching.
- **Hydroflex Cold Opaque Base:** Semi-Opaque base for color matching and color tinting.
- **Hydroflex Cold Black Base:** Anti-migration properties to prevent dye migration on disperse-dyed polyester fabrics.
- **Hydroflex Cold TC Gloss:** Provides a glossy finish.
- **Hydroflex Cold TC Matt:** Provides a matte finish.

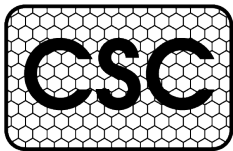
The series combines the elasticity and durability of polyurethane (PU) with the adhesion and stability of acrylic, making it ideal for a wide range of textile applications.

### TYPE OF FABRIC

Hydroflex Cold Series is recommended for:

- **Polyester fabrics with severe dye migration issues** (disperse-dyed).
- Cotton.
- Cotton-polyester blends.
- Rayon and other natural fibres.

**\*ALWAYS PRETEST ANTI-MIGRATION PROPERTIES BEFORE PRODUCTION.  
OBSERVATION UNDER HUMID AND PERIODICAL IF REQUIRED\***



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## APPLICATION METHOD

Hydroflex Cold Series comes ready for color blending. For application, add concentrated pigment (0% to 8%) to the Hydroflex Cold Series base and mix thoroughly to achieve the desired color shade. The ink is ready to use immediately after mixing.

- **Hydroflex Cold White:** Ideal for use as an underbase when printing on dark fabrics.
- **Hydroflex Cold Black Base:** Specifically formulated to act as a base layer on disperse-dyed polyester fabrics with severe dye migration issues. It is recommended to apply the Black Base before Hydroflex Cold White to ensure stability and prevent dye migration.
- **Hydroflex Cold Opaque Base:** Designed for color matching to achieve precise shades.
- **Hydroflex Cold Clear:** Used for color tinting or creating transparent effects.
- **Hydroflex Cold TC Gloss:** Apply as a final layer to achieve a glossy finish.
- **Hydroflex Cold TC Matt:** Apply as a final layer for a matte finish, ideal for achieving a sophisticated look.

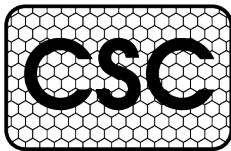
For optimal color vibrancy, use high-quality pigments such as Cassee Pigments. Refer to the CSC CREST system for guidance on achieving accurate and vibrant color results.

## TYPE OF STENCIL & MESH

- **Stencil:** Use water-resistant emulsions. Ensure proper exposure of the stencil for durability.
- **Mesh:**
  - Solid prints: 32T to 59T metric.
  - Detailed prints: 70T to 90T metric.
- **Screen Tension:** 20–35 Newtons.

## SQUEEGEE AND TABLE

- **Squeegee:** 45–65 durometer or double hardness (e.g., 45/90/55).
- **Pressure:** Use low pressure to optimize ink deposit and color vibrancy. Avoid excessive pressure to maintain hand feel and wash fastness.



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## CURING CONDITIONS

Hydroflex Cold Series offers flexible curing:

- **Air Drying:** Self-crosslinking polymer cures in 24 hours under ambient conditions.
- **Low-Temperature Curing:** Cure at **120°C for 90 seconds** with an airflow of 2000 CFM for optimal results

## PACKING AND STORAGE

- Available in 20 kg, 25kg or 200kg containers.
- Store in a cool, dry place below 35°C, away from direct sunlight.
- Seal containers tightly when not in use to prevent contamination

## HANDLING, TOXICITY & HAZARD

Hydroflex Cold Series inks are water-based, non-hazardous, and eco-friendly. They meet E1 standards and are free from harmful chemicals. Refer to the SDS for comprehensive safety and handling guidelines.

## DRYER AND VENTILATION

To ensure proper curing and minimize dye migration, use adequate ventilation with airflow of **2000 CFM** during the curing process.

## OTHER INFORMATION

For printing under critical conditions, the following fixers can be added:

- **CBA EV**
- **CBA EX-100**
- **CBA E05A**

Add as per the recommended dosage and mix thoroughly before application.

**DISCLAIMER:** The above information is based on our current knowledge and understanding of the product and its applications. It is provided as guidance only, and we recommend conducting thorough testing to ensure suitability for specific production conditions.