# Reflective Ink for Textiles - Series 8000

## **Technical Data Sheet**

#### September 2002

#### **Product Description**

3M<sup>™</sup> Reflective Ink for Textiles - Series 8000 is a water-based screen print ink packaged in three separate containers:

Part A is the water-based ink.

Part B is the reflective elements.

Part C is a coupling agent.

Parts B and C are packaged together in the B container, along with an eye dropper for dispensing part C. Correct proportions of the three parts must be thoroughly mixed prior to use (see Application and Mixing Instructions).

#### Performance

For the optimum reflective performance and wash durability, 3M reflective ink for textiles - series 8000 must be printed on an absorbent fabric. The ink was designed to be screen printed on cotton or polyester fabrics. If you are printing on another fabric, there may be a decrease in reflectivity and wash durability. Testing is recommended prior to use.

Color: Dries to a non-gloss surface finish.

Product Number	Daytime Color	Reflected Color
8010	Gray	White
8011	Silver	White
8015	White	White

**Coverage:** 3M<sup>™</sup> Reflective Ink for Textiles - 8010 Gray averages about 250 square feet per gallon, or 23 square meters per 3.785 liters (approximately 6m<sup>2</sup>/liter). Coverage may vary by color.

#### **Application and Mixing Instructions**

#### Preparation

**Screen Fabric:** Monofilament polyester, mesh count 86-125 (number of openings per lineal inch, or 34-50 openings per lineal centimeter).

**Blockout:** Use a water resistant liquid emulsion such as Autosol WR, Ulano 400 WR, TZ, 925 WR, or Chromeline CP3 WR or equivalent.

Thinning: Part A is ready for screening without thinning. Use of drying retarders such as glycols or glycerine may affect the durability of the print and is not recommended.

**Clean-Up:** The resin portion of this ink is a water-based latex. **Timely clean-up is essential to screen preservation.** Wash screens with water immediately after use or when sequential screening will be interrupted for a period of **5 minutes or more.** Failure to promptly clean the screen may allow the ink to permanently dry into the screen.

#### **Mixing Instructions**

Use a polyethylene, stainless steel or glass container for mixing. **Any mixed ink not used within 24 hours should be discarded. All containers should be covered and sealed when not in use.** Mix only amount for immediate screening. Mix all components thoroughly before using.

**Partial Amounts: The ratio for mixing partial amounts is 65:34:1 (A:B:C) by weight.** Weigh out appropriate amounts of parts A and B, and use the eye dropper to add part C.

**Complete Kit:** Mix complete amounts of parts A, B, and C.

## **Application Instructions**

- 1. Use off-contact set-up.
- 2. Use a light fill pass for each impression. Refill the screen with ink after each impression and keep filled during any delays to prevent ink drying in the screen. If a lengthy delay is unavoidable, the screen should be cleaned with water.
- 3. Use a medium soft squeegee.
- 4. Best reflectivity is obtained with a single pass. A coarser screen should be used if more than one pass is required for coverage.
- For maximum durability the screened image must be force dried at 170°C (340°F) for 2 minutes minimum. The drying time may be cumulative within a 24 hour period.

## **Care and Maintenance Instructions**

Select the appropriate care instructions for the finished product. For best image and brightness retention the following guidelines can be used.

# Important: <u>Testing is recommended to assure</u> <u>adequate brightness and adhesion to your substrate</u>.

**Wash:** Machine wash warm, 40°C (105°F)



Bleach: Only non-chlorine bleach when needed



Dry: Tumble dry low

• Iron: Use cool iron, 110°C (230°F)



# **Product Availability**

3M<sup>™</sup> Reflective Ink for Textiles - Series 8000 is available in kits which make approximately 1 gallon of ink.

## **Product Information**

For health and safety issues refer to the 3M Material Safety Data Sheet.

# Storage and Shelf Life

Store each component in original container with air-tight lid at temperatures between 4°C and 32°C (40°F and 90°F). Use by expiration date on Part A label. Shelf life is valid until container is opened.

# Must be protected from freezing.

#### **Important Notice to Purchaser:**

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