

# PLUS 1-SR Product Data Sheet

# **Pre-sensitised Photopolymer Emulsion**

# **PRODUCT DESCRIPTION**

PLUS 1-SR is a blue pigmented pre-sensitised photopolymer direct emulsion.

# **APPLICATIONS**

PLUS 1-SR has been formulated for all high quality applications using solvent based and UV curing inks, including electronics, nameplates and graphics/POS.

# WORKING INSTRUCTIONS

# Unlike conventional diazo sensitised emulsions, PLUS 1-SR does not require sensitising prior to use.

## Safe Light Working

PLUS 1-SR is sensitive to UV light and will 'fog' easily unless handled under good yellow safelight conditions. Similarly, coated screens must be handled under the same safelight conditions. Always store and use the product in original container, replacing lid after use.

## **Mesh Preparation**

Unused polyester/nylon:Autoprep and Universal Mesh PrepUsed polyester/nylon:Universal Mesh Prep or Auto Degreaser Concentrate 1:10

# **Coating & Drying**

PLUS 1-SR is intended for mesh counts between 55 and 165 threads/cm.

- 1. Apply 2 coats to the print side and 2 coats to squeegee side of the screen.
- 2. The screen should be dried at a maximum temperature of 30 ℃ (86 ℃). Take care to store under dark or yellow light conditions.
- 3. Additional coatings may be applied to the underside of the screen with intermediate drying to improve printed edge quality.
- 4. The screen must be fully dried to ensure good exposure performance. If the screen has been stored outside of the drying cabinet it is good practice to re-dry prior to exposure to remove moisture that may be in the coating.

## Exposure

CORRECT EXPOSURE IS ESSENTIAL FOR OPTIMUM STENCIL PERFORMANCE. UNDEREXPOSURE WILL GIVE A WEAK STENCIL AND REDUCE RESISTANCE.



Remove dust from the surface of the stencil and tape positive in position. Place entire screen in a suitable vacuum frame and expose. We recommend use of the Autotype Exposure Calculator for test exposures to ascertain correct timing.

'Correct' exposure can be determined by hardness and 'through cure' of the stencil, and resolution of required detail. When correctly exposed, emulsion should not be easily removed from the squeegee side of the stencil when rubbed with a finger. We recommend the following as a guide in arriving at your best exposure time:

LAMP	DISTANCE	0	20	40	60	80	100	120	140	160
2kW metal halide	120 cm									
3kW metal halide	120 cm									
5kW metal halide	120 cm									
125W mercury vapour	50 cm									
UV fluorescent tubes	10 cm									

Exposure time in seconds based on 2+2 coating on 120/cm (305/inch) amber monofilament polyester mesh.

#### Washout & Drying

Wash out the screen from both sides with a strong spray of water. Continue the washout until all parts of the image appear clean and sharp. Blot off surplus moisture with newsprint or a leather and dry at a maximum temperature of  $30 \degree C$  (86  $\degree$ F).

Spot out blemishes with Autotype Blue Filler or Regular Filler.

#### **Stencil Removal**

Remove ink from the screen with Autosolve Graphics Screen Wash. Apply Autostrip (either Autostrip Gel or a solution of Autostrip Concentrate 1:20) to both sides of the screen. Leave standing for 5 minutes. The stencil can then be removed with a strong water jet or high pressure stripper. If a stain or ghost image still remains, use Autokleen Plus or Autohaze.

#### **HEALTH AND SAFETY INFORMATION**

There are no hazards associated with the normal use of this product. However, splashes in the eyes may be irritating and very sensitive skin may need to be protected.

#### **FIRE PRECAUTIONS**

Non flammable.

#### SPILLAGE

Flush with water.

#### **FIRST AID**

Eyes:	Irrigate with water for 10 minutes.
Skin:	Wash thoroughly.
Ingestion:	Dilute with water and get medical advice.



#### **ENVIRONMENTAL**

This product is a mixture of water dispersible pigmented polymers. The polymers are polyvinylalcohols based photopolymers and/or plasticised polyvinylacetate with a dispersed pigments and surfactants. This product does not contain any materials regarded as ecotoxic or contained on the EC Black/Grey lists. Tests have shown no inhibition of activated sludge at typical effluent concentrations and the product may be regarded as drain safe and biodegradable.

#### **SHELF LIFE & STORAGE**

The emulsion should be stored between 5° and 20°C. Shelf life is 2 years when stored as recommended. Storage at higher temperatures will reduce shelf life.

#### PACKAGING

PLUS 1-SR is sold in sealed plastic containers. Trade packs of 6 x 1 Litres and 4 x 4 Litres and 1 x 200 Litres.

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Note – All data contained herein is based upon limited testing of pre-production material and should not be taken as representative of the eventual mass produced product.

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MacDermid Autotype Ltd, Grove Road, Wantage, Oxon, OX12 7BZ, UK – Tel: +44 (0) 1235 771111, Fax: +44 (0) 1235 771196 MacDermid Autotype Inc, 1675 Winnetka Circle, Rolling Meadows, IL 60008, USA – Tel: +1 847 818 8262, Fax +1 847 818 8280, Toll Free 800 323 0632 MacDermid Autotype Pte Ltd, No. 20 Tuas Avenue 6, Singapore 639307 – Tel: +65 689 79670, Fax: +65 686 31025 www.macdermidautotype.com





