PLUS 8000
High Quality, Pigmented Aqueous Emulsion

DESCRIPTION

PLUS 8000 is a high quality, 38% solids, pigmented aqueous emulsion of water soluble dispersible polymers and monomers supplied with Diazo powder sensitiser.

Applications Resistance to a wide range of water, solvent and co-solvent inks makes PLUS 8000 a suitable direct photostencil for most screen printing applications.

When processed correctly on high tension mesh PLUS 8000 gives a very hard stencil, which is particularly recommended for applications where the very highest print durability and print quality is required. Please note that PLUS 8000 is not suitable for use on low tension, coarse mesh counts when high flexibility is required.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

• PLUS 8000 is designed to give the highest quality printing combined with the maximum durability. PLUS 8000 has a solids content of 38% and is highly resistant to the most aggressive solvent, UV curing and water based inks.

• It has a wide exposure latitude, is easily decoatable and uses direct addition Diazo for maximum consistency of viscosity.

• When processed correctly on high tension mesh PLUS 8000 gives a very hard stencil, which is particularly recommended for applications where the very highest print durability and print quality is required.

• Note that for applications that require very high flexibility on a low tension/coarse mesh then it is recommended to use PLUS 2000 or PLUS TX (US only)

• Reliability for long run printing with a wide range of solvent based, water based and co-solvent inks, the highest print quality from an emulsion.

WORKING INSTRUCTIONS

Sensitising of Emulsion

Handle the emulsion under yellow fluorescent tubes or low wattage Tungsten light. The product is supplied as a two pack kit comprising the emulsion and powder sensitiser in a sachet.

Mix the two components as follows:

1. Cut the Diazo sachet open using a pair of scissors. Do not open with your teeth.

2. Add the Diazo sensitiser DIRECTLY to the emulsion. Do not dissolve the sensitiser in water or add additional water to the emulsion.

3. Stir thoroughly for approximately 2 to 3 minutes to ensure emulsion is sensitised throughout.

4. Allow the emulsion to de-gas for approximately 12 hours for 4 litres (1 gallon).
**Mesh Prep**

<table>
<thead>
<tr>
<th>Material</th>
<th>Product</th>
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</thead>
<tbody>
<tr>
<td>Unused Polyester</td>
<td>Alkemi Autoprep Gel and Universal Mesh Prep or Alkemi Degreaser Conc.</td>
</tr>
<tr>
<td>Used Polyester</td>
<td>Alkemi Universal Mesh Prep or Alkemi Degreaser Concentrate</td>
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<tr>
<td>Stainless Steel</td>
<td>Alkemi Universal Mesh Prep or Alkemi Degreaser Concentrate</td>
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</tbody>
</table>

**Coating & Drying**

Using a good quality coating through, proceed as follows:

1. Apply 2 coats to the print side of the screen.
2. Apply 2 coats to squeegee side.
3. The screen should be dried horizontally, squeegee side up and stored under dark or yellow light conditions. Dry the screen at a maximum temperature of 30°C (86°F).
4. Additional face-coats may be applied to the print side of the screen with intermediate drying.

**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 using Alkemi Anti-Dust Cloths. Place entire screen in a suitable vacuum frame and expose. We recommend use of the Alkemi Exposure Calculator for test exposures to ascertain correct timing.

**Exposure Time**

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<th>Lamp</th>
<th>Distance</th>
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<th>2</th>
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<tbody>
<tr>
<td>2kW metal halide</td>
<td>120 cm</td>
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<tr>
<td>3kW metal halide</td>
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<td>5kW metal halide</td>
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<tr>
<td>125W mercury vapour</td>
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<tr>
<td>UV fluorescent tubes</td>
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WORKING INSTRUCTIONS - CONTINUED

Washout & Drying

Washout 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°C (86°F).

Spot out blemishes with sensitised emulsion (for water-based inks) or Alkemi Blue Block, Green Block or Ruby Block (UV or solvent based inks).

Stencil Removal

Remove ink from the screen, with Alkemi Screen Cleaner. Apply the Stencil Remover Concentrate with the Alkemi Brush to both sides of the screen. Leave it on for 2-4 minutes. The stencil can then be removed with a strong water jet or high pressure washer. If a stain or ghost image remains, use Alkemi Haze Remover HV or Alkemi Autohaze.

For more information on how to use Alkemi products, go to the How to Guide section at macdermidconnect.com

FIRE PRECAUTIONS

The sensitiser powder will burn liberating toxic oxides of nitrogen. If burning extensively, breathing apparatus should be worn. Fires may be extinguished with water or foam.

SPILLAGE

Diazo sensitiser should be collected for authorised chemical disposal. The emulsion may be flushed to waste with extensive dilution. Large spillage should be absorbed in sand or sawdust and transferred to a safe area for disposal.

FIRST AID

Eyes: Irrigate with water for 15 minutes. Get medical advice.
Skin: Wash thoroughly with soap and water.
Ingestion: Wash out mouth. Administer emetic. Get medical attention.

SHELF LIFE & STORAGE

The unsensitised emulsion and sensitiser should be stored between 3°C and 20°C for optimum shelf life. Shelf life is 24 months.
DISPOSAL

Small quantities can be washed to foul waste. Larger quantities should be disposed of by an authorised industrial waste chemical contractor.

PACKAGING

PLUS 8000 is sold in sealed plastic containers.
Trade packs of 6 x 1 Litres, 4 x 4 Litres, 1 x 200 Litres.

HAZARDS

The sensitizer powder is classified as 'harmful' by ingestion. Avoid breathing in dust. Rubber gloves and eye protection (goggles) should be worn, and if large quantities are handled, wear a dust mask. The product may be irritating to the skin, eyes or respiratory tract. Attention should be given to these safety precautions which isolate the user from any hazards. Keep in a dry, cool place away from heat, ignition and children's reach.

Safety Data Sheets are available from MacDermidConnect.
SAFETY & WARNING

MacDermidConnect recommends that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use.

Safety Data Sheets are available from MacDermidConnect

WASTE TREATMENT

Prior to using any recommendations or suggestions by MacDermidConnect for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

CONTACT INFORMATION

To confirm this is the most recent issue, please contact MacDermidConnect

<table>
<thead>
<tr>
<th>North America</th>
<th>Europe</th>
<th>Asia</th>
</tr>
</thead>
<tbody>
<tr>
<td>777 108th Ave NE Suite 1750 Bellevue WA 98004</td>
<td>Weg der Verenigde Naties 1 3527 KT, Utrecht NL</td>
<td>MacDermid Technology (Suzhou) CO., Ltd</td>
</tr>
<tr>
<td>+1 888-910-1008</td>
<td>+31 (0) 304 100 530</td>
<td>23 Long Tan Road, Suzhou Industrial Park, Jiansu Province, PRC</td>
</tr>
<tr>
<td><a href="mailto:orders@macdermidconnect.com">orders@macdermidconnect.com</a></td>
<td><a href="mailto:orderseu@macdermidconnect.com">orderseu@macdermidconnect.com</a></td>
<td>+86 (0) 512 88181201</td>
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<tr>
<td></td>
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<td><a href="mailto:autotype-asia@macdermid.com">autotype-asia@macdermid.com</a></td>
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</tbody>
</table>

Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE.

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