

Graphic PEU

APPLICATIONS

Projection exposure for graphic printing.

GENERAL CHARACTERISTICS

- Universal pure photopolymer emulsion for use with projection exposure equipment
- Excellent resistance to UV-cured, solvent, and water-based ink.
- Post-exposure recommended to optimize water resistance for long print runs.
- Exposes 1.5 times faster than diazo or dual cure emulsions
- Easy to reclaim

DIRECTIONS FOR USE

Handle under yellow safelight or low wattage tungsten lights. Avoid exposure to daylight, quartz/halogen lamps, cool white fluorescent lamps or discharge lamps.

Sensitizing & Mixing

Before using, refer to appropriate material safety data sheets

Mesh Preparation & Degreasing

Degrease and abrade new mesh with SaatiChem Direct Prep 1 in order to optimize stencil adhesion; dry screen and store in a dust free, dry environment prior to coating. For further applications, thoroughly degrease mesh prior to use with SaatiChem Direct Prep 2.

Coating

Using a high quality scoop coater or coating trough, apply one or two coats to the substrate side of the screen, followed by one or two coats on the squeegee side. For a thicker stencil, apply additional coats to the squeegee side prior to drying. For a thin, higher quality stencil, apply one or two additional coats to

the substrate side of the screen after the initial coats have dried.

Drying & Storage

Thoroughly dry the coated screen at a maximum temperature of 104° F (40 °C) in a dust free, dark or yellow light area, with the substrate side facing down to optimize stencil quality. Coated screens should be stored in a dust free, dry, safelight environment.

Exposing

Ensure that all surfaces, especially the film positive and glass of the film holder, are free of dust to minimize pinholes on enlargement. Exposure time depends on variables such as the type of projector and size of enlargement, as well as the mesh count and color and the number of coats of emulsion. Perform an exposure test with a 21-step Sensitivity Guide to determine correct exposure time or through cure. When exposing to obtain high detail, the stencil should hold a solid step 5 upon thorough wash out. When demanding less detail, exposure should be optimized to hold a solid step 7 in order to minimize pinholes. The Sensitivity Guide can either be stripped into a film positive, or alternatively may be taped directly to the surface of the emulsion to be exposed. For some exposure guidelines, refer to tables below.

Exposure Guidelines for Proditec or Rachwal Projectors*						
Mesh Count	158	305	355	390	355	380
Enlargement	1400%	1000%	1000%	1000%	500%	500%
Exposure (SEC)	180	120	80	80	20	20
Exposure Guidelines for Svecia or Richmond Projectors*						
Mesh Count	158	305	355	390	355	380
Enlargement	1400%	1000%	1000%	1000%	500%	500%
Exposure (SEC)	600	400	240	240	60	60

*Above exposure guidelines are for use with white mesh. If dyed mesh is used they should be doubled.

Developing

Wet both sides of screen with a strong, finely divided spray of water and continue washing out until all image area are fully open. Rinse both sides of screen and dry thoroughly before use. A properly exposed and developed screen will not leave residue on the squeegee side.

Post Exposing

Post expose with daylight or exposure lamp to produce a more water-resistance stencil.

Reclaiming

Remove all ink residues immediately after printing with an appropriate solvent. Remove stencil with SaatiChem Remove ER1, ER2, ER4, ER5 or ER10 and a pressure washer. For stains and ghost images, use SaatiChem Remove HR3 followed by a pressure washer.

HEALTH & SAFETY

Before using, refer to appropriate material safety data sheets.

PROBLEM SOLVING

Poor Coating Quality

- Properly clean, degrease and rinse screen to remove all residues and trace of chemicals
- Properly and evenly tension fabric
- Clean and ensure defect edge on scoop coater

Poor Detail or Difficulty Washing Out Image

- Ensure emulsion and coated screens are handled in safelight conditions only

- Ensure a minimum vacuum of 0.66 bar (500 mmHg or 20 in Hg) on vacuum gauge for optimum contact of positive
- Optimize exposure time and use only high quality film positives
- Do not store sensitized emulsions or coated screen at high temperatures

Emulsion Falls Off, Extreme Pinholes or Severe Stencil Breakdown During Printing

- Ensure that damp screens are not being exposed
- Only expose screens with an even and consistent coating thickness
- Ensure that stencil has not been severely underexposed

Difficulty Reclaiming Screens

- Optimize exposure time and properly rinse squeegee side of screen during developing to remove all trace of residue, especially when using higher mesh count dyed fabric

STORAGE

When sealed in the original container and stored in cool conditions, SaatiChem products will maintain their original properties for one year from the date of production.

PACKAGING

Available in one, five, and twenty kilogram containers. In North America, available in one, five and fifty US gallon containers.

WARRANTY & LIMITED REMEDY

The directions, recommendations, and specifications contained in this Technical Data Sheet are meant as a guide to the use of the product and shall not bind the company. Product specifications are subject to change without notice.

The following is made in lieu of all other expressed or implied warranties, including any implied warranty of merchantability or fitness for a particular purpose:

All SaatiChem manufactured liquid products are warranted to be free of defects in materials and manufacture and to meet the specifications stated in SaatiChem's applicable Product Bulletin. SaatiChem will replace or refund the price of any SaatiChem manufactured liquid product that does not meet this warranty within the applicable warranty period.

The remedies are exclusive. In no case shall SaatiChem be liable for any other direct or indirect damage or loss, including without limitation any incidental, special, or consequential damages, or any material costs or labor charges incident to the removal or replacement of any mesh, screen, ink, substrate, finished graphic or any other item.

To receive the Material Safety Data Sheet (MSDS), send an e-mail to: MSDS@saatichem.com

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