



CERAMIC PHW

HIGH DENSITY PHOTOPOLYMER CERAMICS EMULSION

APPLICATIONS

Direct ceramic tile printing with high stencil build-up for specialized operations.

CHARACTERISTICS

- ◆ Red one part pure photopolymer emulsion for dry powder printing resistant to high humidity
- ◆ High solids content and viscosity enable easy production of stencils for high density printing

FEATURES/BENEFITS

- ◆ High solids content (50%) and high viscosity 50,000 cPs for production of 400 micron thick stencils with simple wet on wet coating process
- ◆ Exposes 10X faster than typical two part emulsions for fast exposure at high build up

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 AND MIXING

Emulsion is presensitized during production and does not require mixing.

MESH PREPARATION & DEGREASING

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

COATING

Using a high quality scoop coater or coating through, 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 higher quality stencil with a minimal increase in stencil thickness, 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, emulsion, film and glass are free of dust to minimize pinholes. Contact the emulsion side of the positive with the substrate side of the screen and secure in position before placing the screen in a suitable vacuum frame. Many variables, such as lamp type and age, distance from lamp to screen, mesh type and coating thickness, can affect exposure time. Perform an exposure test with an exposure calculator to determinate correct exposure time for a complete cure.

DEVELOPING

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

POST EXPOSING

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



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RECLAIMING

Remove all ink residues immediately after printing with either SAATI Chemicals Ink Remover IR11 or IR18. Remove stencil with SAATI Chemicals Emulsion Remover ER1, ER2, ER5, ER6 or ER10. For stains and ghost images, use SAATI Chemicals Haze Remove HR3 or HR9 followed by a pressure washer.

PROBLEM SOLVING

POOR COATING QUALITY

- ◆ Properly clean, degrease and rinse the screen to remove all residues and traces of chemicals
- ◆ Properly and evenly tension the fabric
- ◆ Clean and ensure the scoop coater does not present any defect edge

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 the positive
- ◆ Optimize exposure time and use only high quality film positives
- ◆ Do not store sensitized emulsion 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
- ◆ Ensure mixed emulsion is not too old, has been correctly sensitized and has not been stored at high temperature

DIFFICULTY RECLAIMING SCREENS

- ◆ Not reclaimable once catalyzed
- ◆ Optimize exposure time and properly rinse the squeegee side of the screen during developing to remove all residual traces, especially when using higher mesh count dyed fabric

HEALTH & SAFETY

Before using, refer to appropriate Safety Data Sheets. Contact SAATI at info.US@saatiprint.com to request SDS.

STORAGE

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

PACKAGING

Available in 1, 5 and 200 kg containers. In North America, available in one, five and fifty US gallon containers. Packaged with associated Diazo.

WARRANTY & LIMITED WARRANTY

The directions, recommendations, and specifications contained in this Product Bulletin 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 SAATI Chemicals manufactured liquid products are warranted to be free of defects in materials and manufacture and to meet the specifications stated in SAATI Chemicals' applicable Product Bulletin. SAATI Chemicals will replace or refund the price of any SAATI Chemicals manufactured liquid product that does not meet this warranty within the applicable warranty period.

The remedies are exclusive. In no case shall SAATI Chemicals 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.

SAATI Chemicals is a trademark of the SAATI Group. Products manufactured in Italy, USA and China

USA

1.800.431.2200 (Toll-free US & Canada)
info.US@saatiprint.com

FOR MORE INFO

about SAATI visit:
www.saati.com