Grafic PHW

High Density Pure Photopolymer Graphics Emulsion

Applications

High Density graphics printing with UV-cured inks.

Characteristics

- Green one part pure photopolymer emulsion resistant to UV-cured inks and 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 100-200 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 & Mixing

Emulsion is presensitized during production, no mixing required.

Mesh Preparation & Degreasing

Degrease and abrade new mesh with SAATI 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 Direct Prep 2.

Coating

By Hand: 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 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.

With Automatic Coating Machines: For general purpose printing use 1+2 coating program, with one coat on substrate side and two coats on squeegee side of screen. For thicker stencils apply additional coats on squeegee side by changing machine program to 1+3, 1+4, etc. For a high quality stencil with controlled edge definition, but without excessive emulsion build up (EOM), use 1+1 and then dry screen before applying additional 'wet on dry coats' with 1+1 or 2+2 program, until desired Rz value is attained.

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.

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Exposing

With film positive – 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. To confirm correct exposure, adhere a SAATI 21–Step Sensitivity Guide to the perimeter of the emulsion outside of the art, but in an area that will be completely exposed. Develop the image with a strong & finely divided water spray applied equally to all areas of the emulsion, including the sensitivity guide. A correct exposure level is indicated by holding 7 solid steps on the sensitivity guide once developing is concluded.

With Direct to Screen Ink or Wax Mask, or CTS Exposure – Ensure that the emulsion surface is free of dust to minimize pinholes. To confirm correct exposure, adhere a SAATI 21–Step Sensitivity Guide to the perimeter of the emulsion, outside of the art but in an area of the emulsion that will be completely exposed. Develop the image with a strong & finely divided water spray applied equally to all areas of the emulsion, including the sensitivity guide. A correct exposure level is indicated by holding 6 solid steps on the sensitivity guide once developing is concluded.

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 the developed stencil with daylight or an exposure lamp to produce a more water and/or solvent resistant stencil. This is particularly effective process to improve water resistance of SBQ based emulsions for use with water–based inks, or discharge inks for textile printing applications. SAATI Pro–Lite 300 or 450 LED Exposure Lamps are recommended for fast and consistent results with any combination of mesh & emulsion.

Reclaiming

Manual Process – Remove all ink residues immediately after printing with SAATI Remove IR26. Remove stencil with SAATI Remove ER6 (concentrate) diluted in dip tank, or for spray & brush use Remove ER2 (diluted), or Remove ER5. For stains use a second application of SAATI Remove IR26, and for stubborn ghost images, use SAATI Remove HR9 followed by a pressure washer.

Automatic Machine Process – Remove all ink residues immediately after printing with SAATI Remove IR29. Remove stencil with SAATI Remove ER10, ER13, or ER25 (concentrates). For stains use a second application of Remove IR29, and for stubborn ghost images, use SAATI Remove HR9 followed by a pressure washer.

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