



FIVE STAR

DESCRIPTION

The flagship product in the indirect film range, Five Star is recognised world-wide as the name synonymous with consistent quality. Five Star is a red, med/high resolution indirect stencil film that is perfect for short run, very high quality screen printing. Indirect stencil films are especially easy to use as the precision-controlled coating provides the ultimate stencil profile. Wide processing latitude, consistency and quick-turn around to produce high quality prints.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

APPLICATION

General Point of Sale, decals, nameplates, fine line printing and PCB legends.

FEATURES & BENEFITS

- This product is suitable for resolving detail down to 100 microns.
- Mesh range 77 - 180/cm (200 - 450/inch).
- The extremely wide processing latitude and exceptionally easy to use
- Combines high resolution and definition
- Resolves detail down to 100 microns.

INK COMPATIBILITY

Suitable for use with UV and solvent based inks.

SHELF LIFE & STORAGE

The film should be kept in the protective packaging supplied. Store in a cool place away from hot drying cupboards and radiators. Do not store in a damp place. Correct storage conditions are at a temperature of 5 to 20°C (40 to 86°F) and at a relative humidity of 45-60%. Shelf life at these conditions is 24 months.

PACKAGING

This product is available in roll widths of 61 cm, 104 cm and 122 cm wide (24 in, 41 in and 48 in) and in a variety of lengths. Custom cut sheets are available upon request.

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.

WORKING INSTRUCTIONS

Exposure

Cut the stencil film to size and place in the vacuum frame with the polyester base in contact with the positive, which should be right reading emulsion side up. Ensure that the vacuum frame and positive are clean.

Washout

Use a fine spray of water at a temperature of 40 to 45°C (105 to 113°F) evenly washing the entire stencil. Continue washing for at least 60 seconds after the image area appears free of emulsion; this is especially important when producing fine details stencils. Stencils should then be chilled with cool water for 10-15 seconds. Do not chill with water below 10°C (50°F) as this can reduce adhesion of the stencil to the mesh.

Mesh Preparation

All new synthetic monofilament meshes should be abraded with Alkemi Autoprep Gel before use. (Used meshes should be re-abraded after every 5 stencils). All meshes should be degreased using Alkemi Universal Mesh Prep immediately prior to mounting the film.

Mounting

Apply the stencil to a wet screen as this helps to prevent dust and scumming (partial blockage of the stencil open areas). Place the wet stencil on the underside of the screen, emulsion side to mesh. Blot off excess water from the base support with one or two sheets of absorbent paper (unprinted newsprint). Then position the screen on a raised pad of glass or plastic slightly smaller than the inside of the frame, ensuring that the surface is clean and free from high spots.

Between the pad and the screen, lay a sheet of newsprint in order to avoid vacuum adhesion when lifting the screen after mounting the stencil. Using a soft short nap paint roller, firmly apply at least 4 or 5 sheets of clean paper to absorb all surplus moisture. Too light a pressure with the roller will fail to achieve optimum adhesion. Adequate use of paper is necessary to remove moisture and avoid scumming in the open areas.

Drying

Dry the stencil with air directed at the inside of the screen. The fan should not be nearer than 30 to 35 cm (12 to 18 inch) in order to avoid uneven drying. A cold air fan is recommended but drying can be accelerated using warm air up to 35°C (95°F). Hot drying at excessive temperatures (>35°C/95°F) or too low a humidity will cause edge curling, brittleness and a loss of adhesion.

Blockout

Block out the open area between the stencil and the frame and after drying spot out any pinholes with Alkemi Blue Filler or Alkemi Green Block.

Hardening

Immediately after exposure, evenly immerse the photo-stencil film in the hardening solution for one minute. This should be at a temperature of 19 to 20°C (66 to 70°F) and should be ideally made from Alkemi Activator Powder. Hydrogen Peroxide can also be used. Recommended concentration is 1.2% (4 volumes) and the same temperatures and time apply

WORKING INSTRUCTIONS - CONT

Stencil Removal

Clean the screen of all ink and any residues with recommended Alkemi ink remover. After rinsing the screen with water, apply Autostrip or Stencil Remover Concentrate thoroughly with the Alkemi Brush to both sides of the mesh and leave for 2-4 minutes for the emulsion to soften. Then brush over and rinse off with a strong water spray. The most effective removal is with a high-pressure stripper. If a high pressure unit is not available, any ink stain can be removed with an Alkemi Screen Wash or Aquawash. Stencil residue and any residual ink haze can be removed with Haze Remover HV or Autohaze.

CONTACT INFORMATION

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

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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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