Intaglio Printmaker Photopolymer Film
Product Data Sheet

Specifications

- width: 46 cm
- thickness: 50 micron
- resolution: 20 - 25 micron smallest dot size
- Exposure times: 3 - 20 seconds depending on light source
- colour: blue
- after exposure: violet
- handling: under yellow light or in shaded room
- shelf life unexposed: 2 years
- negative working (unexposed parts will be removed during development)
- non-toxic, environment friendly
- aqueous process
- high acid and mechanical resistance

An acid resistant, dry, photopolymer film with high resolution and very fast exposure for the production of intaglio printing plates (photo etching and photogravure). Further fields of application include use as an etch resist for glass, stone, jewellery.

Instructions for Use

Lamination

Clean the surface of the material that should be laminated with the film. The surface ought to be dust and grease free.

Cut a piece off the photopolymer film roll. The film is sandwiched between two protective layers of mylar. Remove the inner protective mylar. (The inner mylar is a little softer and thicker than the outer protective mylar).

The easiest way to laminate is the wet lamination method: Spray both the uncovered side of the film and the surface of the plate evenly with a spray bottle filled with distilled water. Apply the film to the plate and gently squeegee out all water and wrinkles with a rubber squeegee. Then carefully increase the pressure to remove all excess water. Run the plate through a hot laminator once or twice if available.

The plate should be allowed to dry for at least one hour in darkness.

Exposure

The photopolymer film is negative acting so all the areas to be etched are to be positive during exposure. They must be protected from exposure so that the film is washed away in those areas during development leaving them exposed to the acid during etching.

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This is achieved by either drawing directly on the surface of the laminated film with a black sharpie pen or by printing out a positive with an inkjet printer. For printing a positive a wide range of transparencies are suitable, the manufacturers recommend using repro film for screen printing.

To get the best results using a printer to make an opaque transparency use the settings for Photo Glossy Paper and grayscale printing.

If you don't have an exposure unit or vacuum frame, you can use picture frame glass and a soft backing and press the film and laminated plate between them to ensure tight contact between the positive (transparency) and the film surface.

Light sources can be anything that emits uv-light: terrarium lamps, work spot lights, exposure units and last but not least simply the sun. Exposure in the sun produces very precise and good results as long as the exposure time is determined by using a test strip first. Obviously the times will alter depending on the season and time of day. e.g. exposure time in July on a sunny day from 12 – 8pm is approximately 3 seconds

Development

Prepare a solution of 1 percent of soda crystals (developer) and water (e.g. 1 litre water + 10 gram developer) in a tray.

Remove the protective mylar from the film surface and put the plate into the developer. Leave it in there for at least 1 minute. To aid in removing the developed (exposed) residue the surface can be scrubbed carefully with a sponge or a brush. When all residue is removed, pull out the plate and rinse under cold running water for about 1,5 minutes. The unexposed parts should remain adhered to the plate and are fixed by the developer.

If problems occur with unremoved residue the concentration of the developer solution can be raised to 2%.

After development the film has to be dried with a fan, hairdryer or hot air gun for about 2 minutes and then hardened under uv-light for 5 to 10 minutes.`

The plate is now ready for etching.

Removing the Film

After etching the plate, the film can be removed in a solution of 10 % soda crystals in hot water or a 5 % solution of stripper in water. Further methods of removal are the immersion in acetone or alcohol.

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