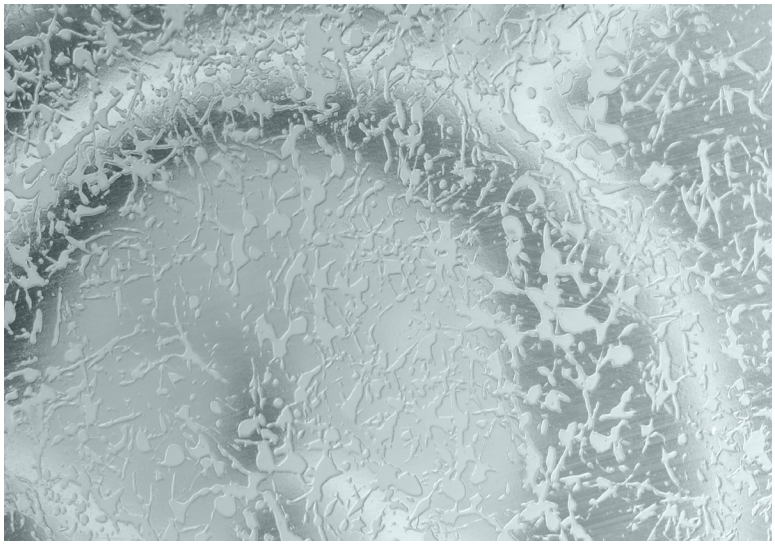
Resists for Chemical Etching of Decorative Glass

TECHNIC
www.technic.com

Liquid Etching Solutions for Decorative Glass

Chemical etching (engraving) has become a very popular way to decorate glass in recent years. Manufacturers can create permanent images on both large-scale float glass, as well as smaller items, such as bottles.



Technic's years of chemical engraving experience, along with our knowledge of product development, has resulted in several products that can be offered to this technique for engraving glass.

The 110/180 series of etch resist inks have been developed to be fully customizable for our customers' needs, with the importance of providing easy, cost-effective and safer solutions for the removal of the etch resist.

Our etch resist inks exhibit excellent adhesion and strip easier than competitors', with no need for hazardous solvents.

Features

- Excellent bubble-free levelling properties
- High definition (no "ghost "in image after etching)
- Excellent adhesion
- Application by conventional screen-printing or by spray
- Quick drying
- High etch resistance

Benefits

- No need for hazardous solvents for resist removal
- Wide drying parameters
- High print definition for sharp images
- Safe and cost-effective resist removal
- Environmentally friendly and lower stripping costs
- Available in large quantities for large scale manufacturing
- Highly customizable process to meet all customer parameters

110/180 Series
Alkali Soluble Etch Resists

Process Specifications

The complete cycle to create decorative glass is relatively straightforward and is the same for both float glass and bottles.

Frosting (optional) → Cleaning → Screen Printing → Drying → Etching HF → Resist Removal

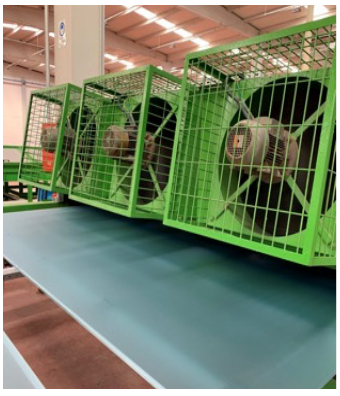
Key Steps:

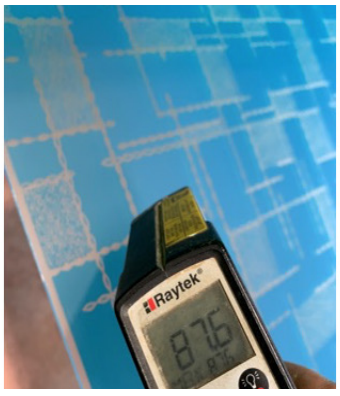
Screen Printing

- The etch resist is applied using screen printing, spray or pad printing techniques.
- 70 to 100T PE mesh with a liquid stencil emulsion is the general set up. The polyester thickness is approximately 0.5 mm thick.
- The stencil and mesh count including percentage of thinner determines the final dry thickness of the etch resist. Typical wet thickness is 10 – 15 microns.

Drying

- Three stage IR ovens with air cooling as a final stage is generally the best set-up.
- For thicker glass, drying must be slowed to achieve approximately the same exit temperature.
- The chemical properties of our 110/180 Series etch resists have been carefully chosen to optimise the drying parameters for either box oven or conveyorized thermal systems. This allows to reduce the drying speeds and maximise production capabilities.





TECHNIC
www.technic.com