

## TURCOFORM MASK 545

### Description:

Turcoform Mask 545 is a one package, hand-peelable protective coating which possesses a high degree of chemical resistance.

This product was specially developed to define areas for selective metal removal in the Chem-Mill Process. When used as recommended this mask gives outstanding protection against a variety of etchant solutions.

### Liquid properties:

Viscosity at 25 °C	20-25 poise
Solids content by weight	17.0 ± 0.5
Solids content by volume	18.5 ± 0.5
Flash point	none to boil
Storage life at 25 °C	min 1 year
Color	light green
Specific gravity	1.57

### Film properties:

Tensile strength	min 84 kg/cm <sup>2</sup>
Elongation at rupture	min 500
Peel adhesion, aluminium	
before etching	75-135 g/cm
after etching	120-200 g/cm

### Hazardous properties:

Read precautionary information carefully before opening. Open container carefully to avoid spurting.

**Caution:** prolonged exposure to high concentrations of vapor may cause irritation to eyes and respiratory tract. Contains chlorinated hydrocarbons. Avoid contact with skin and eyes. Avoid prolonged or repeated breathing of vapor. Do not take internally. Use with adequate ventilation.

### Directions for use

The directions and recommendations given are intended to serve as a general guide to processors and may require modification, based on field experience, to meet local conditions.

### **Mixing**

To assure uniform and reproducible results in applying mask, adequate mixing of the solution is necessary, prior to use (once per 8 hour shift).

### **Selection of thinner**

Turcoform Mask Thinner #4 may be used to reduce the mask for application.

### **Drying**

Heat or ventilation applied to force drying should be used only if the user observes that film quality is satisfactory under these conditions.

### **Cure Schedule**

Air cure schedule: after the final coat of mask is tack-free, allow the film to dry from four to 16 hours minimum, before etching.

Oven cure schedule: tack-free mask may be oven-cured for thirty minutes at 80-90 °C to speed the curing cycle.

### **Chem-Mill Process Application**

\* Aluminium \* Magnesium \* Steel<sup>1)</sup> \* Titanium<sup>1)</sup>

When de-smutting aluminium, except on a finished part, exposure of the mask film to the de-smut solution should be limited to a total of ten minutes. Thus each exposure, as between step cuts, should generally be limited to one minute: followed by thorough rinsing.

<sup>1)</sup> In the steel and titanium process, Turcoform Mask 526 is recommended as a top-coat over the mask film to provide additional resistance against these aggressive acid etchant systems.

### Airless spray application

Mix mask thoroughly before use.

Apply mask as received. This mask is packaged ready-to-spray. If performance indicates it is necessary to add thinner, use toluene or Turcoform Mask Thinner #4.

### Equipment

- a. Graco President or Bullog Hot Airless spray unit.
- b. Graco Reflex gun.
- c. Graco Tip 163-919 or 163-621. For small parts, 163-515.
- d. Graco 206-681 Tip filter assembly with a 205-264 filter element.

Temperature: 60-80 °C

Apply as follows

1. Hold the gun approximately 12 to 15 inches from the part.
2. Spray ½ box coat: that is, one horizontal pass; 75 to 80%.  
Spray one box coat: that is, one vertical pass and one horizontal pass; overlap 50%.
3. Dry film build will be about 6 to 10 mils depending on the speed at which the spray gun is moved. If greater film thickness is desired, apply addition half or full box coat.
4. Allow to dry.

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