



**Beacon Chemical Company**  
 125 So. MacQuesten Pkwy. Mt. Vernon, NY 10550

Tel: 914-699-3400  
 Fax: 914-699-2783  
 e-mail davidmesh@cs.com

**Magna-Tac® M773 A/B**

**Sprayable  
 Equal-Mix Epoxy Adhesive**

	<b>Viscosity (cps) @ 77°F</b>	<b>Color</b>	<b>Base</b>	<b>Wgt/Gal</b>	<b>Solids</b>	<b>Diluant</b>	<b>Shelf Life</b>
Part A	1000	Red	Modified	9.5 lbs.	97%	Do not	1 year
Part B	20000	Amber	epoxy	8.2 lbs.	100 %	dilute	

Magna-Tac M773 is a low mixed viscosity, high strength, 100% reactive, room temperature curing formulated epoxy adhesive for:

- bonding rigid expanded plastic foams to themselves or to metal, plywood, or other rigid materials;
- bonding a wide variety of skins to cores (expanded polystyrene foam, foamed glass, honeycomb, etc.) in the fabrication of sandwich panels.
- bonding all metals and other rigid materials (such as glass, ceramics, most plastics, plastic foams, structural laminates) to themselves and to each other.

Note: Fully cured panels consisting of degreased steel or etched aluminum skins and foamed glass cores produced with this adhesive pass FPL Test Cycles (ASTM Test D1037-55T), also given in ASTM C481, Cycle A.

	<b>Mixing Ratio (by weight)</b>	<b>Properties</b>	<b>Pot Life @ 77° F</b>	<b>Average Lap Shear Strength</b>
Part A Part B	100 PARTS 100 PARTS	For best balance of properties.	2-3 hours (1 qt)	2200 psi

## Surface Preparation

All bonding surfaces must be thoroughly cleaned, degreased and dried. For plastic surfaces, remove mold release if any.

## Preparation of adhesive

Always stir each part thoroughly first. Proportion accurately and mix slowly to avoid entrapping air.

Magna-Tac M773 Part A is colored red; Part B is colored Amber. Mix equal amounts (by volume) and stir until the color of the mixture is uniform.

Note: Pot life can be lengthened substantially if shallow mixing vessels are used or smaller batches are mixed. Cover mixed material to prevent water absorption.

Mixed adhesive may be applied with paint roller, brush or conventional spray equipment, etc. Apply enough mixed adhesive to leave about 4-6 mils in the final glue line. This may be accomplished by coating 4-6 mils on one surface only or by coating 2-3 mils on each surface.

If one surface is porous, more adhesive must be applied to fill the voids and yet produce a final glue line thickness of 4-6 mils.



## Cure Time

### Room Temperature

At room temperature, assemblies can be handled in approximately 8-14 hours. Magna-Tac M773 develops 85% of its maximum strength in 24-48 hours.

NOTE: The bond continues to advance in strength for approximately one week.

Typical lap shear values obtained when Magna-Tac 666 is used to bond 0.064" etched 2024T3 aluminum alloy to itself in a 1/2 overlap are as follows:

<u>Test Temperature</u>	<u>Tensile Shear, psi</u>
-67 F	2000
77F	2500
180F	400

### **Fast Cure**

If a faster cure is required, the following cycles may be used:

#### Elevated Temperatures

<b>Temperature</b>	<b>Cure Time</b>
150° F	120 minutes
200° F	45 minutes
250° F	30 minutes
300° F	10 minutes

Bonds will continue to improve in strength at room temperature until optimum is reached, usually within 3-4 days.

Hardness ..... Shore D65 +/- 5  
Dielectric Constant @ 10<sup>5</sup> cps ..... 3.25 +/- 0.4  
Volume Resistivity @ 25C +/- 3C ..... Min 1.00 x 10<sup>12</sup> ohm-cm  
Thermal Coefficient of Expansion.....65 x 10<sup>-6</sup> inches/inches/C

Container Sizes:        1 quart cans  
                              1 gallon cans  
                              5 gallon pails  
                              55 gallon drums

**Beacon Chemical Company**  
For Ordering & Technical Assistance  
Tel: 914-699-3400  
Fax: 914-699-2783  
Internet: [www.beacon1.com](http://www.beacon1.com)

The information given and the recommendations made herein are based on our research and believed to be accurate but no guaranty of their accurate is made. The products discussed herein are sold without any warranty as to merchantability or fitness for a particular purpose or any other warranty, express or implied