



Magna-Tac M-611

Product Information Sheet

Metal to Metal Structural Epoxy

Viscosity	Color	Base	Wt/Gal	Solids	Diluant	Shelf Life
Paste	Dark Gray	Modified epoxy	9.5 lbs.	100 %	Do not dilute	1 year

Magna-Tac M-611 is a 100% -solids, two-component, solvent-free, formulated epoxy adhesive in paste form specifically designed for metal-to-metal applications and for bonding other rigid materials such as glass, plastics, wood and structural laminates based on glass or fiber reinforced melamine, silicone, polyester, phenolic, epoxy, etc., resins. This adhesive may be cured at room temperature or at elevated temperatures, depending on manufacturing conditions, properties desired and on service requirements for the finished assembly.

Magna-Tac M-611 and CH-16 are specified by Hamilton Standard Div. of United Technologies Corp. for the bonding of treated Teflon to anodized aluminum propeller blade shanks.

Magna-Tac M-611 and CH-1 are certified to MMM-A-134 Type 2.

Surface Preparation

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

Preparation of Adhesive

Weigh each part accurately and mix slowly to avoid entrapment of air.

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

Depending upon the end use service requirements of the completed bond, Magna-Tac M-611 may be used with hardeners which set at room temperatures, at moderate temperatures and at elevated temperatures.

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Cure Time

Catalyst Number	Mixing Ratio (by wt)	Properties	Pot Life @ 77° F	Avg Lap Shear Strength
M611 CH-1	100 PARTS 6 PARTS	For best balance of properties	2.5 hours (1 qt)	2500 psi
M611 CH-16	100 PARTS 32 PARTS	For best impact and peel strength	20 minutes (1 qt)	2500 psi

Heat Curing Hardener CH-1 - Typical Cure cycle is 90 minutes @ 200F

Room Temperature Curing Hardener CH-16 - Typical cure cycle is 7 days, 75% of cure is attained in 24 hrs.

To accelerate the cure of Magna-Tac M-611 / CH-16 any of the following cycles may be used:

Temperature	Cure Time
150° F	60 minutes
200° F	15 minutes
250°F	10 minutes

This system offers best impact resistance.

Application

Mixed Magna-Tac M-611 may be applied with trowel, spatula, knife, etc. Apply enough mixed adhesive to fill all cavities and depressions in both surfaces being bonded and to leave about 4 additional mils of adhesive on each side. After proper mating of the components (with slight squeeze out of adhesive), optimum bond line thickness should range from .003 to .006 inch. (Very heavy glue lines may be tolerated up to 0.010 inch - and the adhesive may be cured in heavy sections with very little shrinkage and with good resultant bond strength.) Assemble the parts immediately after spreading the adhesive since there are no volatile solvents present to be evaporated.

Clean-up solvent: DO NOT ADD THINNER TO THIS ADHESIVE UNDER ANY CIRCUMSTANCES!

Methyl Ethyl Ketone may be used for cleaning equipment or wiping up spilled adhesive before curing.