



Magna-Tac M666

Product Information Sheet

Room Temperature Curing Epoxy Adhesive

	Viscosity	Color	Base	Wgt/Gal	Solids	Diluant	Shelf Life
Part A	Medium Syrup	Red	Modified epoxy	9.5	100 %	Do not dilute	1 year
Part B		Amber		8.2	100%		

MagnaTac M666 is an easy to handle, equal mix by weight, 100% reactive, two part, formulated epoxy adhesive which produces high strength bonds between a wide variety of materials. Coated parts may be mated without delay to cure at room temperature and do not require pressure other than that necessary to keep components in intimate contact during cure.

Fully cured bonds exhibit minimal shrinkage, are electrical insulators and provide excellent resistance to weather, galvanic action and most chemical, acids and alkalis.

It is especially designed for:

- * Bonding rigid expanded plastic foams to themselves or to metal, plywood, or other rigid materials.
- * Bonding a variety of skins to cores (expanded polystyrene foam, foamed glass, honeycomb, ext.) 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 PFL Test Cycles (ASTM Test D1037-55T0) also given in ASTM C481, CycleA).

Fully Cured metal to metal bonds, tested at room temperature using MMM-A-132 procedures, yield up to 3500 psi. Bonds involving expanded styrene foam withstand 175F to 200 hours without cell attack.



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	Mixing Ratio (by weight)	Properties	Pot Life @ 77°F	Average Lap Shear Strength
Part A	100 PARTS	For best balance of properties.	1 hour (1 qt)	2500 psi
Part B	100 PARTS			

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.

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 trowel, spatula, knife, paint roller, brush, 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.

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Cure Time

Room Temperature

At room temperature, assemblies can be handled in approximately 8-14 hours. MagnaTac M666 develops 85% of its maximum strength in 24-48 hours.

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

Fast Cure

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

Elevated Temperatures

Temperature	Cure Time
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 temp until optimum is reached, usually within 3-4 days.

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:

Test Temperature	Tensile Shear, psi
-67 F	2000
77F	2500
180F	400

Container Sizes

- 1 quart cans
- 1 gallon cans
- 5 gallon pails
- 55 gallon drums