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Technical Data Sheet

Maximum Temperature Bearing Mount

INDUSTRIAL

PRODUCT DESCRIPTION **S.I.N.: 834-300**

Permatex® Maximum Temperature Bearing Mount is a single component anaerobic retaining adhesive for cylindrical joints. It is a green colored liquid resin that hardens and cures in the absence of air. Permatex® Maximum Temperature Bearing Mount self-hardens into a tough plastic material when it is confined between close-fitting metal parts. It is used to bond cylindrical fitting parts, particularly where temperature resistance above 200°C is required.

PRODUCT BENEFITS

- No mixing
- No curing outside of joint
- Prevents fretting and corrosion
- Allows the use of slip fit or press fit
- For use on assemblies with gaps up to 0.015" diametral

TYPICAL APPLICATIONS

- Pump housing sleeves
- Bearings in various close fitting applications
- Locating pins in radiator and cooling assemblies

DIRECTIONS FOR USE

1. Remove any grease or oil by using Permatex® Brake & Parts Cleaner.
2. For slip fitted assemblies, apply adhesive around the leading edge of the collar and use a rotating motion during assembly.
3. For press fits, adhesive should be applied thoroughly to both bond surfaces and assembled at high press-on rates.
4. For shrink fitted assemblies, the adhesive should be coated onto the pin; the collar should then be heated to create sufficient clearance for free assembly.
5. For faster cure rates, use Permatex® Surface Prep on both surfaces.
6. Parts should not be disturbed until sufficient handling strength is achieved.
7. Any material that is on the outside of the assembly will not cure. Wipe off with a dry cloth.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Methacrylate ester
Appearance	Green liquid
Specific Gravity @ 77ºF	1.16
Viscosity @ 25°C, Brookfield RVF Spindle 3@ 20 rpm, cps	8500
Flash Point, COC, °C (°F)	>93(>200)
Cure Speed (steel/steel)	Fixture – 1 hour Full cure - 24 hours

For Cleanup

1. Residual liquid films outside the joints are readily soluble in Permatex® Brake & Parts Cleaner.
2. Cured product can be removed with a combination of soaking in Permatex® Gasket Remover and mechanical abrasion such as a wire brush.

For Disassembly

1. Apply localized heat to assembly to approximately 260°C(500°F). Disassemble while hot.

For Reassembly

1. Remove any loose product from the assembly.
2. Apply primer to mating parts.
3. Assemble as per directions.

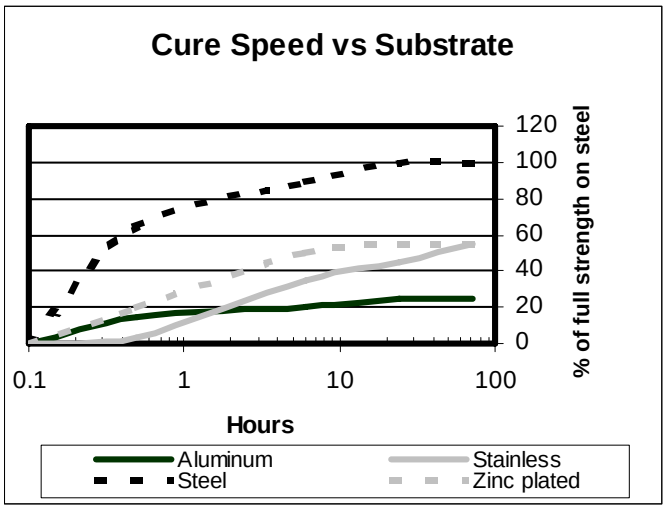
TYPICAL CURING PERFORMANCE

Cure speed vs. substrate

The rate of cure will depend on the material used. Permatex® Maximum Temperature Bearing Mount will react faster and stronger with **Active Metals.** However, **Inactive Metals** will require the use of an activator (Surface Prep) to obtain maximum strength and cure speed at room temperature.

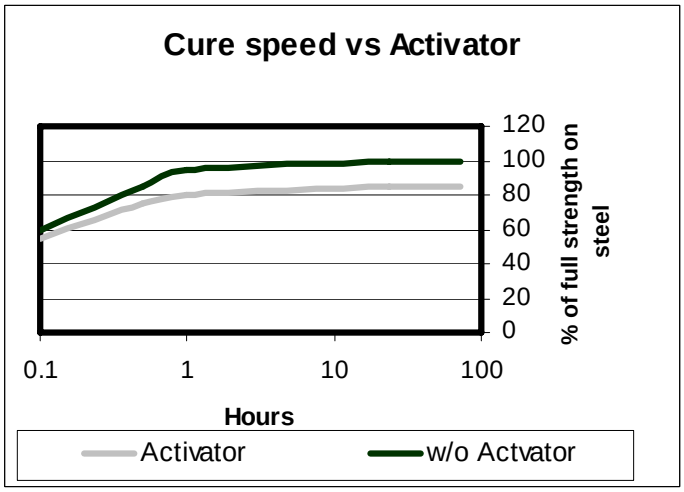
Active Metals	Inactive Metals
Soft Steel Iron	Bright Platings
Copper	Anodized Surfaces
Brass	Titanium
Manganese	Zinc
Bronze	Pure Aluminum
Nickel	Stainless Steel
Aluminum Alloy	Cadmium

The graph below shows the breakaway strength developed with time on 3/8" - 16 Grade 5 bolts and Grade 2 nuts compared to different materials.



Cure speed vs. activator

Where cure speed is unacceptably long, or large gaps are present, applying an activator (Surface Prep) to the surface will improve cure speed. A 3/8-16 steel nut and bolt assembly will fixture in about 5 minutes using an activator, while fixturing will occur in about 20 minutes without an activator. Full cure in 24 hours for both procedures. The graph below shows the breakaway strength developed with time using Permatex® Surface Prep Activator.



PERFORMANCE OF CURED MATERIAL

Temperature Resistance °C(°F) -54 to +232 (-65 to +450)
Shear Strength – 3800PSI
Corrosivity - None (Slightly acidic, may discolor some metals.)

Chemical / Solvent Resistance

Aged under conditions and tested at 22°C(72°F)

% Initial Strength retained after time

	Temp	500hr	1000hr
Heat aged	150°C		145%
Motor oil(SL)	125°C		150%
Antifreeze	87°C	110%	
Gasoline	23°C	95%	
Ethanol	23°C	100%	
Acetone	23°C	90%	

GENERAL INFORMATION

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials. For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

This product is not normally recommended for use on plastics (particularly thermoplastic materials where stress cracking of the plastic could result). It is recommended to confirm compatibility of the product on such substrates.

ORDERING INFORMATION

62050 62001	50 ml bottle 1 liter bottle
62025	250 ml bottle

STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 28°C (46° to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

NOTE

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