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Technical Data Sheet Permatex® High Temperature Flange Sealant

PRODUCT DESCRIPTION

S.I.N.: 834-300

Permatex High Temperature Flange Sealant is a high temperature sealant specifically engineered for making or dressing gaskets in rigid assemblies. It is able to withstand temperatures up to 204°C and fills gaps up to 0.5 mm (primed) and permits clamping loads to be maintained for strong, leak-proof assemblies.

PRODUCT BENEFITS

- Seals all surface imperfections
- Seals most common automotive fluids
- No cracking or shrinking during cure
- Eliminates costly retorquing operations
- Single component system
- Non-corrosive to metal parts

TYPICAL APPLICATIONS

Seals close fitting joints between rigid metal faces and flanges. Particularly suited where maximum temperature and chemical resistance is required.

DIRECTIONS FOR USE

1. Surfaces to be sealed should be free of grease, oil and dirt. Use Brake and Parts cleaner to remove oil. Use Gasket Remover to remove old gaskets
2. Apply manually to one side of the flange, making sure a continuous bead is applied
3. Reassemble parts. Flanges should be tightened as soon as possible after assembly to avoid shimming
4. Torque to normal specifications
5. Parts may be returned to service in one hour.

For Cleanup

1. Wipe off excess material with a clean cloth
2. Clean hands with Permatex Fast Orange hand cleaner.

For Disassembly

1. For smaller assembled parts, heat part to 200°C to 230°C
2. Use cautious light prying or tapping motion to loosen the parts. Repeat heating / prying sequence as needed
3. For larger assembled parts use prying / cleaving tools in combination with a light hammer and cautiously tap and pry the sides of the part to break the gasketed surfaces loose
4. Once parts are disassembled, allow surfaces to cool to room temperature
5. Use Gasket remover to remove dried anaerobic material.

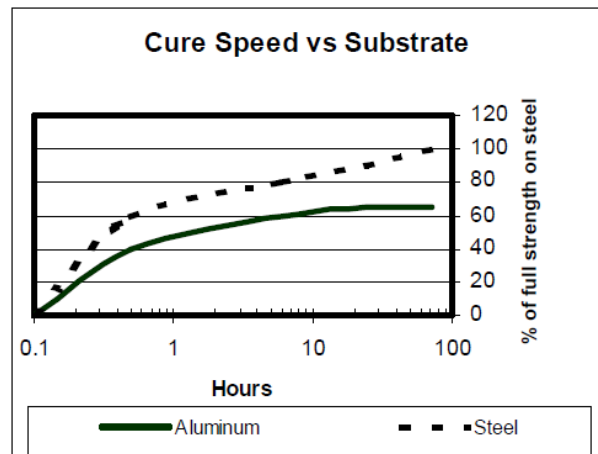
PHYSICAL PROPERTIES

	Typical value
Chemical Type	Dimethacrylate Ester
Appearance	Acrid Red Gel
Specific Gravity @ 27 °C	1.08
Viscosity cP BrookField	288,000
HBT, TC @ 2.5 rpm	
@ 20 rpm	50,000
Flash Point (TCC), °C	>93
Gap Fill	0.5 mm diametral (primed) 0.25 mm diametral (un-primed)
Shear strength	20 MPa
Cure Speed (Hours)	1 - 12 (un-primed) 15 minutes - 2 (primed)

TYPICAL CURING PERFORMANCE

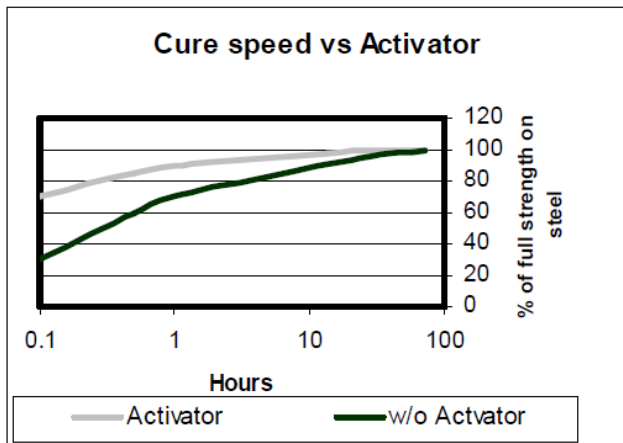
Cure speed vs. substrate

The rate of cure will depend on the substrate used. The graph below shows the shear strength developed with time on grit blasted steel lap shears compared to different materials and tested according to ASTM D 1002.



Cure speed vs. activator

Where cure speed is unacceptably long, or large gaps are present, applying activator to the surface will improve cure speed. The graph below shows the shear strength developed with time using Surface Prep Activator on grit blasted steel lap shears and tested according to ASTM D 1002.



NOTE

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Chemical / Solvent Resistance

Aged under conditions and tested at 22°C.
Substrate: Grit blasted steel lap sheers.

	% Initial Strength retained after time	
	Temp	500hr 1000hr
Hot aged	150 °C	155%
Motor oil	125 °C	150%
Antifreeze	87 °C	60%
Gasoline	23 °C	95%
Trans Fluid	23 °C	95%

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 with such substrates.

Part Number	Container Size
51050A	50 ml Bottle

STORAGE

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8 °C to 28 °C unless otherwise labelled. 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