



ITW Performance Polymers
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Technical Data Sheet

Pneumatic/Hydraulic Sealant

INDUSTRIAL

PRODUCT DESCRIPTION

S.I.N.: 834-300

Permatex® Pneumatic/Hydraulic Sealant is a single component, high viscosity anaerobic pipe sealant material. The product cures when confined in the absence of air between close fitting metal surfaces. Permatex® Pneumatic/Hydraulic Sealant locks and seals high-pressure fluid power systems with tapered fittings.

PRODUCT BENEFITS

- Contains no fillers or particles
- Will not contaminate fluid systems
- Will not foul valves
- Will not clog fine filters and screens
- Has excellent solvent resistance
- Easy disassembly

TYPICAL APPLICATIONS

- Hydraulic and pneumatic line fittings
- Brake fittings
- Transmission fluid fittings
- PTO fittings
- Air conditioning fittings
- Servomechanisms

DIRECTIONS FOR USE

1. Shake container well before using.
2. Clean surfaces to be sealed with Permatex® Brake & Parts Cleaner.
3. Twist off white overcap and snip nozzle to desired size opening.
4. Apply sealant to male threads in a sufficient quantity to fill all engaged threads.
5. Assemble and wrench tighten.
6. This product works best in thin bond gaps.
7. Very large thread sizes may create large gaps that will affect cure speed and strength.
8. Parts may be returned to service in four (4) hours when cured at 75°F.

For Cleanup

1. Wipe off any material outside the joint with a dry cloth.
2. Clean hands with Permatex® Fast Orange® hand cleaner or soap and water.

PHYSICAL PROPERTIES

Chemical Type
 Appearance
 Odor
 Specific Gravity
 Viscosity (cP)
 Flash Point (T.C.C.) °F

Typical Value
 Methacrylate ester
 Purple liquid
 Acrid
 1.20
 14,000
 >200

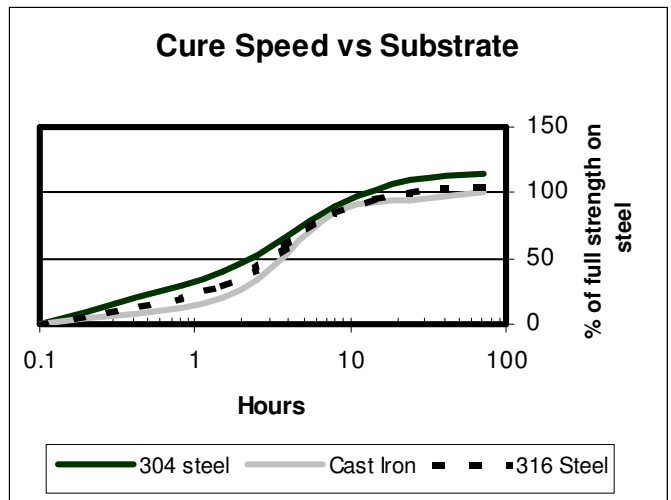
TYPICAL CURING PERFORMANCE

Cure speed vs. substrate

The rate of cure will depend on the material used. Permatex® Pneumatic/Hydraulic Sealant 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.

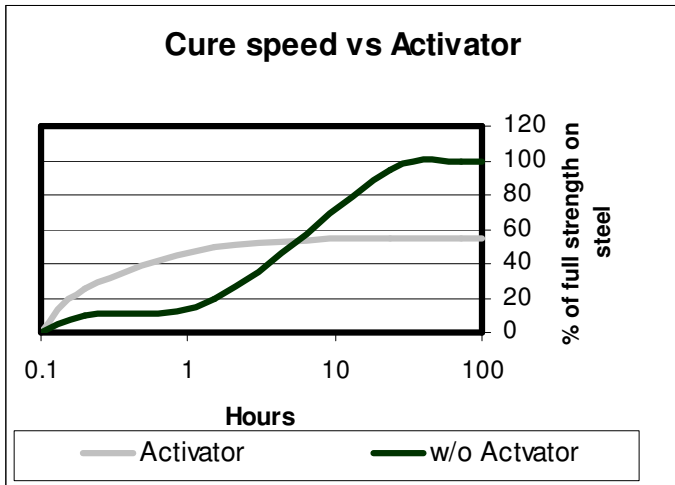
Active Metals	Inactive Metals
Soft Steel Iron	Bright Platings
Copper	Anodized Surfaces
Brass	Titanium
Manganese	Zinc
Bronze	Pure Aluminum
Nickel	Stainless Steel
Aluminum Alloy	Cadmium

The graph below shows the breakaway strength developed with time on 1/2" NPT fittings 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. The graph below shows the shear strength developed with time on 1/2" NPT fittings using Permatex® Surface Prep Activator.



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

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. **Permatex, Inc. specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Permatex, Inc. products and disclaims any liability for consequential or incidental damages of any kind, including lost profits.** This product may be covered by one or more United States or foreign patents or patent applications.

CURED INFORMATION

(Cured 24 hours @ 75°F)

Pressure Resistance (psi)	10,000
Temperature Range °F	-65 to +300
Breakaway torque (in.-lb.)	15
Seal to operating pressures	4 hours

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		210%
Motor oil(SL)	125°C		250%
Antifreeze	87°C	70%	
Gasoline	23°C	125%	
Ethanol	23°C	70%	
Acetone	23°C	60%	

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).

ORDERING INFORMATION

Part Number	Container Size
54550	50 ml. bottle