



ITW Performance Polymers  
30 Endicott Street  
Danvers, MA 01923  
(855) 489-7262

## Technical Data Sheet

# Permatex® Ultra Grey® Gasket Maker

AAM Revised 03/13

### PRODUCT DESCRIPTION

Permatex® Ultra Grey® Gasket Maker is a single component, room temperature vulcanizing gasketing compound designed to provide reliable “formed-in-place” gaskets for mechanical assemblies. This material cures on exposure to moisture in the air to form a tough, flexible, silicone rubber gasket. The product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. Designed to perform under the higher load conditions of engines with closely spaced bolt patterns (typically non-US designed), and maintains outstanding oil, water-glycol resistance. OEM Specified.

### PRODUCT BENEFITS

- High load resistance
- Improved oil resistance
- Sensor safe, non-corrosive
- Replaces most cut gaskets
- Can be used as a gasket maker or dressing
- Non-flammable, Non-toxic
- Low odor

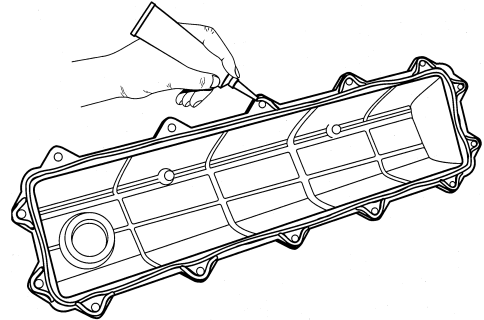
### TYPICAL APPLICATIONS

- Valve covers
- Transmission pans
- Oil pans
- Timing gear covers
- Differential covers

### DIRECTIONS FOR USE

#### For assembly as a form-in-place gasket

1. Remove all previous material from mating surfaces. Permatex® Gasket Remover or Silicone Stripper is recommended for most materials.
2. For best results, clean and dry all surfaces with a residue-free solvent, such as Permatex® Brake and Parts Cleaner.
3. Cut nozzle to desired bead size, 1/16” to 1/4” in diameter. A 1/8” bead is usually sufficient for most applications.
4. Remove cap, puncture tube or cartridge seal and attach extension nozzle.
5. Apply a continuous and even bead of silicone to one surface, first tracing the internal areas of the gasket configuration, then all surrounding bolt holes as shown below:



6. Assemble parts immediately while silicone is still wet. Secure or tighten to recommended torque specs.
7. Re-torque will not be necessary after the product has cured.

#### For assembly as a gasket dressing

1. Repeat steps 1 through 4 as in previous section.
2. Apply a thin film of silicone to one surface to be sealed.
3. Place the pre-cut gasket onto silicone film.
4. Apply a second thin film to pre-cut gasket surface.
5. Remove any excess and assemble parts immediately.  
*Note: Product is not recommended for use as a cylinder head gasket or head gasket sealant.*

#### Instructions for PowerBead™

1. Clean and dry all flange surfaces to be sealed.
2. Remove black cap from top of extension nozzle.
3. Turn nozzle extension one complete turn (360°) counterclockwise.
4. Depress finger trigger and apply a continuous 1/16 inch to 1/8 inch PowerBead™ to one surface.
5. Assemble parts immediately while silicone is still wet.
6. Finger tighten flange only until material begins to seep out the sides of the flange.
7. Allow to set for at least two hours and re-torque at least one quarter to one half turn.
8. For best results, allow to cure overnight.
9. To close, turn extension nozzle clockwise until tight (about one full turn). Wipe off excess material from nozzle and replace black cap.

#### Storage of Unused Product

1. Create a “Silicone Plug” by allowing excess material to extend beyond the extension nozzle or aerosol tip to cure, sealing and protecting the remaining product from moisture. For reuse, simply remove the cured product from the tip.
2. For PowerBead™ dispensers, you may store remaining

NOT FOR PRODUCT SPECIFICATIONS.  
THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.  
PLEASE CONTACT ITW PERFORMANCE POLYMERS TECHNICAL SERVICE DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS FOR YOUR SPECIFIC APPLICATION.  
ITW PERFORMANCE POLYMERS 30 ENDICOTT STREET, DANVERS, MA 01923 PHONE (855) 489-7262

product using either the above “silicone plug” method or using the included plastic cap.

**For Cleanup**

1. Remove uncured product from parts and hand-tools with Permatex® Fast Orange® Wipes or Fast Orange® Hand Cleaners. If skinned over, break film with a dry cloth to remove as much as possible. Remove the remaining material with Permatex® Gasket Remover.
2. Clean hands with a dry cloth or Permatex® Fast Orange® Hand Cleaner.

**PROPERTIES OF UNCURED MATERIAL**

	<b>Typical Value</b>
Chemical Type	Oxime silicone rubber
Appearance	Grey non-sag paste
Odor	Low odor
Specific Gravity	1.47
Extrusion rate @ 25°C, (grams/min)	>250
Flash Point °C (°F)	>93 (>200)

**TYPICAL CURING PERFORMANCE**

Permatex® Ultra Gray® Gasket Maker cures on exposure to moisture in the air. The product dries tack free in one hour and fully cures in 24 hours. Cure times will vary with temperature, humidity and gap. Longer cure times will apply to applications in low humidity conditions or colder temperatures.

**PERFORMANCE OF CURED MATERIAL**

After 7 days at 25°C (77°F), 50% Relative Humidity

	<b>Typical Values</b>	
Hardness (Shore A)	>45	
Elongation, %*	>120	
Tensile Strength, N/mm <sup>2</sup> (psi) **	>2.6	(>377)

\*Material will stretch 1.2 times its original length before breaking.

\*\*Amount of force required to break material.

**TYPICAL ENVIRONMENTAL RESISTANCE**

<b>Temperature Resistance Typical Values</b>		
Continuous, °C (°F)	-54 to 232	(-65 to 450)
Intermittent, °C (°F)	-54 to 260	(-65 to 500)

**Chemical / Solvent Resistance**

The product retains effective properties in contact with automotive fluids, such as motor oil, transmission fluids, alcohol and antifreeze solutions. Note: Not recommended for parts in contact with gasoline.

**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
82194	3.5 oz. tube, carded
82195	13 oz. cartridge

**OEM INTERCHANGE**

Manufacture	OEM Specifications Numbers	
Acura	8718-550030	
Chrysler	82300234	82300235
Daewoo Motors	AA1204020	
Honda	296380	08718-0001
	296381	HC2963817
Hyundai	0023113800	4C116-21000
Maxion	0710129	710129
Mitsubishi	MD997740	MD997110
Nissan	999MP-A7007	KPS51000150
Toyota	00001-01001	00001-01002
	00295-00102	00295-01208
	00295-01282	

**STORAGE**

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° and 28°C (46° and 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.