



(877) 376-2839

Product Description Sheet

Permatex® #599 Ultra Gray® Gasket Maker

PRODUCT DESCRIPTION

Permatex® Ultra Gray 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 foreign), and maintains outstanding oil, water-glycol resistance.

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

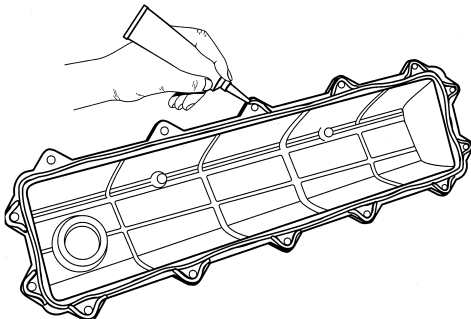
TYPICAL APPLICATIONS

- 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 is recommended for most materials, not for plastics or painted surfaces.
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. An 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 thru 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 to pre-cut gasket surface.
 5. Remove any excess and assemble parts immediately.
- Note: Product not recommended for use as a cylinder head gasket or head gasket sealant.*

For Cleanup

1. Allow 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. Remove uncured product from parts and hand-tools with a dry cloth, if skinned over, break film with a dry cloth to remove as much as possible, and remove the remaining material with Permatex® Gasket Remover as previously stated.
3. Clean hands with a dry cloth or Permatex® Fast Orange hand cleaner.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Oxime silicone rubber
Appearance	Grey non-sag paste
Odor	Low odor
Specific Gravity	1.5
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.

PERFORMANCE OF CURED MATERIAL

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

	Typical Values
Hardness (Shore A)	>45
Elongation, %*	>120
Tensile Strength, N/mm ² (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

Temperature Resistance	Typical Values
Continuous, °C (°F)	-54 to 316 (-65 to 600)
Intermittent, °C (°F)	-58 to 343 (-65 to 650)

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

OEM Interchange

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

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. For specific shelf-life information, contact your local Technical Service Center.

Note

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