

Automotive
Sealants**Dow Corning® 3-0115**
Automotive Sealant**FEATURES**

- Fluid resistance
- Blowout resistance
- Excellent unprimed adhesion
- Noncorrosive
- Low odor
- Low oil foaming

BENEFITS

- Provides an elastomeric seal that is resistant to most automotive powertrain fluids
- Withstands in-line pressure leak testing (blowout resistance) in assembly operations
- Exhibits excellent unprimed adhesion to properly prepared surfaces of metals and many plastics
- Provides low oil foaming properties when in contact with automatic transmission fluids and engine oils

COMPOSITION

- Alkoxy-cure, RTV silicone rubber

One-part, self-priming, noncorrosive, alkoxy-cure, RTV silicone rubber designed for automotive powertrain sealing applications.

APPLICATIONS

- Automotive flange sealing
- Where immediate pressure leak testing is required
- Engine and transmission oil pans and axle cover seals
- Coolant system seals
- Engine block main seals

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test – As Supplied ¹		Units	Result
CTM ² 0176	Consistency		High-viscosity, nonslumping paste Grey
CTM 0063	Color		
CTM 0364	Extrusion Rate, 3.2-mm (1/8-inch) nozzle at 0.63 MPa (90 psi)	g/minute	50
CTM 0098	Skin-Over Time	minutes	10
CTM 0095	Tack-Free Time	minutes	20-25
CTM 0084	Cure Rate, 3.2 mm (1/8 inch)	hours	24
CTM 0097	Specific Gravity		1.29
CTM 0087	Volatility	%	0.3

¹At 23°C (73°F) and 50% relative humidity.

²Properties were obtained using Corporate Test Methods (CTMs). CTMs correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

DESCRIPTION

Dow Corning® 3-0115 Automotive Sealant is a one-part, self-priming, noncorrosive, alkoxy-cure, RTV silicone rubber designed for automotive powertrain sealing applications. The sealant is specifically designed to provide an elastomeric seal that is resistant to most automotive powertrain fluids. Further, it is formulated to withstand in-line pressure leak testing (blowout resistance) in assembly operations.

This product exhibits excellent unprimed adhesion to properly prepared surfaces of metals and

many plastics. It is specially designed to have low oil foaming properties when in contact with automatic transmission fluids and engine oils.

HOW TO USE**Substrate Preparation**

Surfaces to be adhered or sealed should be free of dirt, oil, and other contaminants. A surface primer can be recommended for hard-to-bond surfaces, such as some plastics. Contact your Dow Corning representative for specific recommendations.

TYPICAL PROPERTIES *cont.*

Test – As Cured—Physical³		Units	Result
ASTM D 2240	Durometer, Shore A		50
ASTM D 412	Tensile Strength	MPa (psi)	2.80 (405)
ASTM D 412	Elongation	%	375
	Heat Resistance, 240 hours at 120°C (248°F), change in durometer	%	-9
ASTM D 816	Lap Shear Adhesion, 12.7 x 25.4 x 1 mm (0.5 x 1 x 0.040 inch), 2024 aluminum	MPa (psi)	2.4 (350)
	1010 steel	MPa (psi)	2.3 (330)
Test – As Cured—Fluid Immersion Resistance³			
<i>Mobil</i> ⁴ 5W30 SJ Oil, 7 days at 150°C (302°F),			
	change in durometer	%	-54
	change in tensile	%	-5
	change in elongation	%	-10
	volume swell	%	29
Reference Oil 1006, 7 days at 150°C (302°F),			
	change in durometer	%	-60
	change in tensile	%	-20
	change in elongation	%	-7
	volume swell	%	38
<i>Dexron</i> ⁵ III Automatic Transmission Fluid, 7 days at 150°C (302°F),			
	change in durometer	%	-68
	change in tensile	%	-17
	change in elongation	%	16
	volume swell	%	24

³After curing 7 days at 23°C (73°F) and 50% relative humidity.

⁴*Mobil* is a registered trademark of Mobil Oil Corporation.

⁵*Dexron* is a registered trademark of General Motors Corporation.

How To Apply

Apply the sealant to the prepared surface in a continuous, uniform thickness. *Dow Corning* 3-0115 Automotive Sealant can be manually applied, but the use of automated dispensing equipment is highly recommended to obtain a uniform seal.

The sealant bead size to be specified is a function of the anticipated gap size for the part and the flange width. Consult your Dow Corning representative for equipment supplier and design recommendations.

Tack-Free Time and Handling Time

On exposure to moisture in the air, the surface of *Dow Corning* 3-0115 Automotive Sealant will skin over in about 10 minutes at room temperature and 50 percent relative humidity. To ensure integrity of the seal between mating parts, assemble the parts before the sealant skins over. Higher relative humidities will accelerate this cure time.

Cure

Curing continues inward from the surface. In 24 hours at room temperature and 50 percent relative humidity, a fully exposed section of *Dow Corning* 3-0115 Automotive Sealant will cure to a depth of

3.2 mm. Lower relative humidities will extend this cure time. If both bonded members are impermeable to moisture, as in the case of two metal plates, cure time will depend on the thickness of *Dow Corning* 3-0115 Automotive Sealant and the area under the joint. The larger the unexposed area, the longer the cure time. For shorter cure time and maximum bond strength, keep the area enclosed by the joint to a minimum. For best results, a metal-to-metal bond should not overlap more than one inch.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY WRITING TO DOW CORNING CUSTOMER SERVICE, OR BY CALLING (517) 496-6000.

USABLE LIFE AND STORAGE

When stored at or below 32°C (90°F), *Dow Corning* 3-0115 Automotive Sealant has a shelf life of 18 months from the date of manufacture. Since this material cures by reaction with moisture in the air, keep the container tightly sealed when not in use.

PACKAGING

Dow Corning 3-0115 Automotive Sealant is available in 10.3-ounce (305-mL) cartridges, 4.5-gallon (17-L) pails, and 45-gallon (170-L) drums.

LIMITATIONS

Do not use for applications where the product will be in constant contact with gasoline, synthetic fuels, or solvents. Do not use in totally confined applications; sealant must have exposure to moisture from the atmosphere to cure.

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

WARRANTY INFORMATION—PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that *Dow Corning's* products are safe, effective, and fully satisfactory for the intended end use.

Dow Corning's sole warranty is that the product will meet the *Dow Corning* sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. *Dow Corning* specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless *Dow Corning* provides you with a specific, duly signed endorsement of fitness for use, *Dow Corning* disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

