

PRODUCT DESCRIPTION

LOCTITE® Product 5389A/B is a two part fast curing RT silicone adhesive/sealant which exhibits excellent performance in automotive fluid environments.

TYPICAL APPLICATIONS

Designed for pre-applied applications e.g. automotive gaskets likely to be exposed to severe operating environments like oil and water. Also formed-in-place gasketing applications where rapid cure is required.

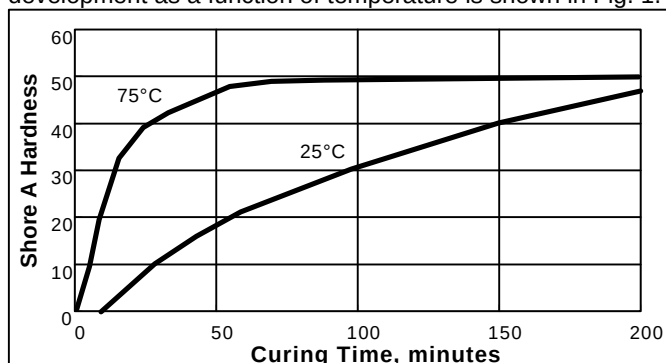
PROPERTIES OF UNCURED MATERIAL

	Part A	Part B
Chemical Type	Acetic	Silicone
Appearance	Cream	Black
Specific Gravity @ 25°C	1.1	1.4
Viscosity @ 25°C	Paste	Paste
Extrusion Rate gm/min: (3mm nozzle, 6 bar, 25°C)		
Flash Point (TCC), °C		

TYPICAL CURING PERFORMANCE

Skin Over Time

The surface of this adhesive becomes dry to touch within 5 minutes at 23±2°C, 50±5%RH. The Shore A hardness development as a function of temperature is shown in Fig. 1.



TYPICAL PROPERTIES OF CURED MATERIAL

Max. temp. °C at which product retains 50% of RT strength after 72hrs	275
1000hrs	220

Electrical Properties

Dielectric constant, ASTM D150, 1MHz	3.2
Dielectric strength, ASTM D419, kV/mm	18
Volume resistivity, ASTM D257, Ω.cm	2 x 10 ¹⁵

PERFORMANCE OF CURED MATERIAL

(After 7 days @ 23±2°C, 50±5% RH 2mm film)

Tensile strength, MPa	4.0
Elongation to break, %, ASTM D412:	150
Hardness, Shore A, ASTM D2240	50
Adhesion:	
Shear Strength on sandblasted Aluminium 1mm thick bondline	
Cured 1 day 23°C & 50%R.H.	2.3*
Cured 3 days 23°C & 50%R.H.	2.7*
Cured 7 days 23°C & 50%R.H.	2.7*

*Cohesive Failure

Compression Set

The compression set properties were measured on 1mm films prepared at Ambient Temperature (ASTM D395 #1 Method B).

Cure time	Compressed by 25% for 3 days, °C	Compression set
1 day	125	50%
7 days	125	35%
7 days	150	45%

Environmental Resistance

Duration of immersion in oil at 150°C	Volume swelling %	Shore A hardness points	Modulus at 100% elong. MPa	Tensile Strength MPa	Elongation at break %
Control	0	53	2.5	4.0	200
ASTM 2	7	48	2.5	3.0	160
15W40	14	42	2.4	3.4	160

Resistance to anti-freeze

Tests carried out after 7 days in boiling anti-freeze.

Immersion in anti-freeze @ 105°C	Shore A hardness points	Modulus @ 100% elongation MPa	Tensile strength MPa	Elongation at break %
After 72 hrs	42	NA	2.1	60

GENERAL INFORMATION

For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).

Directions for use

Product is available in industrial kits with packages of A&B product matched for accurate mixing on standard mixing equipment. Please contact local Technical Service Centre for specific equipment recommendations.

Product 5389A/B should be applied as a bead to clean surface. When used as a pre-applied gasketing material this bead should be allowed to cure fully before being subjected to service loads. If Product 5389A/B is being used as a rapid curing adhesive/sealant, the joint should be assembled within 5 minutes. Pressure should be applied to spread the adhesive out and fill the joint completely. The bond should be allowed to fully cure before subjecting to heavy service loads.

Storage

Product shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8°C to 28°C (46°F to 82°F) 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. For further specific shelf life information, contact your local Technical Service Centre.

NOT FOR PRODUCT SPECIFICATIONS.
THE TECHNICAL DATA CONTAINED HEREIN ARE INTENDED AS REFERENCE ONLY.
PLEASE CONTACT LOCTITE CORPORATION QUALITY DEPARTMENT FOR ASSISTANCE AND RECOMMENDATIONS ON SPECIFICATIONS FOR THIS PRODUCT.
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Note

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