

BOSS® 320 Self-Leveling Silicone Sealant

TYPICAL PROPERTIES

Uncured

| | |
|-------------------------------|-----------------------|
| Colors | White and Translucent |
| Consistency | Flowable Liquid |
| Viscosity, poises | 250 |
| Specific Gravity | 1.05 |
| Tack Free Time, minutes | 30 |

Cured – Mechanical

| | |
|--|---------|
| Hardness, Shore A | 25 |
| Tensile Strength, kg/cm ² (lb/in ²) | 25(350) |
| Elongation, % | 350 |
| Shear Strength, kg/cm ² (lb/in ²) | 11(150) |
| Peel Strength, kg/cm (lb/in) | 3(15) |

Cured† – Electrical

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|--|----------------------|
| Dielectric Strength, kv/mm (v/mil) | 20(500) |
| Dielectric Constant @ 60 Hz | 2.8 |
| Dissipation Factor @ 60 Hz | 0.0026 |
| Volume Resistivity, ohm-cm | 3 X 10 ¹⁵ |

Cured – Thermal

| | |
|--|--|
| Brittle Point, | <-60°C (<-75°F) |
| Thermal Conductivity, cal/sec, cm ² , °C/cm | 0.0005 |
| (Btu/hr, ft ² , °F/ft) | (0.12) |
| Coefficient of Expansion, cm/cm, °C (in/in, °F) | <27 X 10 ⁻⁵ (<15 X 10 ⁻⁵) |

*Information on this data sheet is subject to change without notice and should not be used for writing specifications.
For additional information on specific applications, contact Accumetric, LLC



USES

- Potting electrical terminals
- Coating mechanical devices
- Sealing ammunition fuses
- Formed-in-place gaskets for gear boxes, compressors, pumps

DESCRIPTION

BOSS® 320 Self-Leveling Silicone Sealant is a free flowing, self-leveling, one component material. Its low viscosity allows it to fill minute crevices and voids in potting and sealing applications. Supplied ready-to-use, this material cures at room temperature to a tough, rubbery solid. It adheres well to most common substrates including many metals, glass, most woods, ceramics and various plastics. **BOSS® 320** resists weathering, moisture, vibration, ozone, and temperature extremes. In addition, it stays flexible from -85°F to 450°F (-65°C to 232°C).

SPECIAL FEATURES

- Free flowing
- Self-Leveling
- Low viscosity
- Good adhesion to a wide variety of substrates
- Contains no solvents

HOW TO USE

BOSS® 320 Self-Leveling Silicone is easy to use. It pours readily from its container for dip, brush or spray application and cures upon contact with the moisture in the air to form a tough, flexible silicone rubber.

Cure Time

BOSS® 320 begins to cure upon exposure to moisture in the air. The cure progresses inward from the surface. At 75°F (24°C) and 50% relative humidity, sealant forms a tack-free skin within an hour.

Material beneath the tack-free skin continues to cure and, in about 24 hours at room temperature, sections 1/8" thick or less cure to a rubber with a Shore A durometer hardness of about 25.

Cure time is extended as the thickness of the rubber increases. A 1/2" cross section, for example, may require 3 or 4 days for complete cure. However, the outer 1/8" will cure in about 24 hours.

In applications where **BOSS® 320** Self-Leveling Silicone may be partly or totally confined during cure, the time required for proper cure is generally lengthened by the degree of confinement. It is possible, with absolute confinement, that cure will not be completed. Metal-to-metal bonds should not overlap more than one inch. Every application involving confinement during cure should be thoroughly tested before commercialization.

The odor given off during cure is due to the liberation of acetic acid. This odor disappears as the cure progresses, and is not detectable after the cure is complete.

Bonding

BOSS® 320 bonds to most materials but will NOT adhere to polyethylene and certain plastics and organic rubbers which exude fluids such as plasticizers. Bond strength varies accordingly to the substrate. Stronger bonds are obtained by preparing surfaces with prime coat. For best results:

1. Thoroughly clean and degrease metal and plastic surfaces, then rinse all surfaces, except plastic, with acetone. Rubber surfaces should be roughened with sandpaper, then wiped with acetone. Follow the precautions given on solvent container label.
2. For stronger, more uniform bonds, apply a thin film of A-120 prime coat to all surfaces except rubber and silicone rubber. Allow to air-dry for 30 to 45

minutes at room temperature. (Full instructions are provided with the prime coat.) CAUTION: A-120 prime coat is flammable and has no FDA status. Keep away from heat and open flames. Use only with adequate ventilation.

3. Apply **BOSS® 320** to the prepared surface in a uniform thickness. Best adhesion is obtained with a 15 to 30 mil glue line. In those cases where the adhesive is used between surfaces, put the second surface in place, using enough pressure to displace the air but not the adhesive.
4. Let the unit stand undisturbed at room temperature to cure.

PACKAGING

BOSS® 320 Self-Leveling Silicone is available in 10.3 fl. oz. cartridges and 5 gallon pails. Other sizes available upon request.

STORAGE AND SHELF LIFE

When stored in original unopened containers at or below 90°F (32°C), **BOSS® 320** Self-Leveling Silicone Sealant has a shelf life of 12 months from date of shipment. Containers should always be kept sealed when not in use. After a container has been opened and the entire contents have not been used, extrude 3/8" of material past nozzle opening. When ready to use pull out cured plug. Sealant is ready to use.

CAUTION

DIRECT CONTACT OF UNCURED SEALANT IRRITATES EYES AND MAY IRRITATE SKIN. OVEREXPOSURE TO VAPOR MAY IRRITATE EYES, NOSE, AND THROAT. Avoid eye and skin contact. Use with adequate ventilation. Do not handle contact lenses with sealant on hands. IN CASE OF EYE CONTACT, flush eyes with water for 15 minutes. Obtain medical attention. IN CASE OF SKIN CONTACT, remove from skin and flush with water. Sealant releases acetic acid (vinegar-like odor) during cure. KEEP OUT OF THE REACH OF CHILDREN.

SHIPPING LIMITATIONS

None

USERS PLEASE READ

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a particular use or purpose are made.

It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application.

Likewise, if the application, product specifications or manner in which our products are used requires government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

The supplier warrants only that its products will meet its specifications. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. The user's exclusive remedy and the supplier's sole liability is limited to refund of the purchase price or replacement of any product shown to be otherwise than as warranted. The supplier will not be liable for incidental or consequential damages of any kind.

Suggestions of uses should not be taken as inducements to infringe any patents.

MADE IN U.S.A.

BOSS® PRODUCTS

Accumetric, LLC
350 Ring Road
Elizabethtown, KY 42701
800-928-BOSS(2677)
270-769-3385 FAX 270-765-2412
www.accumetricinc.com