



BOSS[®] PRODUCTS



TECHNICAL DATA SHEET

BOSS[®] 376 HVAC/R Hi-Temp Red Silicone Sealant

TYPICAL PROPERTIES

As supplied

Color Red
Flow/Slump NIL
Extrusion Rate (1/8" orifice, 90 psi) 335 g/min.

Cure Characteristics – exposed to air, 77°F (25°C) and 50% RH

Skin-over time 5-8 min.
Tack-free time 20 min.
Cure time (1/8" thickness) 24 hrs.

As Cured –after 72 hours at 77°F (25°C) and 50% RH

Durometer, shore A 30 points
Tensile strength 325 psi
Elongation 475%
Unprimed adhesion (most substrates*) good
Special Properties performs at temperatures
ranging from -85°F to 500°F (-65°C to 260°C)

*Optimum adhesion is obtained in 7 to 10 days curing time.

Use A-120 prime coat if increased adhesion is required.

*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

- Sealing and encapsulating heating elements in appliances
- Stove and furnace vent pipes
- Moving oven belts
- Industrial ovens
- Bag filters on smoke stacks
- Other critical bonding, sealing, potting, encapsulating and protective coating where parts must perform at high temps

HOW TO USE

Applying the Material: Tack-Free Time

BOSS[®] 376 HVAC/R Hi-Temp Red Silicone Sealant is supplied ready-to-use. Under pressure it flows readily from its container. The paste-like consistency makes it easy to work; a spatula or wooden paddle can be used for tooling the surface.

DESCRIPTION

BOSS[®] 376 HVAC/R Hi-Temp Red Silicone Sealant is a one-part, non-slumping paste that cures to a tough, rubbery solid at room temperature on exposure to water vapor in the air. This silicone product was formulated to perform at temperatures ranging from -85°F to 500°F (-65°C to 260°C). It can be used for numerous sealing and bonding applications.

The cure progresses inward from the surface. At conditions of at least 75°F (24°C) and 50% relative humidity, the sealant forms a tack-free skin within 15 minutes. Tooling is not practical after this skin begins forming and should be completed within 5 to 10 minutes of application, even though this may require alternate periods of applying and tooling. Likewise, if masking tape has been used to mark off the area, it should be removed before the tack-free skin forms.

Cure Time

Cure time is affected by relative humidity, degree of confinement and cross-sectional thickness of the sealant. Sections up to 1/8" thick become rubbery solids in about 24 hours at 77°F (25°C) and 50 percent relative humidity. Less moisture content reduces it slightly. In 24 hours, sections up to 1/8" thick cure to a rubber when a Shore A durometer hardness levels off to about 32 points.

In applications where **BOSS® 376** 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. The result is the softening of the sealant at elevated temperatures. Metal-to-metal bonds should not overlap more than one inch. Every application involving confinement during cure should be thoroughly tested before commercialization.

Curing time increases with the thickness of the sealant. A 1/2" cross-section, for example, may require 3 or 4 days for complete solidification. However, the cure will have penetrated the outer 1/8" in about 24 hours.

Adhered to glass, metal or most woods, **BOSS® 376** HVAC/R Hi-Temp Red Silicone Sealant has a typical peel strength of 20 pounds per inch after 72 hours at room temperature.

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

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. Apply **BOSS® 376** 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.

3. Let the unit stand undisturbed at room temperature to cure.

SPECIFICATIONS

BOSS® 376 meets performance requirements for the following: FDA/USDA requirements for use in establishments operating under Federal Meat and Poultry Inspection Program. When cured and washed, ingredients remaining or which could migrate to food are on FDA Regulation No. 21 CFR 177.2600. Meets Federal Specifications TT-S-001543A, TT-S-00230C, ASTM C920-86 and NSF Standard 51.

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.

STORAGE AND SHELF LIFE

When stored in the original unopened containers at or below 90°F (32°C), **BOSS® 376** HVAC/R Hi-Temp Red Silicone Sealant has a shelf life of 12 months from date of shipment. In Countries where high heat and humidity are a factor, special precautions must be taken. Store product in a covered, well-ventilated warehouse and avoid excessive heat conditions. Storage in high heat, high humidity conditions may reduce shelf life by up to 30%. Rotation of stock is an absolute necessity. Cartons should always be stacked upright with the nozzle tip pointed upwards. DO NOT stack cartons on their side. **NEVER** stack cartons more than 8 high. DO NOT store within 1 meter (4 feet) of roofline of the warehouse or storage building.

PACKAGING

BOSS® 376 HVAC/R Hi-Temp Red Silicone Sealant is available in standard caulking cartridges. Other sizes available upon request.

SHIPPING LIMITATIONS

None.

Reactive VOC 29 g/l (<3% wt)

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 users exclusive remedy and the suppliers 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.

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