

# BOSS<sup>®</sup> 312 100% Silicone HVAC/R

### TYPICAL PROPERTIES

#### Uncured

Colors ..... clear, white, aluminum, bronze and almond  
Slump ..... NIL  
Tack-Free Time at 77°F (25°C) and 50% RH..... 10-20 min.

#### Cured – Physical

**7 Days at 77°F (25°C) and 50% RH (1/8" thickness)**

Elongation ..... 500  
Durometer, Shore A ..... 30  
Tensile Strength ..... 350 psi  
Movement Capacity ..... ±25%  
Extrusion Rate ..... 400 grams/min.  
Service Temperature..... -40°F to 400°F  
Application Temperature ..... -35° to 140°F

\*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 Soudal.



### DESCRIPTION

**BOSS<sup>®</sup> 312 100% Silicone HVAC/R** is a premium one-part acetoxy cure adhesive sealant which can be used to meet a variety of sealing and gasketing needs. This product cures to silicone rubber and adheres to glass, wood, metal, porcelain, ceramic tile, painted surfaces and rubber. A primer may be required for optimum adhesion to some surfaces.

**BOSS<sup>®</sup> 312 100% Silicone HVAC/R** has good resistance to weathering, vibration, moisture, ozone and extreme temperatures. It may be applied in sub-zero weather without loss of extrusion or physical property characteristics. Fully cured **BOSS<sup>®</sup> 312** can be used for extended periods at temperatures up to 400°F (204°C).

### USES

- Seal heating, ventilating or air conditioning duct work
- Sealing cracks or gaps around windows, vents, ducts, fixtures and lights
- Seal leaks in gutters, downspouts, ducts and piping
- Seal cracks in interior walls and ceilings, door joints and fixtures
- Seal out water from compartments in machinery or appliances
- Seal around freezer doors and windows to prevent frost and condensation from forming
- Seal electrical connections and boxes to waterproof
- Seal joints and cracks in the roofs and sides of truck trailers
- Seal stainless steel food service equipment
- Seal electrical controls, instruments, motors, fans and machinery to keep out dust, dirt and moisture

- Make quick sheet metal patches
- Seal wall-floor and wall-ceiling seams
- Seal windows in oven doors and flues on gas appliances, flanged pipe joints and access doors
- Adhering auto and appliance trim, including metal, fabric and fabric-backed plastics
- Sealing trailers, truck cabs
- Filleting and caulking joints in sheet metal stacks, ductwork and equipment housings
- Bonding gaskets in heating and refrigeration units
- Sealing marine cabins and windows
- Antiabrasion coating
- Bonding signs and sign letters
- Attaching screwless brackets or nameplates and tacking plastic materials to metal
- Formed-in-place gasket for gear boxes, compressors and pumps



## HOW TO USE

### **Applying the Material: Tack-Free Time**

**BOSS® 312** 100% Silicone HVAC/R 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.

The cure progresses inward from the surface. At conditions of at least 77°F (25°C) and 50% relative humidity, the sealant forms a tack-free skin within 20 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 room temperature and 20 percent relative humidity. Less moisture content reduces it slightly.

### **Sealing**

Using **BOSS® 312** 100% Silicone HVAC/R in sealing applications follows approximately the same step-by-step procedures as outlined for bonding applications. After preparing the surface and priming where required, the sealant is applied by forcing it in the joint or seam to obtain full contact between sealant and surfaces.

## SPECIFICATIONS

**BOSS® 312** meets performance requirements of the following specifications:

- NSF Standard 51
- UL Recognized
- FDA/USDA requirements for use establishments operating under Federal Meat and Poultry Inspection Program. When cured and washed, ingredients remaining or which could migrate to food are listed on FDA Regulation No. 21 CFR 177.2600
- TT-S-001543A
- TT-S-00230C
- ASTM C920 Type S, Grade NS, Class 25, Use G,A,M, and O

## CLEAN UP

Uncured sealant can be easily removed using a solvent such as alcohol or acetone. For an environmental and health friendlier choice use **BOSS®** Biggie Wipes. If the sealant is cured it must be removed mechanically by cutting and scraping.

## PACKAGING

**BOSS® 312** 100% Silicone HVAC/R is available in standard caulking cartridges and 4.5 gallon pails. Other sizes available upon request.

## STORAGE AND SHELF LIFE

When stored in the original unopened containers at or below 90°F (32°C), **BOSS® 312** 100% Silicone HVAC/R 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.

## 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 only outdoors or in a well ventilated area. 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.** For safe handling information on this product, consult the Safety Data Sheet (SDS).

## COLORS

**BOSS® 312** is available in a variety of colors including clear, white, aluminum, bronze and almond.

## SHIPPING LIMITATIONS

None.

Reactive VOC 23 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.

**Non-warranty:** Because the storage, handling and application of the material is beyond Soudal's control, we can accept no liability for the results obtained. Soudal's sole limited warranty is the product meets the manufacturing specifications in effect at time of shipment. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. Soudal will not be liable for incidental or consequential damages of any kind. The exclusive remedy for breach of such limited warranty is a refund of purchase price or replacement of any product shown to be other than as warranted.

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

MADE IN U.S.A.

## **BOSS® PRODUCTS**

### **Soudal**

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