

# Product Information

## Silicone Sealants

**DOW CORNING**

# Dow Corning® 733 Glass & Metal Sealant

## FEATURES

- Unprimed adhesion to cleaned substrates including glass, metals and plastics
- Good resistance to weathering, vibration, moisture, ozone and extreme temperatures
- Sustained flexibility at temperatures from -57 to 177°C (-70 to 350°F); intermittent to 204°C (400°F)
- Available in a variety of colors including clear, white, black and aluminum

## COMPOSITION

- One-part silicone rubber, nonslumping paste

## APPLICATIONS

Dow Corning® 733 Glass & Metal Sealant is used for OEM bonding and sealing applications, including:

- Appliances
- Heavy equipment
- Marine equipment
- Recreational vehicles

## TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Test	Property	Unit	Result
<b>As Supplied</b>	Standard Colors		Clear, white, black and aluminum
	Specific Gravity at 25°C (77°F)		1.03
	Extrusion Rate (3.18-mm orifice, 90 psi air pressure)	g/min	350
	Flow Rate (sag or slump on 3.18 x 101.6 mm bead)	mm	Nil
	Tack-Free Time at 25°C (77°F) and 50% RH	minutes	15
	Cure Time at 25°C (77°F) and 50% RH, (3.18-mm thickness)	hours	24
<b>Physical Properties<sup>1</sup> – As Cured 3 Days at 25°C (77°F) and 50% RH</b>			
ASTM D 2240	Durometer Hardness, Shore A	points	25
ASTM D 412	Tensile Strength, Die C	MPa (psi)	2.3 (335)
ASTM D 412	Elongation, Die C	percent	500
<b>Physical Properties – As Cured 2 Days at 25°C (77°F) and 50% RH</b>			
	Adhesion, 180° peel strength		
	Stainless Steel	pli	20
	Matte Finish Steel	pli	20
	Aluminum	pli	21

<sup>1</sup>Measured on 1.91 mm-thick (0.075-inch) slabs.

## DESCRIPTION

Dow Corning® 733 Glass & Metal Sealant is a paste-like, one-component material that cures to a tough, rubbery solid upon exposure to moisture in the air. Because it does not flow, this sealant can be applied overhead or on sidewall joints and surfaces without sagging, slumping or running off. Dow Corning 733 Glass & Metal Sealant is specially formulated to

provide good adhesion to various substrates.

## LISTINGS/SPECIFICATIONS

- Recognized under UL 94 HB
- Complies with FDA Regulation 21 CFR 177.2600 for incidental contact with food.

## HOW TO USE

### Estimating

For estimating sealant requirements, multiply gallons by 128 fluid ounces and divide by the cartridge size.

Example: 11 gallons required x 128 fluid ounces = 1408 divided by a 10.1 fluid-ounce cartridge = 139 cartridges required.

### Application

*Dow Corning 733 Glass & Metal Sealant* is supplied in ready-to-use form. It extrudes readily from its container under pressure. The paste-like consistency makes it easy to work; a spatula or paddle can be used to tool the surface.

### Bonding

Thoroughly clean and degrease metal and plastic surfaces using *Dow Corning*<sup>®</sup> brand OS (ozone-safe) Fluid or other suitable solvent. Rubber surfaces should be roughened with sandpaper, then wiped with acetone. Follow precautions given on the solvent container label.

Apply *Dow Corning 733 Glass & Metal Sealant* to the prepared surface in a uniform thickness. Then, let the unit stand undisturbed at room temperature to cure.

### Sealing

The use of *Dow Corning 733 Glass & Metal Sealant* in sealing applications follows approximately the same step-by-step procedures outlined for bonding applications. After preparing the surfaces and priming where required, the sealant is applied by forcing it into the joint or seam to obtain full contact between the sealant and the surface.

### Tack-Free Time

Cure progresses inward from the surface.

At conditions of at least 25°C (77°F) and 50 percent relative humidity, a tack-free skin forms within 10 to 15 minutes.

Tooling should be completed within 5 to 10 minutes of application. Alternate periods of application and tooling may be required. If masking tape is used to mask an area, it must 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-inch thick become rubbery solids in about 24 hours at room temperature and 50 percent relative humidity. Less humidity increases cure time slightly.

In applications where *Dow Corning 733 Glass & Metal Sealant* may be partially or totally confined during cure, the time required for proper cure is generally lengthened by the degree of confinement. It is possible that with absolute confinement, cure will not be completed. Every application involving confinement during cure should be thoroughly tested before use.

Curing time increases with the thickness of the sealant. A 1/2-inch cross section, for example, may require 7 to 14 days for complete solidification at standard conditions. However, the cure will have penetrated the outer 1/8 inch in about 24 hours.

An odor caused by the liberation of acetic acid is given off during cure. This odor disappears as the cure progresses and is not detectable after cure is complete.

## 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 CALLING YOUR GLOBAL DOW CORNING CONNECTION.

## USABLE LIFE AND STORAGE

Containers of *Dow Corning 733 Glass & Metal Sealant* should always be kept sealed when not in use. After a container has been opened, a plug of cured material may form in the nozzle or tube tip during storage. When ready to reuse, unscrew the nozzle and remove the cured plug. The remaining sealant is ready to use.

When stored in original unopened containers at or below 32°C (90°F), *Dow Corning 733 Glass & Metal Sealant* has a shelf life of 27 months from date of manufacture. Refer to product packaging for "Use By" date.

## PACKAGING INFORMATION

*Dow Corning 733 Glass & Metal Sealant* is available in 300-mL (10.1-fl oz) cartridges and 17.7-kg (4.5-gal) pails, net weight.

## LIMITATIONS

*Dow Corning 733 Glass & Metal Sealant* is not recommended:

- On surfaces to be painted; paints do not adhere well to sealant
- On or near sensitive metals
- On concrete or masonry
- For underwater structural or adhesive applications
- In totally confined areas; atmospheric moisture is required for cure
- On some plastics; may cause stress cracks – test before use

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

## **SHIPPING LIMITATIONS**

NONE.

## **HEALTH AND ENVIRONMENTAL INFORMATION**

To support Customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our Web site, [dowcorning.com](http://dowcorning.com) or consult your local Dow Corning representative.

## **LIMITED 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 our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the 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.

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