

Product Information

Silicone Sealants

DOW CORNING

Dow Corning® 734 Flowable Sealant

FEATURES

- Self-leveling
- Cures at room temperature on exposure to moisture in air

COMPOSITION

- One-part RTV silicone rubber

Free-flowing, self-leveling, low viscosity sealant containing no solvent

APPLICATIONS

Dow Corning® 734 Flowable Sealant is primarily used in applications where a free-flowing, one-part sealant is needed. Applications include:

- Coating mechanical devices
- Making formed-in-place gaskets
- Sealing ammunition fuses

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Method	Test	Unit	Result
As Supplied			
	Colors		White, clear
	Specific Gravity at 25°C (77°F)		1.03
	Consistency		Pourable
	Viscosity	poise	430
	Solids Content	percent	95
	Extrusion Rate (3-mm [1/8-inch] orifice at 90 psi air pressure)	grams per minute	430
As Cured¹			
	Skin-Over Time	minutes	10
	Tack-Free Time	minutes	15
	Cure Time (3-mm [1/8-inch] thickness)	hours	24
As Cured – Physical²			
ASTM D 2240	Durometer Hardness, Shore A	points	28
ASTM D 412	Tensile Strength	MPa (psi)	1.55 (225)
ASTM D 412	Elongation	percent	300
As Cured – Electrical			
	Volume Resistivity at 23 ± 2°C (73.4 ± 3.5°F)	ohm/cm	1x10 ¹⁵
	Dielectric Constant at 100 Hz		2.7
	100 kHz		2.7
	Dissipation Factor at 100 Hz		0.00034
	100 kHz		0.00019
	Dielectric Strength at 25°C (77°F), 75-mil thickness, volts/mil		435

¹Exposed to air at 25°C (77°F) and 50 percent relative humidity.

²Measured on 1/8-inch-thick slabs, exposed to air at 25°C (77°F) and 50 percent relative humidity for 72 hours.

DESCRIPTION

Dow Corning 734 Flowable Sealant is a self-leveling, one-component silicone RTV material. Its low viscosity allows it to fill many crevices and voids in potting and sealing applications.

Supplied ready to use in white or clear formulations, this material cures at room temperature to a tough, rubbery solid. It adheres to many common substrates, including metals, ceramics and various plastics.

Dow Corning 734 Flowable Sealant resists weathering, moisture, vibration, ozone and temperature extremes. In addition, it stays flexible from -65 to 177°C (-85 to 350°F); intermittent to 204°C (400°F).

LISTINGS/SPECIFICATIONS

- When fully cured and washed, meets the requirements of FDA Regulation No. 21 CFR 177.2600 for incidental contact with food, subject to end-use compliance with any applicable total extractives limitations and can be used in federally inspected meat and poultry plants
- Listed by the National Sanitation Foundation under Standard 51
- UL listed for service to 150°C (302°F) where elongation is not essential
- Designed to meet the requirements of MIL-A-46106

HOW TO USE

Dow Corning 734 Flowable Sealant is easy to use. It pours readily from its container for dip, brush or spray application.

Cure Time

Dow Corning 734 Flowable Sealant begins to cure upon exposure to moisture in the air. The cure progresses inward from the surface. At 24°C (75°F) and 50 percent relative humidity, the sealant forms a tack-free skin in about 15 minutes.

Material beneath the tack-free skin continues to cure. Curing time is extended as the thickness of the rubber increases.

In applications where *Dow Corning* 734 Flowable Sealant is partly confined during cure, the time required for proper cure is lengthened. 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 confined cure should be thoroughly tested before use.

Bonding

Dow Corning 734 Flowable Sealant will bond to many materials; bond strength varies according to the substrate.

Stronger bonds can be obtained by preparing surfaces with *Dow Corning*® 1200 Prime Coat or *Dow Corning*® P5200 Adhesion Promoter¹. For best results:

1. Clean all surfaces using *Dow Corning*® brand OS (Ozone-Safe) Fluids or another suitable solvent. Rubber surfaces should be roughened with sandpaper and wiped with *Dow Corning* OS Fluids or another suitable solvent.
2. Apply a thin film of *Dow Corning* 1200 Prime Coat or *Dow Corning* P5200 Adhesion Promoter to all surfaces except silicone rubber. The prime coat should be allowed to dry one hour. Longer drying time may be required under conditions of low humidity.

CAUTION: *Dow Corning* 1200 Prime Coat and *Dow Corning* P5200 Adhesion Promoter are flammable. Keep away from heat, sparks and open flame. Use only with adequate ventilation. When using flammable solvents, always follow all precautions given on the solvent container label. *Dow Corning* 1200 Prime Coat and *Dow Corning* P5200 Adhesion Promoter have no FDA status.

3. If *Dow Corning* 734 Flowable Sealant is being used as an adhesive, it should be applied to both surfaces and immediately put

¹Consult your *Dow Corning* field sales representative or authorized engineered materials distributor (EMD) for more information on these and other *Dow Corning*® brand products.

in place with enough pressure to ensure uniform contact.

4. Let the unit stand undisturbed until cured.

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

When stored in original, unopened containers at or below 32°C (90°F), *Dow Corning 734 Flowable Sealant* has a shelf life of 24 months from date of manufacture. Refer to product packaging for “Use By” date.

Refrigeration is unnecessary. Containers should always be kept sealed when not in use. Once a container of sealant has been opened, a plug of cured material may form in the nozzle or tube tip during storage. This is easily removed and does not affect the remaining contents.

PACKAGING

Dow Corning 734 Flowable Sealant is supplied in 90-mL (3-fl oz) tubes, 300-mL (10.1-fl oz) cartridges, and 17.6-kg (4.5-gal) pails.

LIMITATIONS

Dow Corning 734 Flowable Sealant is not recommended:

- For continuous underwater immersion where adhesion or structural bonding is required
- On concrete, brick, mortar or other masonry surfaces
- For bonding uncured sealant directly to hot surfaces
- On surfaces to be painted; paints do not adhere well to sealant (paint before applying sealant)
- On materials such as impregnated woods or oil-based caulks that bleed oils
- In totally confined areas; atmospheric moisture is required for cure
- On *Teflon*^{®2}-coated materials, polyethylene, polypropylene or methylmethacrylate (*Plexiglas*^{®3}); sealant will not adhere well
- On or near sensitive metals such as copper, brass, zinc, carbon steel, galvanized iron or magnesium; these metals may be corroded, especially in confined cure conditions, due to the acetic acid released during the cure

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

SHIPPING LIMITATIONS

None.

WARRANTY INFORMATION

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 Dow Corning’s products are safe, effective, and fully satisfactory for the intended end use.

Dow Corning’s sole warranty is that the product will meet the Dow Corning 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. Dow Corning specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless Dow Corning provides you with a specific, duly signed endorsement of fitness for use, Dow Corning disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent.

²Registered trademark of E.I. du Pont de Nemours Co.

³Registered trademark of Pittsburgh Plate Glass.

