

DOW CORNING® 816

High Temperature Acetoxy Silicone Sealant

FEATURES

- One-component sealant
- Non-sag, paste consistency
- Easy to apply
- Cures to a tough, flexible rubber
- Good adhesion to many substrates
- Stable and flexible from -65°C (-85°F) to +260°C (+500°F), with short peaks up to +315°C (+599°F)
- Complies with MIL-A-46106B
- Resistant to ozone and ultra-violet radiation

Temperature resistant silicone sealant

APPLICATIONS

- Sealing and bonding applications exposed to high temperatures.

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales representative prior to writing specifications on this product.

CTM*	ASTM*	Property	Unit	Value
As supplied				
0176		Appearance		Non-slump paste
		Color		Red
0364		Extrusion rate	g/minute	330
0098		Skin-over time	minutes	10
0095		Tack-free time	minutes	13
Physical properties measured on 2mm thick sheet after 7 days cure in air at 23°C (73°F) and 50% relative humidity				
0022	D792	Specific gravity		1.04
0099	D2240	Durometer hardness, Shore A		26
0137A	D412	Tensile strength	MPa	2.2
0137A	D412	Elongation at break	%	560
0293		Peel strength, aluminium, unprimed	kN/m	5.5
0293		Peel strength, low carbon steel	kN/m	5.1

* CTM: Corporate Test Method, copies of CTMs are available on request.

ASTM: American Society for Testing and Materials.

TECHNICAL SPECIFICATIONS AND STANDARDS

Conforms to MIL-A-46106B. Performance related to mildew and fungus resistance has been tested in accordance with the ISO-Norm 846.

HOW TO USE

Substrate preparation

All surfaces must be clean and dry. Degrease and wash off any contaminants that could impair adhesion. Suitable solvents include isopropyl alcohol, acetone or methyl ethyl ketone.

Unprimed adhesion may be obtained on many substrates such as glass, metals and most common engineering plastics. Substrates to which good adhesion is normally not obtained include PTFE, polyethylene, polypropylene and related materials.

However, for maximum adhesion, the use of DOW CORNING® 1200 OS Primer is recommended. After solvent cleaning, a thin coat of DOW CORNING 1200 OS Primer is applied by dipping, brushing or spraying. Allow primer to dry for 15 to 90 minutes at room temperature and a relative humidity of 50% or higher.

How to apply

Apply DOW CORNING 816 Silicone Sealant to one of the prepared surfaces, then quickly cover with the other substrate to be bonded.

On exposure to moisture, the freshly applied material will 'skin-over' in about 10 minutes at room temperature and 50% relative humidity. Any tooling should be completed before this skin forms. The surface is easily tooled with a spatula.

Cure time

After skin formation, cure continues inward from the surface. In 24 hours (at room temperature and 50% relative humidity) DOW CORNING 816 Silicone Sealant will cure to a depth of about 3mm. Very deep sections, especially when access to atmospheric moisture is restricted, will take longer to cure completely. Cure time is extended at lower humidity levels.

Before handling and packaging bonded components, users are advised to wait a sufficiently long time to ensure that the integrity of the adhesive seal is not affected. This will depend on many factors and should be determined by the user for each specific application.

Compatibility

DOW CORNING 816 Silicone Sealant releases a small amount of acetic acid during cure. This may cause corrosion on some metallic parts or substrates, especially in direct contact or when the cure is carried out in a totally enclosed configuration which would not allow cure by-products to escape.

HANDLING PRECAUTIONS

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE FROM YOUR LOCAL DOW CORNING SALES

REPRESENTATIVE.

USABLE LIFE AND STORAGE

When stored at or below 32°C (90°F) in the original unopened containers, DOW CORNING 816 Silicone Sealant has a usable life of 30 months from the date of production.

As DOW CORNING 816 Silicone Sealant cures by reaction with moisture in air, keep the container tightly sealed when not in use. A plug of used material may form in the tip of a tube or cartridge during storage. This is easily removed and does not affect the remaining contents.

PACKAGING

DOW CORNING 816 Silicone Sealant is available in 90ml tubes, 310ml cartridges, 20 liter pails and 205kg drums.

LIMITATIONS

This product is not suitable for areas where food contact is likely.

Bleeding can occur on porous substrates such as concrete, marbles, granites and other natural stones. To determine the appropriate product for use on these sensitive substrates, specific testing should be carried out.

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

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Health, Environment and Regulatory Affairs specialists available in each area.

For further information, please consult your local Dow Corning representative.

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 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.