

DOW CORNING®730

Solvent Resistant Adhesive/Sealant

FEATURES

- One-component fluorosilicone adhesive/sealant
- Cures at room temperature when exposed to moisture in the air
- Acetoxy cure system
- 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 200°C (392°F)
- Retains its properties under exposure to fuels, oils and solvents

Solvent resistant silicone adhesive/sealant

APPLICATIONS

- For bonding and sealing applications where resistance to the swelling effects of fuels, solvents and oils is required.
- For assembling and/or repairing of fuel systems and tanks of aircraft.
- Used for formed-in-place gaskets where irregular shapes and harsh conditions reject ordinary seals.
- For bonding or sealing of components exposed to moisture, vibration, shock, fuels, solvents and oils for long periods of time.

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
		Colors		White
0364		Extrusion rate ¹	g/minute	420
0098		Skin-over time	minutes	5
0095		Tack-free time	minutes	25
Mechanical properties, cured 7 days in air at 23°C (73°F) and 50% relative humidity				
0022	D792	Specific gravity		1.41
0099	D2240	Durometer hardness, Shore A	37	
0137A	D412	Tensile strength	MPa	2.3
0137A	D412	Elongation at break	%	240
0159A	D624	Tear strength – die B	kN/m	4.7
		Brittle point	°C	-65
			°F	-85
0293		Peel strength, aluminum, primed	kN/m	2.6
0243		Lap shear, glass, unprimed	MPa	1.6
Fuel resistance – 7 days immersion at 80°C (176°F) in jet reference				
0231A		Volume swell	%	17
Electrical properties, after 7 days cure in air at 25°C (77°F) and 50% relative humidity				
0171		Arc resistance	seconds	124
0114	D149	Dielectric strength	kV/mm	13
0112	D150	Dielectric constant at 100Hz		5.5
0112	D150	Dielectric constant at 100kHz		5.5
0112	D150	Dissipation factor at 100Hz		0.0034
0112	D150	Dissipation factor at 100kHz		0.0043
0112	D150	Volume resistivity	Ohm.cm	2.1x10 ¹³

1. Extrusion rate: 3.2mm orifice at 0.62MPa.

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

ASTM: American Society for Testing and Materials.

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.

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 730 Solvent Resistant Adhesive/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 5 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. The adhesive/sealant will be tack-free in about 25 minutes.

Cure time

After skin formation, cure continues inward from the surface. In 24 hours (at room temperature and 50% relative humidity) DOW CORNING 730 Solvent Resistant Adhesive/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 over 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 730 Solvent Resistant Adhesive/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 material safety data sheet is available on the Dow Corning website at www.dowcorning.com. You can also obtain a copy from your local Dow Corning sales representative or Distributor or by calling your local Dow Corning Global Connection.

USABLE LIFE AND STORAGE

When stored at or below 32°C (90°F) in the original unopened containers, DOW CORNING 730 Solvent Resistant Adhesive/Sealant has a usable life of 18 months from the date of production.

As DOW CORNING 730 Solvent Resistant Adhesive/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

This product is available in standard industrial container sizes. For details please refer to your Dow Corning sales office.

LIMITATIONS

This product is neither tested nor represented as suitable for medical, food contact 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 Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, www.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 Dow Corning's 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 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.

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Table 1: Typical fluid resistance values¹

<i>Fluids</i>	<i>Volume swell, %</i>	<i>Durometer hardness Pts change</i>
Methanol	0.7	-6
Isopropanol	0.7	-2
Diesel	2.6	-4
JP-5	3.8	-2
JP-8	4.0	-1
DOW CORNING® OS20 Fluid	4.4	-3
Jet reference Fuel ²	16.9	-8

¹ DOW CORNING 730 Solvent Resistant Adhesive/Sealant cured 7 days before immersion; properties obtained after 7 days immersion at room temperature.

² Properties obtained after 7 days immersion at 80°C (176°F).