

# Technical data sheet



Product: SILICONE AP

Manufacturer: DOWSIL

Product group: KLEBSTOFF

Article group: 1-K SILIKON

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## DOWSIL™ SILICONE AP ADHESIVE SEALANT

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## Technical Data Sheet

### DOWSIL™ Silicone AP Adhesive Sealant

General purpose silicone adhesive sealant

#### Features & Benefits

- One-component adhesive sealant
- Cures at room temperature when exposed to moisture in the air
- Acetoxy cure system
- Non-sag, paste consistency
- Easy to apply
- Good adhesion to many substrates
- Stable and flexible from -50°C (-58°F) to +180°C (+356°F)

#### Applications

- General industrial sealing, gasketing and bonding applications

#### Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

CTM <sup>1</sup>	ASTM <sup>2</sup>	Property	Unit	Result
<b>As supplied</b>				
0176		Appearance		Non-slump paste
		Colors		Clear, white, gray, black
0364		Extrusion rate, 3 mm orifice at 0.62 MPa	g/min	450
0098		Skin-over time	minutes	11
0095	MIL <sup>3</sup> -S-8802F	Tack-free time	minutes	21
<b>Mechanical properties, cured 7 days in air at 25°C (77°F) and 50% relative humidity</b>				
0022	D 792	Specific gravity		1.03
0099	D2240	Durometer hardness, Shore A		25
0137A	D412	Tensile strength	MPa	2.2
0137A	D412	Elongation at break	%	540

1. CTM: Corporate Test Method, copies of CTMs are available on request.
2. ASTM: American Society for Testing and Materials.
3. MIL: Military Specification and Standards.

## 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 DOWSIL™ 1200 OS Primer is recommended. After solvent cleaning, a thin coat of DOWSIL™ 1200 OS Primer is applied by dipping, brushing or spraying. Allow primer to dry for 15 to 90 minutes at room temperature and in a relative humidity of 50% or higher.

### How to Apply

Apply a bead of DOWSIL™ Silicone AP Adhesive Sealant (see Handling Precautions) 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 "skinover" in about 11 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 21 minutes.

### Cure Time

After skin formation, cure continues inward from the surface. In 24 hours (at room temperature and 50% relative humidity) DOWSIL™ Silicone AP Adhesive Sealant will cure to a depth of about 3 mm. 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 users for a specific application.

### Compatibility

DOWSIL™ Silicone AP 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 byproducts to escape.

## Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. 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 ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

## Usable Life and Storage

Product should be stored at or below 32°C (90°F) in original, unopened containers. The most up-to-date shelf life information can be found on the Dow web site in the Product Detail page under Sales Specification.

**Limitations**

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 has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, [dow.com](http://dow.com) or consult your local Dow representative.

**Disposal Considerations**

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

**Product Stewardship**

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

**Customer Notice**

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