



Technical Data Sheet

DOWSIL™ 94-003 Dispersion Coating

One part, fluorosilicone elastomer coating

Features & Benefits

- Retention of properties and good bond strength when exposed to oils and fuels
- Flexible from -65°C to +260°C
- Excellent adhesion to most materials
- Resistant to weathering, moisture and ozone
- One part room temperature cure
- Cures to a flexible rubber when exposed to the moisture in the air

Applications

- Developed to protect various substrates and parts (such as silicone rubber insulation and ducting) from solvents, fuels and oil
- Successfully used to control corrosion in integral fuel tanks

Typical Properties

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

CTM ¹	ASTM ²	Property	Unit	Result
Physical and Chemical Properties				
		Physical Nature, As Supplied		50% fluorosilicone solids dispersed in methyl ethyl ketone
		Physical Nature, As Cured		Elastomer
		Color		Buff (transparent in thin sections)
0022	D792	Relative Density at 25°C		1.36
0050	D1084	Viscosity at 25°C	mPa.s	6,500
		Cure Time at 25°C	hours	24
		Flash Point - Open Cup	°C	-1
Mechanical Properties, Cured 7 Days at 25°C and 50% Relative Humidity				
0099	D2240	Durometer Hardness, Shore A		40
		Low Temperature Flexibility	°C	-65
Adhesion				
		Cured 24 hours at 25°C and 50% Relative Humidity: 2024 Clad Aluminum, DOWSIL™ 1200 OS Primer		Excellent
		After 7 days at 80°C in Jet Reference Fuel: 2024 Clad Aluminum, DOWSIL™ 1200 OS Primer		Excellent

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

How to Use

Substrate Preparation

Substantially stronger and more uniform adhesion is obtained by preparing metal and plastic surfaces with DOWSIL™ 1200 OS Primer. For best results:

1. Clean the surface with a chlorinated solvent (see Handling Precautions) and a slightly abrasive pad or a coarse lint-free cloth.
2. Rinse all cleaned surfaces with acetone or methyl ethyl ketone.
3. Apply a thin coat of primer by dipping, brushing or spraying.
4. Allow the primer to dry for at least 1 hour, according to relative humidity.
5. Silicone rubber surfaces should not normally be primed, but only roughened slightly with abrasive paper and rinsed with acetone. In thin sections, a primer may be needed.

Pigmenting

For those applications requiring color, DOWSIL™ 94-003 Dispersion Coating lends itself very well to pigmentation. Good coverage is possible with a pigment comprising at least 10% by weight of total combination. (see mixing recommendations). Zinc oxide, titanium oxide and carbon black are a few of the many pigments used successfully in this coating.

Mixing Recommendations

Any solvent or pigment added to DOWSIL™ 94-003 Dispersion Coating must be free of moisture to prevent premature gelation. This can be accomplished by adding the solvent or filler to the coating and rolling the combination in a closed container until thoroughly mixed, or by mixing in a commercial paint shaker.

How to Apply

DOWSIL™ 94-003 Dispersion Coating can be applied by brushing or dipping as supplied, or by spraying. If spraying is preferred, the coating can be thinned with methyl ethyl ketone to the viscosity necessary for use with intended spray equipment (see Mixing).

The average build per dip is 0.05 mm. Extra buildup per dip can be obtained by applying additional coats after allowing the coated surface to airdry for 30 minutes.

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 CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

When stored at or below 32°C in the original unopened containers, DOWSIL™ 94-003 Dispersion Coating has a usable life of 8 months from the date of production.

Packaging Information

DOWSIL™ 94-003 Dispersion Coating is available in pint, gallon and 5 gallon containers containing respectively 0.45, 3.6 and 18.1 kg net weight.

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, consumer.dow.com or consult your local Dow representative.

consumer.dow.com

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