

Dow Corning® LDC 2577 D Silicone Conformal Coating

One part, RTV silicone resin

APPLICATIONS

Protective coating for rigid and flexible circuit boards and thick film circuitry, and for impregnating porous substances such as ceramics to improve moisture resistance.

FEATURES

- ◆ Good electrical properties when cured
- ◆ Ease of application by spraying, dipping, brushing or flow coating
- ◆ Choice of room-temperature cure or heat cure
- ◆ Flame resistance
- ◆ Easy repair ability
- ◆ Contains ultraviolet indicator for ease in inspection under a black light
- ◆ MIL-I-46058C pending
- ◆ Flexibility over a wide temperature range from -65 to 200°C

TYPICAL PROPERTIES

Specifications 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		Translucent
0208		Nonvolatile content	percent	61
0400		Color		Yellow-green
0050	D1084	Viscosity at 25°C	CPS	175
0095	D2377	Tack free time	min	50
AS CURED				
0099	D-2240	Hardness Shore D	Point	30
0137A	D-0412	Tensile strength	PSI	300
0137A	D-0412	Elongation	%	30
0114	D-0149	Dielectronic strength	Volt/mil	1100
0114	D-0149	Dielectric strength, 10-mil film	Volts/mil	1,100
0112	D-0150	Dielectric constant at 100 Hz		2.54
0112	D-0150	At 100 kHz		2.51
0112	D-0150	Dissipation factor at 100Hz		0.00220
0112	D-0150	At 100 kHz		0.00097
0249	D-0257	Volume Resistivity	Ohm-cm	1.0 X 10 ¹⁴

DESCRIPTION

LDC 1-2577 D silicone conformal coating is a transparent silicone resin that offers good dielectric properties at both high and low frequencies. It also has high resistance to moisture and

excellent light transmission capabilities for solar application.

HOW TO USE

Surface Preparation

For best adhesion, the surface should be clean and dry prior to application. DC OS Fluids are recommended as cleaning agents. If increased adhesion is required for harsh environments, use DC 1204 primer.

Application

LDC 1-2577 D conformal coating can be applied by spraying, dipping, brushing, or flow coating.

One dip coat of LDC 1-2577 D conformal coating typically produces a film thickness of 5 to 8 mils. Thinner coating can be achieved by diluting LDC 1-2577D with xylene, toluene or 1,1,1-trichloroethane ??.

Cure

Room temperature cure - cures upon contact with moisture in the air. The thicker the coating, the longer the cure time. It takes 70 min for curing 0.5mm thickness. When shorter curing time required, add 0.5 PHR of DC-176. Curing time will reduced to 40 min. It would recommend to consume the remaining in a week, when DC-176 applied.

Heat cure- Keep it for 15min in the room temp and then 10 min in the oven temperature of 70~80 °C.

HANDLING PRECAUTIONS

LDC 1-2577 D conformal coating contains toluene. Keep away from heat, and open flame. Use only with adequate ventilation. Avoid prolonged breathing of vapor and prolonged or repeated skin contact.

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

It should be stored at or below 25 °C. Special precautions must be taken to prevent moisture from contacting this

material. Containers should be kept tightly closed and head or air space minimized. The shelf life of LDC 1-2577 D in the original unopened container is 6 months from date of shipment.

PACKAGING

This product is available in 1 kg Bottle and is Translucent in color.

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 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.

