

MS-460H / 462H Silicone Conformal Coating

Description

A transparent, soft, flexible coating which offers excellent moisture resistance, good dielectric properties, and excellent light transmission capabilities for solar applications. It has good weatherability and resistance to U.V. light and dirt pick-up. It is also solderable for easy repair. Contains Dow Corning 1-2577 silicone resin. This silicone resin meets the requirements of MIL-I-46058C, Type SR, IPC-CC-830B and UL 746E approved. It is also compatible with WEEE and RoHS.

Application

Silicone Conformal Coating dries in approximately one hour and completely cures within 72 hours after coating. A good cure for a working environment requires 24 hours at 77°F/25°C and 50% relative humidity. Higher humidity and temperature will result in a faster cure. The coating can be cured in 30 minutes at 168°F/75°C or in 15 minutes at 302°F/150°C in an air circulating oven.

MS-460H (Aerosol) will cover approximately 3.8 sq. ft. at a 2 mil thickness per 12 oz. aerosol can. MS-462H (bulk liquid) is available in quart and gallon size containers for dip, brush and/or spray applications. It will cover approximately 62 sq. ft. /gallon when applied at a 2 mil thickness.

Silicone Conformal Coating can be removed with MS-114C or MS-115 Conformal Coating Strippers.

CURED ELECTRICAL PROPERTIES

Dielectric Strength (volts/mil)	400
Dielectric Constant @ 105 Hz	2.74
Dissipation Factor @ 105 Hz	<0.0002
Volume Resistivity (ohm/cm)	5x10 ¹³

CURED PHYSICAL PROPERTIES

Operating Temperature:	-49°F/-45°C to 392°F/200°C
UL Flammability Classification	94 V-0
Tensile Strength (psi) @ 77°F/25°C	240
Elongation (%) @ 77°F/25°C	74
Durometer Hardness, Shore A, Points	80
Coefficient of Thermal Expansion in./in./ °C	2.1 x 10 ⁻⁴
Thermal Conductivity cal/sec/cm ² /cm/C	2.9 x 10 ⁻⁴
Water Absorption	
100 hrs. @ 77°F/25°C	0.11%
100 hrs. @ 221°F/105°C & 98%RH	0.33%

Fluorescent when viewed with ultraviolet light. Miller-Stephenson offers urethane, acrylic and silicone conformal coatings available in aerosol and bulk liquid.

Safety Data Sheets (SDS) are available upon request.

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