419E Aerosol

Premium Acrylic Conformal Coating

419E is a 1-part, UL 746E certified, acrylic conformal coating. It cures to a durable, flexible and smooth finish. It is easy to apply and can be handled in 15 minutes. It may be removed with appropriate strippers, or soldered through for repair or rework.

419E creates a robust moisture barrier that protects printed circuit boards in humid environments. It provides strong protection against moisture, corrosion, fungus, dirt, dust, thermal shock, short circuits, high-voltage arcing, and static discharge.

Features and Benefits

- Certified UL 746E (File# E203094)
- Certified IPC-CC-830C
- Xylene and toluene free
- Fluoresces under UV-A light

Available Packaging

Cat. No.	Packaging	Net Vol.	Net Wt.
419E-340G	Aerosol	420 mL	340 g

Contact Information

MG Chemicals, 1210 Corporate Drive
Burlington, Ontario, Canada L7L 5R6

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Phone: North America: +(1)800-340-0772
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Cured Properties

Resistivity	3.5 x 10^{13}	Ω·cm
Dielectric Strength	1 100	V/mil
Dielectric Withstand Voltage	>1 500	V
Insulation Resistance	1 x 10^{12}	Ω
Moisture Insulation Resistance	1 x 10^{12}	Ω
Glass Transition Temperature (T_g)	38	°C
CTE prior T_g	160	ppm/°C
Service Temperature Range	-65–130	°C

Usage Parameters

Dry Time To Handle (1 coat)	15	min
(2 coats)	25	min
Recoat Time	3	min
Recommended Film Thickness	25–75	µm
Theoretical Coverage @ 25 µm	3 700	cm^2

Uncured Properties

Viscosity @ 25 ˚C	20	cP
Density	0.88	g/mL
Percent Solids	7.8	%
Shelf Life	5	y
Calculated VOC	828	g/L

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Application Instructions

Read the product SDS before using this product (downloadable at www.mgchemicals.com).

Recommended Preparation

Clean the substrate with Isopropyl Alcohol, MG #824, so the surface is free of oils, dust, and other residues.

Spray

1. Shake the can vigorously.
2. Spray a test pattern to ensure good flow quality.
3. Tilt the board at 45° and spray a thin, even coat from a distance of 20–25 cm (8–10 in). Use spray-and-release strokes with an even motion to avoid paint buildup in one spot. Start and end each stroke off the surface.
4. Wait 3 min before applying another coat, to avoid trapping solvent.
5. Rotate the board 90° and spray again to ensure good coverage.
6. Apply additional coats until desired thickness is achieved (go to step 3).
7. Let dry 15 min at room temperature before applying heat cure.
8. After use, clear the nozzle by inverting the can and briefly spraying until clear propellant comes out.

Cure Instructions

Allow to dry at room temperature for 24 hours, or after letting sit for 15 minutes, cure the coating in an oven at one of these time/temperature options:

Temperature	65 °C	80 °C	100 °C
Time	30 minutes	15 minutes	5 minutes

Storage and Handling

Store between -5 and 40 ˚C in a in a dry area, away from sunlight (see SDS).

Disclaimer

This information is believed to be accurate. It is intended for professional end-users who have the skills required to evaluate and use the data properly. M.G. Chemicals Ltd. does not guarantee the accuracy of the data and assumes no liability in connection with damages incurred while using it.