422B Aerosol

Silicone Modified Conformal Coating

422B is a 1-part, acrylic-silicone blend conformal coating that cures to a durable, flexible and smooth finish. It is easy to apply and can be handled in only 8 minutes. It may be removed with appropriate strippers or soldered through for repair or rework.

422B is designed for applications where both high service temperature and flexibility are required. It puts minimum stress on components during thermal cycling, making it ideal for applications that involve a wide temperature range. It provides strong protection against moisture, corrosion, fungus, dirt, dust, thermal shock, short circuits, high-voltage arcing, and static discharge.

Features & Benefits

Certified UL 94 V-0 (File# E203094)

Maximum constant service temperature of 200 °C

Fluoresces under UV-A light

Excellent corrosion resistance

Cure Instructions

Allow to dry at room temperature for 48 hours, or after letting sit for 10 minutes, cure the coating in an oven for 20 min @ 65 ˚C.

Available Packaging

Part #	Packaging	Net Vol.	Net Wt.
422B-340G	Aerosol	425 mL	340 g
422B-340GCA	Aerosol	425 mL	340 g

Storage and Handling

Store between -5 and 27 ˚C in a in a dry area, away from sunlight (see SDS).

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Liquid Properties

Binder System	Acylic silicone blend	—
Dry Time to Handle	8 min (1 coat) 15 min (2 coats)	—
Minimum Recoat Time	3 min	—
Recommended Film Thickness	25–75 µm	—
Density	0.8 g/mL	ASTM D1475
Viscosity @ 25 ˚C	6 cP	Brookfield Engineering labs Inc. IPCTM-65- Method 2.4.24.4
Percent Solids	8.6%	—
Theroretical Coverage @ Recommended Thickness	4 200 cm^2	Calculated
Calculated VOC	627 g/L	—
Shelf Life	5 y	—

Cured Properties

UL	94 V-0	—
Color	Clear	—
Resistivity	1.2 x 10^{15} Ω·cm	ASTM D257
Breakdown Voltage Dielectric Strength	>1 500 V 1 056 V/mil	ASTM D149
Dielectric Constant @ 1 MHz Dissipation Factor @ 1 MHz	2.0 0.012	ASTM D150
Glass Transition Temperature (T_g)	29 ˚C	ASTM E1545
Coefficient of Thermal Expansion (CTE)	275 ppm/˚C (Prior T_g)	ASTM E831
Service Temperature Range	-40–200 ˚C	—

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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 MG #824 99.9% Isopropyl Alcohol, 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 froma distance of 20–25 cm (8–10 in). Use spray-andrelease 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 10 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.