# 419D Aerosol

## Acrylic Conformal Coating

419D is a 1-part, acrylic conformal coating that cures to a durable, flexible and smooth finish. It is easy to apply and can be handled in 10 minutes. It may be removed with appropriate strippers or soldered through for repair or rework.

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




## Features and Benefits

- Certified UL 94 V-0 (File# E203094)
- Certified IPC-CC-830B
- Xylene and toluene free
- Fluoresces under UV-A light

## Available Packaging

| Cat. No. | Packaging | Net Vol. | Net Wt. |
|---|---|---|---|
| 419D-340G | Aerosol | 410 mL | 340 g |

## Contact Information

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

Email: support@mgchemicals.com

Phone: North America: +(1)800-340-0772
International: +(1) 905-331-1396
Europe: +(44)1663 362888

## Cured Properties

| | | |
|---|---|---|
| Resistivity | $4.6 \times 10^{14}$ | Ω·cm |
| Dielectric Strength | 1 000 | V/mil |
| Dielectric Withstand Voltage | >1 500 | V |
| Insulation Resistance | $1 \times 10^{13}$ | Ω |
| Moisture Insulation Resistance | $1 \times 10^{12}$ | Ω |
| Dielectric Constant @ 1 MHz | 2.85 | |
| Dissipation Factor @ 1 MHz | 0.004 | |
| Glass Transition Temperature ($T_g$) | 27 | °C |
| CTE Prior $T_g$ | 72 | ppm/°C |
| Service Temperature Range | -65–125 | °C |

## Usage Parameters

| | | |
|---|---|---|
| Dry Time To Handle (1 coat) | 10 | min |
| (2 coats) | 20 | min |
| Minimum Recoat Time | 3 | min |
| Recommended Film Thickness | 25–75 | µm |
| Theoretical Coverage @ 25 µm | 5 700 | $cm^2$ |

## Uncured Properties

| | | |
|---|---|---|
| Viscosity @ 25 ˚C | 40 | cP |
| Density | 0.91 | g/mL |
| Percent Solids | 13 | % |
| Shelf Life | 5 | y |
| Calculated VOC | 794 | 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 3 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 10 minutes, cure the coating in an oven at one of these time/temperature options:

| | | | | |
|---|---|---|---|---|
| **Temperature** | 65 °C | 80 °C | 100 °C | 120 °C |
| **Time** | 30 min | 20 min | 10 min | 5 min |

## 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.