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ISO 9001 Registered Quality System

QMI Certificate # 004008

Burlington, Ontario, Canada

# Silicone Conformal Coating

Cat. No.: 422B (REPLACEMENT FOR 422A)

## Product Description

Ideal for high temperature environments. Silicone Conformal coating is a flexible finish product that provides a protective coating for printed circuit boards against moisture, corrosion, and thermal shock.

It protects and insulates electrical and electronic components and assemblies, including generators, motors, transformers, relays, and solenoid coils.

For spraying, liquid can be thinned using M.G. [Thinner Cleaner](#). Thin up to one half part thinner to one part coating.

- **UL Registered**, 94V-0 (file # E203094)

## Specifications

Standards	
	UL Registered, 94V-0 (file # E203094)
Uncured Properties	
Phase	Liquid
Color	Clear
Odor	Ethereal
Specific Gravity	0.90
Viscosity	13 cps @ 23 °C Brookfield 100 rpm Spindle 4
Flash point	-18 °C / -0.4 ° F
Autoignition temperature	465 °C / 869 °F
LEL	0.8
UEL	13.1
Boiling Point	55 °C / 131 °F
pH	7.0
Solvent	Xylene, acetone
Percent solids by weight	25% (liquid); 15% (aerosol)
VOC Content	75.0 % by wt. 675 Grams / Liter
Cure schedule	
Tack free time	5-7 minutes at 22°C / 71.6°F
Full cure	48 hrs. @ 20°C / 68°F 20 min. @ 65°C / 149°F
Electrical Properties	

Dielectric Strength	IPC-TM-650	1056 volts/mil @ 0.150 inch thickness
Dielectric Constant	ASTM 150-98	
@ 60MHz		2.35
@ 1 MHz		1.99
Dissipation Factor	ASTM 150-98	
@ 60MHz		0.037
@ 1 MHz		0.012
Volume Resistivity	ASTM D257	1.2 X 10 <sup>15</sup> ohm · cm
Surface Resistivity	ASTM D257	4.5 X 10 <sup>16</sup> ohm · cm
<b>Thermal Properties</b>		
Coefficient of Thermal Expansion (-40°C to 160°C)	IPC-TM-650	253.3 ppm/°C
Softening point		31.4 °C

## Usage Instructions

Best results will be obtained by applying to thoroughly cleaned and dried parts or materials. It is essential that surfaces be free of any trace of grease or organic substances.

At room temperature, the product will tack free in approximately 5-7 minutes, and full cure will be achieved in approximately 48 hours.

Curing may be accelerated by applying moderate heat with either a convection oven or infrared lamps. We recommend curing in a convection oven at 65°C (149°F) for one hour, but other temperature and time combinations can work well. Heat curing will improve the physical strength of this coating.

## Availability

Catalog Number	Sizes Available	Description
422B-55ML	2 oz (55 mL)	Liquid
422B-340G	340 gram (12 oz)	Aerosol
422B-1L	950 mL (1 quart)	Liquid
422B-4L	4 L (1 gallon)	Liquid
422B-20L	20 L (5.3 gallon)	Liquid
422B-P	5 mL (0.16 oz)	Pen

### Note:

This information is believed to be accurate. It is intended for professional end users having the skills 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.