



DOWSIL™ CC-8033 UV and Moisture Dual Cure Conformal Coating Adhesive

Description

One-part translucent UV and moisture dual curable coating or adhesive.

Uses / Applications

- E-motor
- Automotive boards & assemblies
- Power supplies & modules
- Power tools
- Control units
- Connectors pin/solder joint coverage
- Home appliances
- Rigid circuit boards

Benefits

- Sprayable or needle dispense flowable / thixotropic
- Fast UV cure with secondary moisture cure
- LED curable
- Reduced oxygen inhibition, tack-free surface after UV/LED curing
- No added solvents
- Stress relieving
- UV indicator for easy inspection
- Good adhesion to most circuit board materials

Physical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Reference	Property	Result	Unit
	One or Two Part	One	
CTM ¹ 0176	Color	Translucent	
CTM1067	Non-volatile Content	95	%
CTM0050	Viscosity	15,000	cp
CTM0022	Specific Gravity, Cured	1	
CTM0099	Durometer	30	Shore A
CTM0137	Tensile Strength	150	psi
CTM0137	Elongation	105	%
CTM0114	Dielectric Strength (Non-dried)	415	Volts/mil
CTM0249	Volume Resistivity (Non-dried)	1.10E13	ohm-cm
CTM0543	Dielectric Constant at 100 Hz	2.66	
CTM0543	Dielectric Constant at 100 kHz	2.66	
CTM0543	Dissipation Factor (Permittivity) 100 Hz	0.0054	
CTM0543	Dissipation Factor (Permittivity) 100 kHz	< 0.002	

¹CTM: Corporate Test Method, copies of CTM's are available on request.

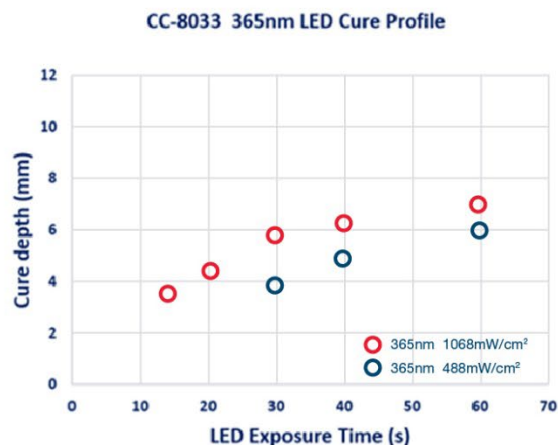
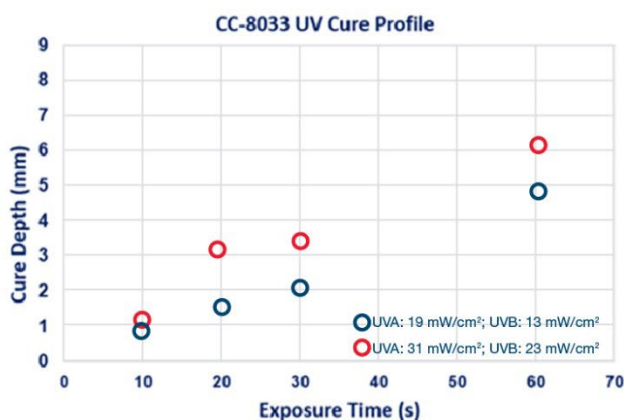
Certifications

- UL 94 V-0

Processing and Application Guidelines

A broad spectrum “H” bulb or 365 nm LED UV curing equipment is recommended:

- UV and LED curable;
- No oxygen inhibition;
- 2J/cm² UV irradiation depth of cure up to 3+ mm;
- Secondary moisture cure: tack-free time 48-72 hours;



LED UV-Cure for 365 nm	
Dosage (mJ/cm ²)	Cure Depth (mm)
16650	3.4
22900	4.2
27360	5.2
41680	5.8
64680	6.2

Broad Spectrum UV-Cure	
Dosage (mJ/cm ²)	Cure Depth (mm)
700	0.9
1300	2.7
2000	3.4
4100	5.5

Useful Temperature Ranges

For most uses, silicone conformal coatings should be operational over a temperature range of -40 to 150°C (-40 to 302°F) for long periods of time. However, at both the low and high temperature ends of the spectrum, behavior of the materials and performance in particular applications can become more complex and require additional considerations. For low temperature performance, thermal cycling to conditions such as -40°C (-40°F) may be possible but performance should be verified for your parts or assemblies. Factors that may influence performance are configuration and stress sensitivity of components, cooling rates and hold times, and prior temperature history. At the high temperature end, the durability of the cured silicone elastomer is time and temperature dependent. As expected, the higher the temperature, the shorter the time the material will remain useable.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area. For further information, please see our website, dow.com or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner. It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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