



Preliminary Technical Data Sheet

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

One-part translucent UV and Moisture Dual Curable Coating or Adhesive.

Features & Benefits

- One-part silicone product;
- Solventless;
- Medium Viscosity, flowable, and thixotropic;
- UV cure with secondary moisture cure dual cure; LED curable;
- Adhesion to a variety of common substrates such as FR4 and glass;
- Low Modulus for stress relief and protection delicate components;
- UV indicator allows for easy or automated inspection

Composition

- Polydimethylsiloxane Coating

Applications

DOWSIL™ CC-8033 Conformal Coating Adhesive is suitable for:

- Rigid circuit boards
- Electronic Printed Wiring Boards (PWB)
- Pin/Solder Joint coverage
- Thin section encapsulation
- Spot protection or Adhesive stacking of components
- Coverage of taller components, wire bonds, and edges
- Sealing connector pins

Typical Properties

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

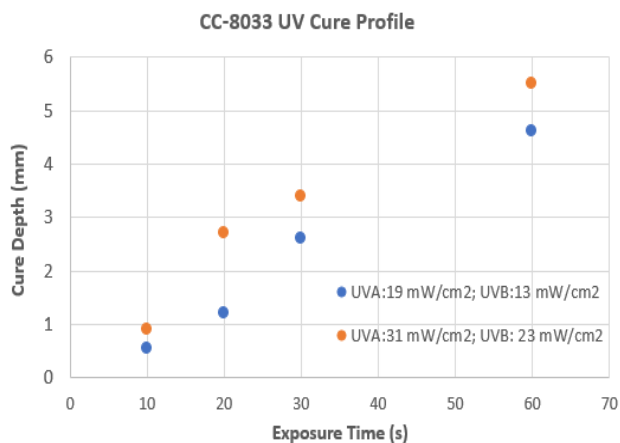
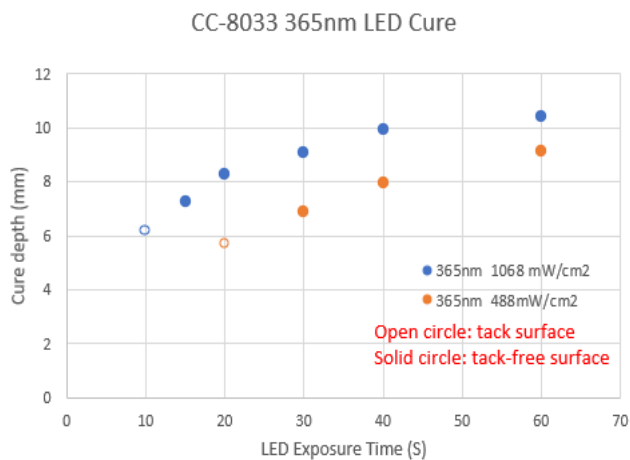
Property	Unit	Result
One or Two-Part	-	One
Color	-	Translucent
Viscosity ¹	cP	10,000-25,000
Density	g/cm ³	1.0
Tensile Strength	psi	64
Elongation	%	90
Durometer	Shore A	36
Modulus (25%)	psi	73
Dielectric Strength	Volts/mil	Approx. 575
Dielectric constant at 100 Hz		Approx. 1.6
Dielectric constant at 100 kHz		Approx. 1.65
Dissipation Factor at 100 Hz		Approx. 0.02
Dissipation Factor at 100 kHz		Approx. 0.001
UL Flammability		Pending
Shelf life ²		>6 Months

1: Cone and Plate viscometer with CPA-52Z cones tested at 1 rpm;
2: room temperature storage 3-6 months, refrigerator (<10 °C) 9 months;

Processing / Curing:

- UV and LED curable;
- No oxygen inhibition;
- Excellent cure depth;
- Secondary moisture cure: cure time 48-72 hours;

CC-8033 LED and UV cure profile:



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Description

DOWSIL™ CC-8033 UV and Moisture Dual Cure Conformal Coating, an exceptional Silicone Conformal Coating Adhesive that could be primarily cured by UV light or LED light, and the secondary moisture cure for shadow regions.

DOWSIL™ CC-8033 A soft Conformal Coating ideal for automated dispense processing. Solventless, and the primary UV cure of this product dramatically improve throughput, offers an eco-friendly environment for workers, and saves the energy consumptions compared with heat curing.

Application Methods

- **Formulated for spray processing, needle dispense. Manual or Automated dispensable**

Pot Life and Cure Rate

The pot life of **DOWSIL™ CC-8033 UV and Moisture Dual Cure Conformal Coating** is dependent on the application method chosen. To extend pot life, minimize exposure to moisture by using dry air or dry nitrogen blanketing whenever possible.

Useful Temperature Ranges

For most uses, silicone conformal coatings should be operational over a temperature range of -40 to 200°C (-40 to 257°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 CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Useful Life and Storage

The product should be stored in its original packaging with the cover tightly attached to avoid any contamination. Storage conditions and shelf life ("Use By" date) are indicated on the product label. Keep avoiding light exposure to have stable shelf life of product.

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.

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For further information, please see our website, consumer.dow.com or consult your local Dow representative.

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To discuss how we could work together to meet your specific needs, go to www.dow.com for a contact close to your location. Dow has customer service teams, science and technology centers, application support teams, sales offices, and manufacturing sites around the globe.

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