Technical Data Sheet

DOWSIL™ CC-8030 UV and Moisture Dual Cure Conformal Coating

One-part, translucent, medium viscosity, UV and moisture dual curable coating

Features & Benefits

- No added solvents
- BTX solventless
- Low viscosity, sprayable
- Fast primary UV cure
- Secondary moisture cure for shadowed areas
- Non-oxygen inhibited formulation
- Elastomeric formulation improves reliability against stress
- Low modulus for delicate components
- UV indicator allows for easy or automated inspection
- UL 746E UL-94 pending
- IPC-CC-830 pending

Composition

- Polydimethylsiloxane coating

Applications

DOWSIL™ CC-8030 UV and Moisture Dual Cure Conformal Coating is suitable for use with:

- Rigid circuit boards
- Electronic Printed Wiring Boards (PWB)
- Sensitive components and fine pitch design

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	520
Specific Gravity		0.98
Tensile Strength	psi	120

1. Cone and Plate 50 RPMs.

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Typical Properties (Cont.)

Property	Unit	Result
Elongation	%	85
Durometer	Shore A	30
Dielectric Strength	volts/mil	575
Dielectric Constant at 100 Hz		1.62
Dielectric Constant at 100 kHz		1.68
Dissipation Factor at 100 Hz		0.0195
Dissipation Factor at 100 kHz		0.0007
UL Flammability		Pending
Broad Spectrum UV Cure	mJ/cm^2	> 2,000 (broad spectrum)
Shelf Life		> 9 months

Description

DOWSIL™ CC-8030 UV and Moisture Dual Cure Conformal Coating, an exceptional silicone conformal coating that cures in under a minute with Broad spectrum UV light.

DOWSIL™ CC-8030 UV and Moisture Dual Cure Conformal Coating is a soft medium viscosity conformal coating ideal for spray processing. BTX 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.

Processing/ Curing

DOWSIL™ CC-8030 UV and Moisture Dual Cure Conformal Coating cures in seconds under broad spectrum UV light.

Cure is via Broad Spectrum UV radiation (UV A, UV B and UVC), preferably mercury vapor lamp (H-type) system.

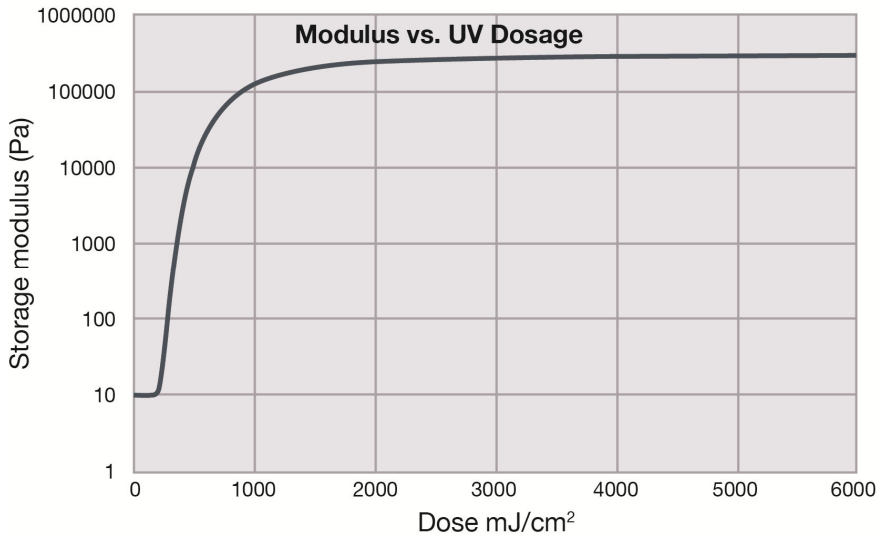


Figure 1: Storage modulus vs. UV dosage

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Processing/ Curing (Cont.)

Figure 2: Approximate cure time

Approximate Cure Time Table	
Time	Intensity
s	mW / cm^2
7	300
10	200
20	100
40	50

Typical values, not to be construed as specifications. Users should confirm results by their own tests.

Application Methods

- Specifically formulated for optimized spray coating

Pot Life and Cure Rate

The pot life of DOWSIL™ CC-8030 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 DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable 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.

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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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To discuss how we could work together to meet your specific needs, go to **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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