Product Information
Solar

DOW CORNING

Dow Corning® PV-8303 Ultra Fast Cure Sealant

FEATURES & BENEFITS

- Adhesion to typical PV substrates
- Ultra fast cure for fully automated processes
- UL 94 HB; HWI=2; HAI=3; CTI=0; RTI 105 ℃ (221 ℉)

COMPOSITION

- Two-part, ultra fast cure silicone sealant

Ultra fast cure silicone adhesive sealant

APPLICATIONS

- Used as frame sealing and junction box adhesion on photovoltaic module

TYPICAL PROPERTIES

Specification Writers: These values are not intended for use in preparing specifications. Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Property	Unit	Result
***Dow Corning*® PV-8303 UF Catalyst Black**		
Color		Black
Viscosity	mPa s or cP	350,000
Specific gravity		1.03
***Dow Corning*® PV-8300 Base**		
Color		White
Extrusion Rate	Grams/ m	190
Specific Gravity		1.31
***Dow Corning*® PV-8300 Base with *Dow Corning*® PV-8303 UF Catalyst**		
Color		Black
Snap time (working time)	minutes	8-10 range
Cure time	hours	2.5 @ 25 ℃
Specific gravity		1.31
Properties after full cure – 7 days at RT – measured on 2 mm cured sheets		
Durometer hardness	Shore A	38 to 44
Tensile strength (H-Bar Test)[1]	Psi	174
	MPa	1.2
Elongation to break (H-Bar Test)[1]	%	80
Tensile strength (Sheet material test) [2]	Psi	300 to 350
	MPa	2.1-2.4
Elongation to break (Sheet material test)[2]	%	220
Adhesion via Peel Test – 7 day cure at 23 ℃		
	Cohesive Failure %	pli
PPO, Anodized Al, Glass and Tedlar®	100	15 to 24

[1]Test per external reference NFP 85-405, DTU 39.4.
[2]Test per external reference ASTM D 412 (ASTM: American Society for Testing and Materials.)

DESCRIPTION

Dow Corning® PV-8303 Ultra Fast Cure Sealant is designed to provide long-term bonding and protection against moisture, environmental degradation, mechanical and thermal shock where ultra fast cure is needed for automated processing.

HOW TO USE

Mixing

The *Dow Corning* PV-8303 Ultra Fast Cure Catalyst is designed to be used with *Dow Corning* PV-8300 Base in a mix ratio of 100 parts base to 14 parts catalyst by weight. Suitable meter/mix equipment should be equipped with gear or piston metering pumps for base and catalyst, and a static mixer.

Curing Conditions

Dow Corning PV-8303 Ultra Fast Cure Sealant achieves a skin over time of 8 to 10 minutes at 25 ℃ and develops adhesion rapidly to metals, glass and plastic substrates. Adhesion is achieved to most substrates without the use of primer, or of surface activation methods.

Humid Resistance

Dow Corning PV-8303 Ultra Fast Cure Sealant shows good adhesive resistance to hot and humid conditions.

HANDLING PRECAUTIONS

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

Attention: When the information contained in the PSDS relates to a prototype material or a research & development sample, please be aware that hazard evaluation and handling recommendations are based on preliminary test data (if available), professional judgment in comparison with materials of a similar composition or a combination of these sources, as appropriate.

For further information, please consult Dow Corning's Health, Environmental and Regulatory Affairs Department (see Health and Environmental Information section).

USABLE LIFE AND STORAGE

When stored at or below 25 ℃ (77 ℉) in the original unopened containers *Dow Corning* PV-8303 Ultra Fast Cure Catalyst has a usable life of 12 months and *Dow Corning* PV-8300 Base has a usable life of 14 months from the date of manufacture.

PACKAGING INFORMATION

Dow Corning PV-8303 Ultra Fast Cure Catalyst and *Dow Corning* PV-8300 Base are available in standard pail and drum packaging. Detailed container size information may be obtained from your Dow Corning representative.

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 Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

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

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customers' tests to ensure that our products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning's sole warranty is that our products will meet the sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

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