Product Information
Solar

DOW CORNING

Dow Corning® PV-8301 Fast Cure Sealant

FEATURES

- Adhesion to typical PV substrates
- Fast cure allowing increased production rates
- Two part product providing customized cure rate
- UL 94 HB, RTI 105°C (221°F)

COMPOSITION

- Two-part, fast cure silicone sealant

Fast cure silicone adhesive sealant

APPLICATIONS

- Bonding and sealing photovoltaic module components
- Used for rail bonding, frame sealing and junction box adhesion

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 contact before writing specifications on this product.

Property	Unit	Value
***Dow Corning*® PV-8301 Catalyst**		
Color		Black and Clear
Extrusion Rate	g/min	204
Viscosity	mPa s	50000 - Black
	mPa s	27500 - Clear
Specific Gravity		1.00
***Dow Corning*® PV-8300 Base with *Dow Corning*® PV-8301 Catalyst**		
Snap Time (working time)	minutes	20-25
Cure Time	hours	4 at 25 ºC
Specific Gravity		1.31
Properties after full cure – 21 days at 23ºC measured on 2 mm cured sheets		
Durometer Hardness	Shore A	30
Tensile Strength	Psi	170
	MPa	1.2
Elongation to Break	%	105
Adhesion via Peel Test – 7 day cure at 23ºC		
	Cohesive failure, %	pli
PPO	100	18-25 range
Anodized Al	100	14-24 range
Glass	100	15-27 range
Tedlar®	100	14-31 range

DESCRIPTION

Dow Corning® PV-8301 Fast Cure Sealant is designed to provide long-term bonding and protection against moisture, environmental degradation, mechanical and thermal shock where cure speed is critical. It is recommended specifically for structural bonding to attach typical PV substrates.

HOW TO USE

Mixing

The Dow Corning® PV-8301 Catalyst is designed to be used with Dow Corning® PV-8300 Base in a mix ratio of 10 parts base to 1 part catalyst by weight. Suitable meter/mix equipment should be equipped with gear or piston metering pumps for base and catalyst, and a static mixer. Mixing via dynamic mixers is currently not recommended.

Curing Conditions
Dow Corning PV-8301 Fast Cure Sealant cures at room temperature and develops adhesion rapidly to metals, glass and plastic substrates. Adhesion is normally good to most substrates (See Note) without the use of primer, or of surface activation methods. If enhanced adhesion properties are needed, contact your local Dow Corning technical support for primer and surface treatment recommendations.

Note
Adhesion to low energy surfaces like polypropylene can be achieved via use of primer or plasma treatment.

Humid Resistance
Dow Corning PV-8301 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 WWW.DOWCORNING.COM, OR FROM YOUR DOW CORNING REPRESENTATIVE, OR BY CALLING YOUR GLOBAL DOW CORNING CONNECTION.

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 between 5°C to 100°C (41°F to 212°F) in the original unopened containers, the usable life from the date of manufacture is listed below:

Dow Corning® PV-8300 Base - 12 months

When stored at or below 25°C (77°F) in the original unopened containers, the usable life from the date of manufacture is listed below:

Dow Corning® PV-8301 Catalyst Black - 14 months and
Dow Corning® PV-8301 Catalyst Clear – 12 months

PACKAGING

Dow Corning PV-8301 Fast Cure Sealant is 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, www.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 customer's tests to ensure that Dow Corning's 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.

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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.

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DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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