Technical Data Sheet

DOWSIL™ PV-7326 Potting Agent

Potting material offering thermal management and protection from environmental elements for photovoltaic (PV) junction boxes

Features & Benefits

- Tailor made product for PV J-box potting
- Good electrical insulation
- Good heat dissipation with a thermal conductivity of >0.5 W/mk
- Good adhesion performance to J-box substrate without the use of a primer
- Compatible with most frame and adhesive sealants
- UL 94 V0 rated
- Neutral alkoxy silicone sealant
- Fast room temperature cure

Composition

- Two-part, 6:1 (by weight) mix ratio silicone elastomer supplied as flowable liquid

Applications

- Potting of solar module junction boxes

Typical Properties

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

CTM[1]	Properties	Unit	Result
	Catalyst		
0176	Color		Translucent
0050	Viscosity	centipoise	210
0097B	Specific Gravity		0.94
	Base		
0176	Color		White
0050	Viscosity	centipoise	4842
0097B	Specific Gravity		1.48

1. CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

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Typical Properties (Cont.)

CTM	Properties	Unit	Result
	Mixed		
0176	Color		White
0050	Viscosity Mixed	centipoise	3300
0099	Durometer, Shore A		37
0022	Density[2]	g/cm^3	1.42
0055	Working Time[3]	minutes	7.6
0092	Non-flow Time	minutes	38
	Room Temperature Cure Time[4]	hours	75 @ 25ºC
0114	Dielectric Strength	kV/mm	25.25
0249	Volume Resistance	Ω.cm	1.08E+15
	Thermal Conductivity	watts/meter °K	0.54
	UL Ratings		
UL 94	Flame resistance		V0

2. Cured.
3. Pot life, time to double initial viscosity (initial mixed viscosity for two-part products) at room temperature.
4. Cured at 25°C and 50% RH.

Description

DOWSIL™ PV-7326 Potting Agent is supplied as two-part liquid component kits comprised of base and catalyst to be mixed in a 6:1 ratio by weight OR 4:1 ratio by volume. It is suitable for manual mixing or automated mixing and dispensing. When liquid components are thoroughly mixed, the mixture cures to a flexible elastomer.

How to Use

Substrate Preparation

All surfaces must be clean and dry. Degrease and wash off any contaminants that could impair adhesion.

DOWSIL™ PV-7326 Potting Agent is supplied in two parts that are mixed in a 6:1 ratio by weight OR 4:1 ratio by volume (base and catalyst).

Both base and catalyst part are moisture sensitive. Please keep opened packaging away from moisture. Catalyst is especially very sensitive to moisture. Purging with dry N2 is suggested when reopening packaging.

DOWSIL™ PV-7326 Potting Agent can be dispensed manually or by using one of the available types of meter mix equipment. Typically, the components are readily mixed with static or dynamic mixers. Automated meter-mix equipment is normally used with high-volume processes. For low-volume applications, manual weighing and simple hand mixing may be appropriate.

Inaccurate proportioning or inadequate mixing may cause localized or widespread problems affecting the pottant properties or cure characteristics. If possible, the potential for air entrapment should be considered during design of the part and selection of a process to mix and dispense the pottant. Subjecting the pottant part to >28 inches Hg vacuum may be necessary to ensure a void-free, protective layer.

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How to Use (Cont.)

It is expected that some settling may occur in the base over time. Therefore, it is recommended that the base be mixed in a pail or drum roller before use and for automated line use, it is recommended that the base be applied from an agitated dispense tank.

It is recommended that the material be mixed, such as with a pail or drum roller upon receipt. The material should then be applied from an agitated dispensing tank.

Working Time and Cure
Working time (or pot life) is the time required for the initial mixed viscosity to double at room temperature (RT). For two-part, condensation cure products, such as DOWSIL™ PV-7326 Potting Agent, the cure reaction begins when the catalyst and base are mixed. As the cure progresses, viscosity increases until the material cures. DOWSIL™ PV-7326 Potting Agent will cure at room temperature, 50% relative humidity and the result is 72 hours.

Clean Up
Extra product can be wiped up with a clean cloth before curing. If the product is cured, mechanical removal can be used.

Useful Temperature Ranges

For most uses, DOWSIL™ PV-7326 Potting Agent should be operational over a temperature range of -45 to 150°C (-49 to 302°F) for long periods.

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

When stored at or below 35°C (95°F) in the original unopened containers, DOWSIL™ PV-7326 Potting Agent has a usable life of 12 months from the date of manufacture.

Storage conditions and shelf life (“Use By” date) are indicated on the product label.

Packaging Information

DOWSIL™ PV-7326 Potting Agent is available in standard pail and drum packaging. Detailed container size information may be obtained from your Dow 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 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.

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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.

dow.com

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