

# DOWSIL™ PV-9001 Backsheet Coating

## Protective silicone coating



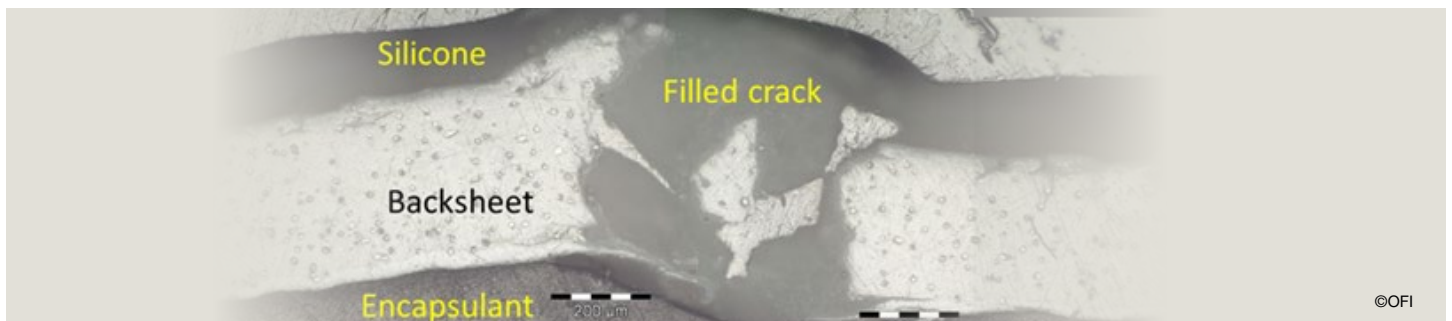
DOWSIL™ PV-9001 Backsheet Coating was developed for protective, durable, and decorative applications in construction and photovoltaics (PV) where high durability, safety and flexibility are required. The high-temperature and UV stability of this coating make it suitable for indoor and outdoor applications. Applied as a coating by brush, squeegee, or spray, DOWSIL™ PV-9001 Backsheet Coating is an efficient and durable solution for both in-field repair of photovoltaic modules that have shown backsheet degradation, and factory-applied backsheet protection.

DOWSIL™ PV-9001 Backsheet Coating cures in ambient conditions into a highly durable elastomer, building up chemical adhesion and acting as an electrical insulator. After curing, it provides restored insulation and protection against water ingress and ultraviolet light. Because of the excellent durability of silicone sealants — with proven stability in outdoor conditions of longer than 50 years — this product offers a long-term, reliable repair solution.

### DOWSIL™ PV-9001 Backsheet Coating

#### Features and benefits

- Reliably fills cracks in the backsheet — including deep cracks
- Restores electrical insulation resistance
- Can be applied by brush or spray in the field — no unit dismantling needed
- Good adhesion on coextruded polyamide (“AAA”), as well as other commonly used backsheets (including those with a PVF, PET or PVDF outer layer)
- Short cure time
- Highly durable material, leading to long lifetime



Tests were conducted at the Austrian Research Institute for Chemistry and Technology (OFI) and Silicon Austria Labs (SAL). It was shown that coating a module featuring deep cracks caused by degradation in the field, led to a restored insulation, that the module retained a high insulation after damp heat aging, and that it passed a subsequent wet leakage test.

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Properties specific to PV applications

Test	Property	Unit	Result
<b>As supplied</b>			
	Cure time at 23°C, 50% RH, 0.4 mm	minutes	75
<b>As cured, after 7 days at 23°C and 50% RH</b>			
ASTM D0149	Dielectric strength	kV/mm	19
ASTM D0257	Volume resistivity	Ohm cm	2.5 x 10 <sup>15</sup>
UL94	Flammability rating		HB
UL746B	Relative Thermal Index (RTI)	°C	105

ASTM: American Society for Testing and Materials

UL: Underwriters Laboratories

Full product information can be found at [dow.com](http://dow.com)

These are typical properties, not to be construed as specifications.

## DOWSIL™ 7094 Flowable Sealant is designed for solar module use as:

- A repair solution when the backsheet shows signs of cracking
- A preventive measure on modules with backsheets that are commonly prone to cracking

This easy application can be done in a workshop or in the field — even on installed modules, with the backsheet facing down.

### To apply:

1. Clean the backsheet surface. The type of cleaning depends on the soiling and on the extent and type of backsheet degradation. In general, the following cleaning procedure is adequate: wipe the backsheet surface with a damp cloth followed by a dry cloth.
2. Apply DOWSIL™ PV-9001 Backsheet Coating with a squeegee, paintbrush or with a spray gun.
3. Immediately smooth the layer with a spatula, exerting some gentle force to push the sealant into the cracks.
4. Leave to cure.



Dow Building Science website:

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Spray application



Smoothing the layer

## For more information

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