

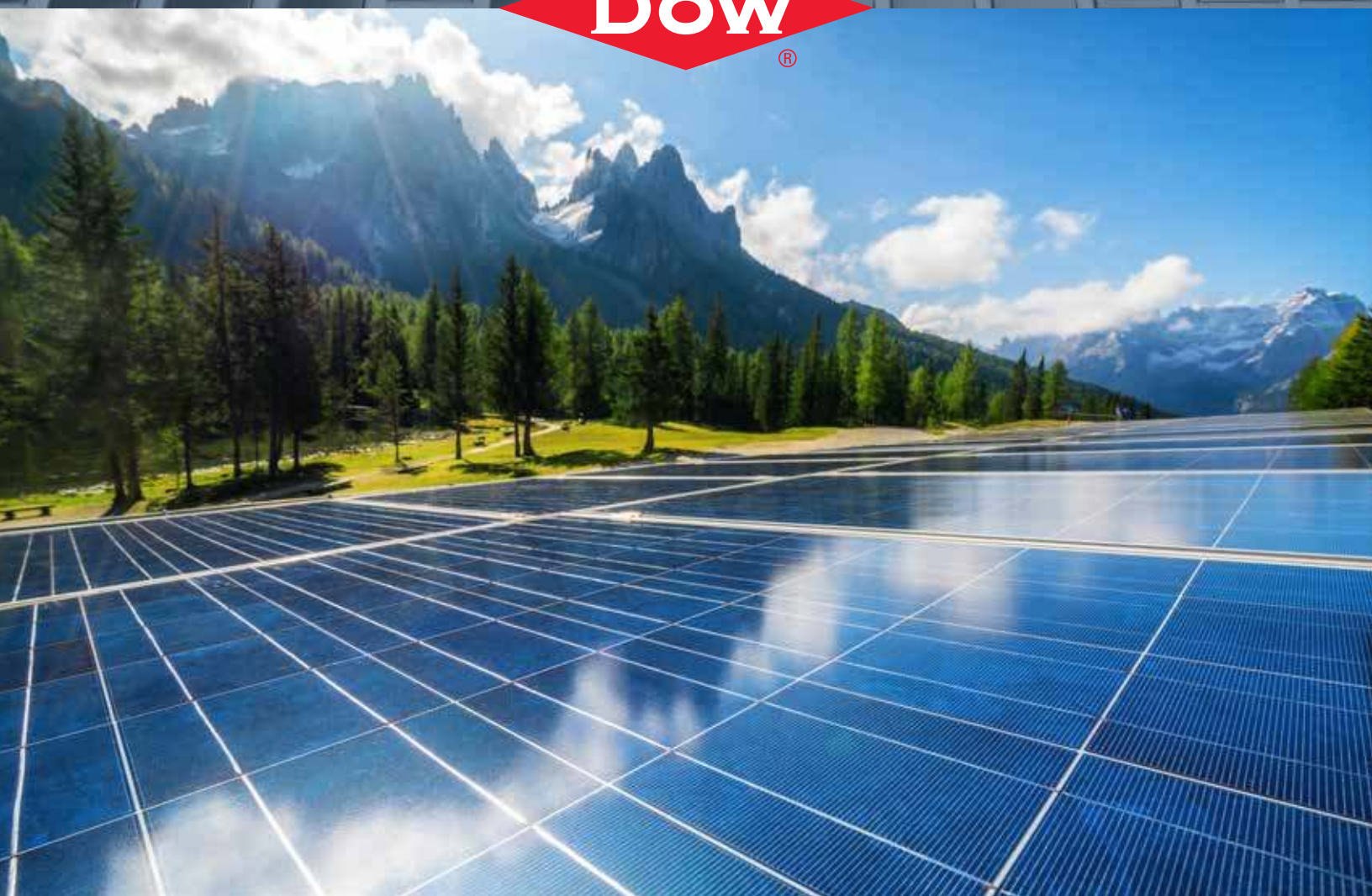
RENEWABLE ENERGY

# Photovoltaic materials selection guide

The DOW logo is a red diamond shape with the word "DOW" in white, bold, sans-serif capital letters. A small registered trademark symbol (®) is located to the right of the diamond.

**DOW**

®





# The power of innovative solutions

As the global photovoltaic (PV) market continues to grow, the demand for durable, reliable and better performing solar modules is critical. Dow delivers a wide base of chemistries and technologies in high-performance materials – tested to meet the specific requirements of the solar industry – that help to create more reliable solar modules.

Built on more than 50 years of expertise, we are collaborating with leading solar companies to improve durability, longevity, and performance of photovoltaic systems. We understand that materials drive innovation and are helping to solve the challenges in module manufacturing by leveraging our silicone and polyolefin chemistries. Our proven materials technologies are enabling PV module manufacturers to explore novel and more efficient designs. The designs for tomorrow's renewable energy needs.

Offering encapsulants and potting for your electronic components, rail bonding, frame sealing and junction box adhesives, repair and protective coatings, and materials for optics, we can help to make your applications more efficient, and more reliable.

Let us help you create modules with longer service life and better reliability. Contact one of our solar materials experts, and let's work together to make the global expansion of solar needed for the world's energy transition a reality.



Name	Consistency as supplied	Viscosity (mPa.s)	Cure system	Relative density (mixed)	Cure time/temperature	Color	Shore A (*Shore 00)	UL ratings
<b>Solar cell encapsulant</b>								
DOWSIL™ EG-1200 Gel	Liquid	1790	2-part addition	1.11	2 hours at 25°C, 1 hour at 32°C	Transparent	*51	–
DOWSIL™ 9955 Encapsulation & Lamination Silicone	Liquid	2800	2-part condensation	0.97	Gel time 9 hours at 23°C	Transparent	10	–
ENGAGET™ PV 8660 Polyolefin Elastomer	Solid pellet	–	Peroxide	0.872	–	Transparent	66	–
ENGAGET™ PV 8669 Polyolefin Elastomer	Solid pellet	–	Peroxide	0.873	–	Transparent	68	–
<b>Electronics encapsulant</b>								
DOWSIL™ EE-3200 Low Stress Encapsulant	Liquid	1700	2-part addition	1.47	3 hours at 25°C, 20 min at 50°C	Dark grey	*43	UL94: V-0; UL746A: HWI PLC4, HAI PLC1; UL746B: RTI 150
SYLGARD™ 160 Elastomer	Liquid	4500	2-part addition	1.61	4 min at 100°C	Dark grey	55	UL94: V-0
DOWSIL™ CN-8760 Thermally Conductive Encapsulant	Liquid	2700	2-part addition	1.6	40 min at 50°C	Dark grey	55	UL94: V-0
DOWSIL™ CN-8760 G Thermally Conductive Encapsulant	Liquid	3200	2-part addition	1.58	30 min at 60°C	Grey	45	UL94: V-0
DOWSIL™ TC-6015 Thermally Conductive Encapsulant	Liquid	4000	2-part addition	2.25	3 hours at 25°C, 30 min at 70°C	Grey	40	UL94: V-0; UL746B: RTI 150
<b>Junction box potting agent</b>								
DOWSIL™ EE-3200 Low Stress Encapsulant	Liquid	1700	2-part addition	1.47	3 hours at 25°C, 20 min at 50°C	Dark grey	*43	UL94: V-0; UL746A: HWI PLC4, HAI PLC1; UL746B: RTI 150
DOWSIL™ TC-6015 Thermally Conductive Encapsulant	Liquid	4000	2-part addition	2.25	3 hours at 25°C, 30 min at 70°C	Grey	40	UL94: V-0; UL746B: RTI 150
<b>Frame sealant and junction box adhesive</b>								
DOWSIL™ 895 Structural Glazing Sealant	Paste – no slump	–	1-part condensation	1.43	2.2 mm in 24 hours at 25°C	Black or white	38	UL94: HB (3 mm), V-1 (5 mm); UL746A: HWI PLC4, HAI PLC2; UL746B: RTI ES 140, RTI MI 105, RTI MS 115; UL746C: f2
DOWSIL™ SJ 268 Black Sealant	Paste – no slump	–	1-part condensation	1.43	Tack-free time 40-60 min at 25°C	Black	30	–
DOWSIL™ S122 Fast Cure Bonding Adhesive	Paste – no slump	–	2-part condensation	1.34	Snap time 5 min at 25°C, full cure 7 days	Black or white	40	UL94: HB (1mm), V-1 (5mm); UL746A: CTI PLC0; UL746B: RTI 105
<b>Rail bonding adhesive</b>								
DOWSIL™ 993 Structural Glazing Sealant	Paste – no slump	–	2-part condensation	1.30	Tack-free time 90 min at 25°C, full cure 7 days	Black	40	UL94: HB; UL746A: HWI PLC2, HAI PLC0, CTI PLC0; UL746B: RTI 105
DOWSIL™ 993N Structural Glazing Sealant	Paste – no slump	–	2-part condensation	1.34	Snap time 20-60 min at 25°C	Black	39	–
<b>Repair and protective coating</b>								
DOWSIL™ 7094 Flowable Sealant	Viscous liquid	28000	1-part condensation	1.30	1 mm in 7 hours at 23°C	White	19	UL94: HB; UL746B: RTI 105
<b>Decorative glass coating</b>								
SILASTIC™ LCF 5136 Liquid Silicone Rubber	Liquid	13000	2-part addition	1.13	10 min at 120°C	Black	25	–
<b>Moldable silicone for concentrating optics</b>								
SILASTIC™ MS-4002 Moldable Optical Silicone	Viscous liquid	25000	2-part addition	1.08	25 sec at 150°C	Transparent	84	UL94: HB (1mm), V-1 (8mm); UL746A: HWI PLC3 (3mm), HAI PLC0, CTI PLC0; UL746B: RTI 150; UL746C: f1

Silicone

Polyolefin







## Learn more

We bring more than just an industry-leading portfolio of advanced organic and silicone-based materials. As your dedicated innovation leader, we bring proven process and application expertise, a network of technical experts, a reliable global supply base and world-class customer service. To find out how we can help to support your applications, visit [dow.com/solar](https://www.dow.com/solar) or contact your Dow representative.

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