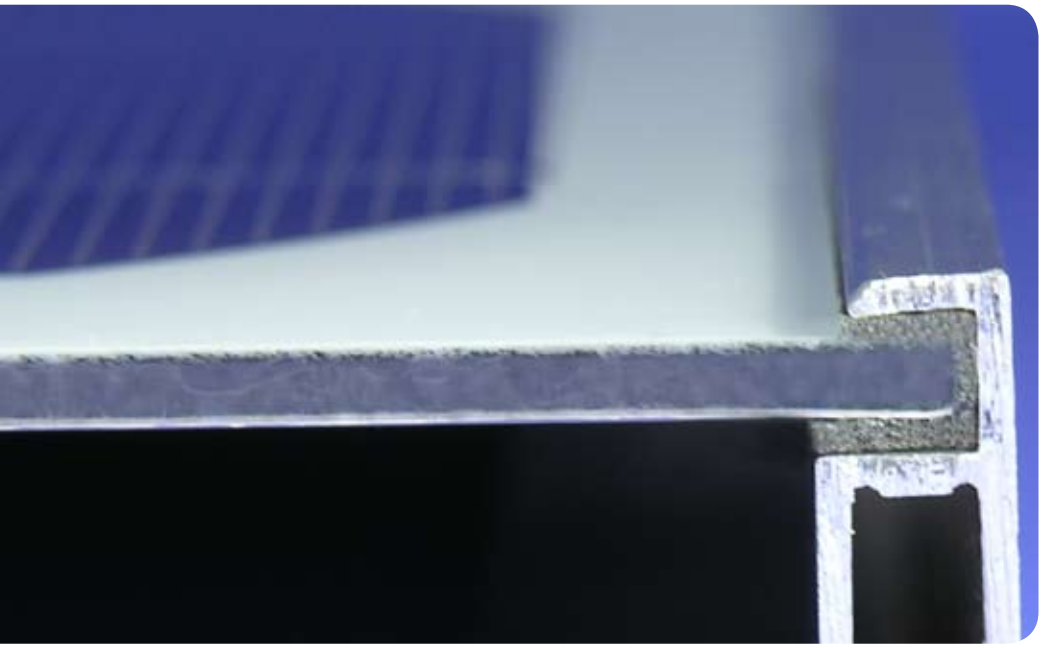
SolarBond™ V8800/V9000 Series



PV Module Frame Tape

Bonding Solutions for the Construction of Photovoltaic Modules

Typical Applications

- Perimeter sealing and bonding of photovoltaic laminate to the aluminum frame

Features & Benefits

- Black or white polyurethane foam core for any module design
- Firm elastic foam core designed to facilitate installation
- Foam core insures separation of frame from delicate module glass and backsheet laminate components
- High strength acrylic adhesive provides fast bond allowing for immediate module handling
- Foam core with acrylic adhesive provides for clean sight line along frame edge on module surface

Product Description

SolarBond™ V8800 and V9000 Series are high performance bonding tapes constructed with a cross-linked polyurethane elastomeric foam core with durable pressure sensitive acrylic adhesive on both sides. These products are available in roll form with an easy to remove plastic liner.

Polyurethane Elastomeric Foam Core

A closed cell high density (480kg/m^3 / 30 lbs/ft^3) foam core ensuring module and frame maintain isolation, for electrical and shock/stress dissipation. While elastic to allow easy wrapping around the module perimeter, the V8800 and V9000 Series tapes are engineered to be relatively firm to facilitate frame installation. Available in black (V8800) or off-white (V9000), these products are designed for long life and excellent weatherability ensuring your modules will achieve the required ratings and service life.

Note: In normal PV module frame applications the tape is not exposed. However, the V9000 Series (off-white colour) will exhibit yellowing after exposures to high levels of UV.

High Strength Acrylic Adhesive

To ensure easy module fabrication with good quick stick, this SolarBond™ Series features an acrylic adhesive systems designed with high shear strength properties. Once in place, the adhesive bonds instantly eliminating the need to wait for the sealant to cure like most wet applied frame bonding materials. This will speed your assembly process, enhance productivity and reduce your costs.

PV Related Certifications

- UL746C – Standard for Polymeric Materials – Use in Electrical Equipment Evaluations

  V8800 and V9000 - Listed. File QOQW2.MH16770.

- IEC 61215 – Crystalline silicone terrestrial photovoltaic (PV) modules – Design qualification and type approval

  Module designs in commercial production have achieved this certification using the V8800 and V9000 series tape as the perimeter frame seal.

- UL1703 – Flat Plate Photovoltaic Modules and Panels

  Module designs in commercial product have achieved this listing using the V8800 series tape as the perimeter frame seal.

SAINT-GOBAIN SOLAR

SolarBond™ V8800 and V9000 Series

Standard Configuration

Product No.	Colour	Thickness mm (in)	Width mm (in)	Length m (feet)
V8830	Black	0.8 (.030)	up to 1420 (56)	61 (200)
V9030	Off-White	0.8 (.030)	up to 1420 (56)	61 (200)
V9062	Off-White	1.6 (.062)	up to 1420 (56)	61 (200)

Release Liners: Standard liner on V8800 is green poly. Standard liner on V9000 is white poly. Other custom liners available with minimum order quantities.

Configurations: Available in full log width or custom width slit rolls. Long continuous length spools or diecut pieces are also available. Contact your Saint-Gobain representative for further information and quotation.

Storage: Material should be stored in its original packaging in a clean, dry, well ventilated area, at room temperature. Under these conditions the shelf life will be a minimum of 12 months from date of sale.

Application Guide: For maximum adhesive performance, prepare the surface by removing dust, wax, soap, and oily films with a cleaning solution. A typical cleaning solvent is a 50/50 mixture of isopropyl alcohol and water.

The greater the adhesive-to-surface contact (known as wet out), the better the adhesive bond strength. Apply the tape to the module edge, with the liner on firmly rub down insuring firm contact on both sides of the laminate surface. Remove the liner just prior to bonding the frame. If necessary, water may be used to lubricate the exposed adhesive surface facilitating the frame installation. Moderate amounts of clean tap water will not adversely affect the ultimate adhesion strength.

Technical Data

Property	Description	Unit	Typical Value V8800	Typical Value V9000
Static shear failure test	25mmx25mm overlap sample, 1 kg load, t° ramp up at 0.5°C min. Max. t° before failure			
	Aluminum/Glass	°C (°F)	200 (392)	200 (392)
	Aluminum/Backsheet		199 (390)	200 (392)
Dynamic shear test	25mmx25mm overlap sample, tested @ 12.5mm/min rate			
	Glass/Aluminum	kPa (psi)	1,145 (166)	648 (94)
	Glass/Backsheet		1,131 (164)	634 (92)
90° Peel adhesion	25mm wide sample, tested @ 50mm/min rate			
	Aluminum	N/cm (lb/in)	8.0 (4.6)	3.3 (1.9)
	Glass		4.8 (2.7)	2.1 (1.2)
	Backsheet		5.0 (2.9)	3.7 (2.1)
Pluck resistance	Backsheet samples 25mm x 75mm were prepared with tape around the edge. Sample was inserted in aluminum frame, then removed at a rate of 12.mm/min	N/cm (lbs/in)	89 (51)	65 (37)

Dynamic Shear Test

Typical values are not guaranteed and will differ from lot to lot. For specification writing contact our Technical Service Department.

Saint-Gobain in the Solar Market

As one of the world's largest and most sustainable corporations, Saint-Gobain is speeding up its growth in the field of renewable energies. Today Saint-Gobain Performance Plastics provides the most comprehensive range of polymeric materials and engineered solutions for your module manufacturing needs. We continue to develop new products with outstanding performance and improved production efficiency to help you achieve grid parity. As your strategic partner, Saint-Gobain will work closely with you to deliver innovative products for solar modules that are cost effective, efficient and long lasting.

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