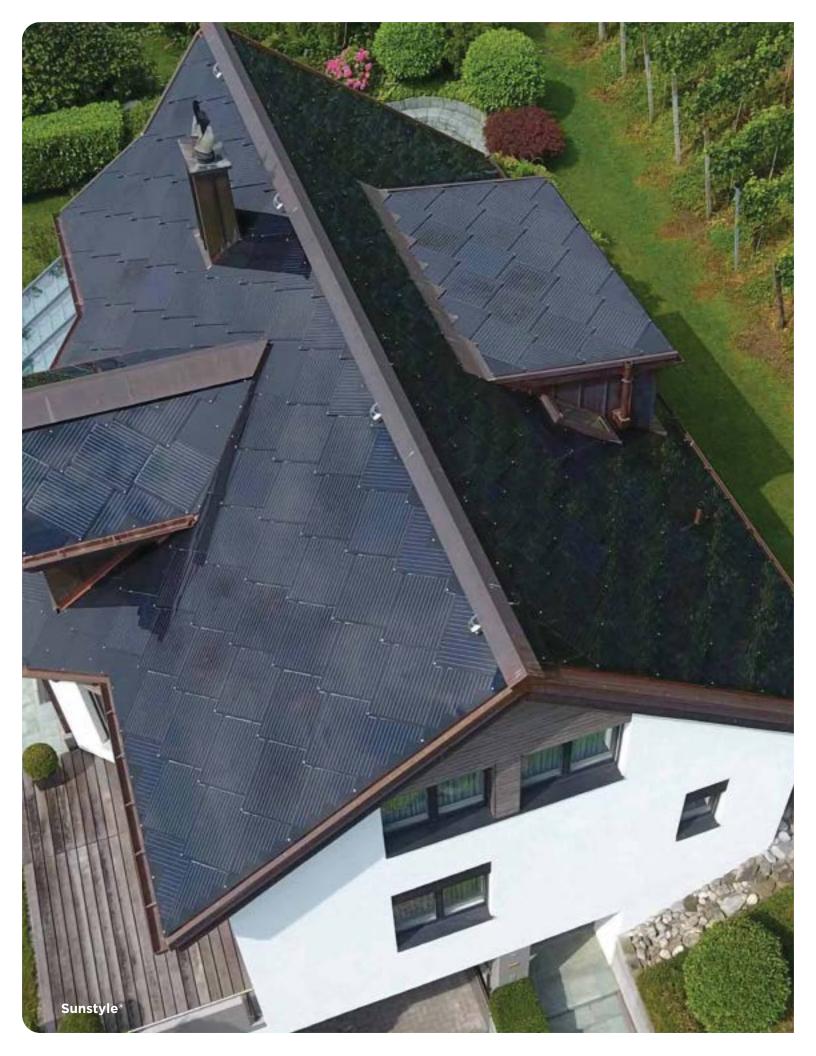


Solar Roofing Selection Guide











Innovative solar Roofing Solutions for every Style & Budget

Since 1904 CertainTeed® has supported generations of builders, roofers and contractors in building beautiful, comfortable, and lasting homes. Now we're applying that experience and imagination to top it off with solar solutions that improve performance, impact sustainability and accentuate style.





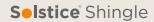
Enhance Your Home with Sleek Solar Solutions

Embrace solar energy without compromising on your home's curb appeal. CertainTeed offers three innovative solar products to suit your budget and your eye.





Sunstyle® by CertainTeed's edgeto-edge dragon-scale design was inspired by traditional Swiss architecture that is both stunning and sustainable.



Our sleek Solstice® Shingles combine all the benefits of solar energy with a sophisticated, seamless look that integrates directly with the roof shingles.





Solstice Panel

Most economical way to go solar with complete peace of mind backed by CertainTeed`s 25-year umbrella coverage that covers the entire solar system and asphalt shingle roof without voiding asphalt shingle warranty when installing solar.







Modern Solar Solutions that Enhance Your Home's Charm

SunStyle by CertainTeed delivers maximum solar efficiency across every angle and slope with premium photovoltaic cells in a fully tiled roof system. This innovative solution complements both modern and historic architecture perfectly.

SunStyle Benefits	Classic Solar Panels
Uniform Aesthetic	Partial Roof Coverage
Smooth & Textured	Smooth
Color-coating Option	No Color-coating
Frameless	Metal-framed
Certified BAPV & BIPV	BAPV-only

SunStyle is certified to the highest UL Building & Construction standards for Fire, Wind Resistance, and Hail.



Winner of Architect's Newspaper Best of Products 2024





Proven Track Record

15 years of global success is now combined with CertainTeed's roofing legacy.

High Performance

110 Watts per active tile and exceptional durability in all weather conditions, including hail, snow, and high winds.

Safety and Reliability

Class 4 Impact-rated and class A fire-rated for safety, with a 25-year tile guarantee and power performance warranty (10 years at 90% output, 25 years at 80%).

Join the clean energy transition with SunStyle, reducing reliance on non-renewable energy while preserving the aesthetic and heritage of your structure.



Achieve Energy Independence with Elegant Solar Shingles

CertainTeed's Solstice Shingle offers a sleek and beautiful solar roofing solution with superior energy production and durability. Enjoy class 3 Impact Rating and best in class wind resistance ratings, a 25-year production and workmanship warranty, and potential qualification for

a 30% solar tax credit.

Winner of Best Energy Efficient

Product and Best in Show by the

National Association of Home

Builders, Solstice Shingle is the

ultimate solar roofing choice.





Advanced Technology

Electrically and mechanically robust with superior performance even on cloudy days.

Aesthetic Appeal

Mimics traditional asphalt shingles for a seamless, low-profile look.

High Energy Efficiency

Integrated design eliminates bulky panels, preserving your home's curb appeal.

Customizable Installaion

Flexible design suits various roof shapes and patterns.

Resilient

Withstands winds up to 110 mph, suitable for all wind zones, including Florida's high-velocity hurricane zone.

A Roof That Pays For Itself

Solstice Shingle offers homeowners a practical solution and enhanced curb appeal, with a cost comparable to installing a new roof and traditional solar panels.







Choose a Solar System with Assurance

Ensuring your rooftop solar system doesn't void your roof's warranty is important. With standard solar installations you have to rely on 3 different manufacturers for everything on your roof: the roofing shingles, the solar mounting system, and the solar panels. CertainTeed offers you the ability to have your entire rooftop solar system and the

installation workmanship warrantied by the same company.

Any solar system installed utilizing CertainTeed asphalt shingles, mounting hardware and electronics that are part of the AVL, and Solstice Panels will qualify for CertainTeed's "Umbrella Coverage".



- For existing CertainTeed roofs or replacement roofs with CertainTeed roofing products, the entire roof (solar panels, racking, flashing & electronics and CertainTeed Shingles) and Solar installation workmanship are protected by complimentary warranties from one company
- Offered by CertainTeed Solar credentialled contractors
- No warranty finger pointing
 solar and roof shingles are
 backed by CertainTeed
- Solstice Panel and AVL

 approved racking & flashing
 does not void CertainTeed
 asphalt shingle limited warranty
 against manufacturing defects



Peace of Mind is Not Guaranteed. It's CertainTeed.

CertainTeed offers the industry's most reliable warranty, backed by over a century of expertise in roofing and construction. Our commitment to quality extends to our solar panel manufacturing, ensuring durable and reliable products.

Enjoy peace of mind and superior protection for your solar roofing investment with CertainTeed's trusted warranty.



Product Comparison Chart

	SunStyle	Solstice Shingles	Solstice Panels
Warranty	25 years on tile, 10 years at 90% output, 25 years at 80% output	25 years production & workmanship	25 years production & workmanship
Impact Rating	Durable in harsh weather conditions, Class A fire-rated, Class 4 impact rating	Market-leading impact and wind resistance, 110 mph wind rating, Class 3 impact rating	Industry-leading impact and wind resistance,
Power	110 Watts per active tile	High energy efficiency	Top-notch performance
Size	Customizable to fit any roof angle and slope	Seamless integration with asphalt shingles	Uniform and integrates with asphalt shingles
Install Method	Installed directly onto roof sheathing using standard deck screws	Customizable array of shapes and patterns	Fast installation by shingle roofing crews
Price/Payback	Premium pricing, high efficiency with quicker payback	Potential cost savings vs. conventional panels	Cost-effective with streamlined design and permitting

Warranty Disclaimers: *Power output warranties reflect how a module performs under standard lab test conditions. Environmental factors like high temperatures, low-light conditions, and shading contribute to differences in output on the roof as compared with standard lab test conditions. **Any defect in workmanship, detected within the first two (2) years, is the responsibility of the Solar Roofing Specialist.

The Past, Present and Future of Roofing.

Our simple yet cutting-edge design replaces traditional asphalt shingles with sleek, integrated solar shingles, enhancing your home's aesthetic appeal. Enjoy beautiful solar solutions tailored to fit your lifestyle and budget, offering potential cost savings over conventional solar panels. Partner with CertainTeed Residential Roofing to streamline your roofing needs and benefit from a dependable full roof system. Transform your roof

into a powerhouse of efficiency and elegance with CertainTeed Solar, and embrace a seamless, professional finish that's built to last.

Partner with CertainTeed to streamline your roofing needs by purchasing everything you need for the installation from a single, trusted supplier. Simplify your installation process and ensure a cohesive, professional finish.

Get the Credit You Deserve

In 2022, the Inflation Reduction Act increased the solar tax credit to up to 30% for homeowners installing qualified solar energy systems installed before 2032. See the impact of your energy bill within the first month.



Environmental Impact*



Forest Acres



519 Barrels of Oil



5,718 Trees Planted

Get your personalized savings and environmental impact quoted in minutes utilizing Aurora AI

* from a typical 10kW Solstice Shingle system

SunStyle Model M110 870

General Characteristics

Shingle Dimensions	34 1/4" x 34 1/4", 870 x 870 mm
Construction	Glass EVA Cells EVA Glass
Solar Cell Type	PERC Monocrystalline
Glass Thickness	3.2 mm (front) + 3.2 mm (back)
Glass Properties	Tempered Solar Glass
Weight	4.4 lbs/ft², 21.5 kg/m²
Temperature Range	-40° F to +185°F
Junction Box	Renhe or TE Connectivity
Connection Cable	Solar Cable 4mm²
Connection Cable Length	800mm
Connector	MC-4 or TE PV4-S
Frame Material	Frameless
Roof Pitch	2:12 to 16:12

Certifications

PV Module Safety	UL/IEC 61730-1, 61730-2
PV Module Performance	UL/IEC 61215-1, 61215-2
Building & Construction	UL 7103
Fire	UL 790 Class A
Impact	FM4473 Class 4
Wind Resistance	ASTM D3161 Class F
Wind-Driven Rain	TAS 100 (A)
Mechanical Loading	200 psf
Grounding	UL2703

Electrical Properties

Type of Shingle	BIPV & BAPV	
Nominal Output	110 Wp per shingle	
Efficiency	17%	
Open Circuit Voltage Voc	16.1 V	
Short Circuit Current Isc	9.2 A	
Maximum System Voltage	1000 V DC	
Maximum Fuse Rating	15 A	
Electrical Performance at STC: 1000 W/m ² , 25° C, AM 1.5		

Electrical Values (Isc, Voc) Tolerance : +/- 3%

Quality and Warranty

Product Guarantee	25 years
Performance Guarantee	10 years at 90% nominal output
	25 years at 80% nominal output



Photovoltaic Module Safety & Performance

UL/IEC 61730-1, 61730-2

This code specifies and describes the fundamental construction requirements for photovoltaic (PV) modules in order to provide safe electrical and mechanical operation. Specific topics are provided to assess the prevention of electrical shock, fire hazards, and personal injury due to mechanical and environmental stresses.

UL/IEC 61215-1, 61215-2

This standard lays out requirements for design qualifications and type of PV modules that are suitable for long-term operation in general open air climates. This test sequence of UL/IECv61215 is to determine the electrical and thermal characteristics of the module and to show, as far as is possible within reasonable constraints of cost and time, that the module is capable of withstanding prolonged exposure in climates described in the scope.

Building & Construction (UL 7103)

Fire Classification - Class A

A roof fire protection is rated in UL790 as varying class: class C for light protection, B for moderate, and A for evere. SunStyle has met class A. Our roof assembly affords the highest level (severe) of fire protection. Key tests to provide fire classification of roof covering materials and systems are the Spread of Flame Test, Intermittent Flame Test, and Burning Brand Test.

Wind-Driven Rain - TAS 100 (A)

TAS 100 (A) is a Testing Application Standard (TAS) where the test procedures determine whether a soffit ventilation and a continuous or intermittent ridge area ventilation system installed within a discontinuous roof system, consisting of an underlayment and a prepared roof covering, provides sufficient wind driven rainresistance to allow minimal water infiltration through the soffit and ridge area vent during a predetermined test period. In short, the roof will be leak-proof.

Wind Resistance - ASTM D3161 Class F

To hold up to winds, a series of wind tests are performed in ASTM D3161, which is a two-hour test duration of wind hitting a roof with classes rated from A (for 60 mph) to D (for 90 mph) and F (for 110mph). SunStyle shingles passed Class F, the highest wind rating.

Hail (Ice Ball) - FM 4473 Class 4

Under UL 7103 this FM 4473 test standard is applied to roof covering materials with various size ice balls shot multiple times at the roof covering. SunStyle's Class 4 rating is the highest rating and requires shingles do not crack after repeated terminal velocity hits by a 2" ice ball. This impact class can help lower insurance rates for homeowners.

Mechanical Loading - UL 7103 Section 31

Certified to UL7103 Section 31. Additionally, SunStyle has a mounting solution that supports up to 200 psf Design Load.

Grounding - UL 2703

SunStyle is certified under UL 2703 to not require grounding due to no metal casing in the system. UL 2703 requirements cover all ground/bonding paths and SunStyle's mounting system and roof assembly comply with this standard.

Solstice Shingle 70W

General Characteristics Standard Test Conditions: 25° C, 1000 W/m2, AM 1.5

Standard rest conditions. 25° C, 1000 W/mz, 74 F 1.5	
Maximum Power (Pmax)	70 W
Voltage at Maximum Power	7.8 V
Current at Maximum Power	9.0 A
Open Circuit Voltage (Voc)	9.5 V
Short Circuit Current (Isc)	9.4 A
Maximum System Voltage	600 V
Series Fuse Rating	15 A
Temp. Coefficient of Pmax	-0.34 %/°C
Temp. Coefficient of Voc	-0.26 %/°C
Temp. Coefficient of Isc	+0.04%/° C
Normal Operating Cell Temp. (NOCT)	53.6° C
Active cell efficiency	19.85%
PTC	62.6 W
Power Performance Tolerance +/- 5% All other electrical characteristics within +/- 10%	

Solstice Panel Half-Cell 400W

General Characteristics		
Nominal Output (Pmpp)	W	400
Voltage at Pmax (Vmpp)	V	31.00
Current at Pmax (Impp)	Α	12.92
Open Circuit Voltage (Voc)	٧	37.15
Short Circuit Current (Isc)	Α	13.55
Output Tolerance	W	-0 / + 5
No. of Cells & Connections		108 half-cells with 3 bypass diodes
Maximum Series Fuse Rating		25A
Cell Type		Monocrystalline
Module Efficiency	%	20.5
Temperature Coefficient of Pmpp	%/C	-0.35
Temperature Coefficient of Voc	%/C	-0.22
Temperature Coefficient of Isc	%/C	+0.05

Mechanical Characteristics

Tested and Passed Temperature Range	-40 to +85° C
Exposed Area	46" x 13-5/8"
Weight	12.7 lb (2.3 lb per sq ft)
Cell	Monocrystalline PERC
No. of cells and connections	14 in series
Bypass Diode	2 per shingle
Design Load	+2400/-1600 Pa
Wiring	12 AWG PV wire
Connectors	Renhe RHC2
Minimum Roof Pitch	2/12"

Mechanical Characteristics

Glass	Glass: 3.2 high transmission, tempered
Frame	Anodized aluminum (Black)
Junction Box	IP68
Output Cables	4 mm2 (12AWG) PV Wire, Length 1.2m (47.2")
Connectors	Polarized MC compatible
Weight	45.2 lbs (20.5 kg)

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