



SunSteel™ Solar Roofing — Frequently Asked Questions

Whether you're an architect, contractor, building owner, or project developer, integrating solar into a metal building raises important questions about design, installation, structural requirements, and project coordination. Below are answers to some of the most common questions about SunSteel™.

What is SunSteel™?

SunSteel™ is a factory-integrated solar roofing system that combines solar modules with compatible standing-seam metal roof panels. Rather than installing a conventional solar array on top of a completed roof, SunSteel™ integrates the solar modules into the roof panels during the manufacturing process. The finished panels arrive at the jobsite ready for installation as part of the building's roofing system.

How is SunSteel™ different from a traditional rooftop solar system?

Traditional rooftop solar is typically installed after the roofing system is complete using racking and mounting hardware. With SunSteel™, the solar modules are integrated into the standing-seam roof panels at the factory. The roof and solar system are therefore designed and installed as one integrated system. This can simplify coordination between roofing and solar trades while providing a lower-profile architectural appearance.

What type of roof is SunSteel™ designed for?

SunSteel™ is designed for compatible Double-Lok™ standing-seam metal roofing. Project-specific roof geometry, dimensions, pitch, and other requirements should be reviewed during the design and qualification process to confirm compatibility.

What types of projects can use SunSteel™?

SunSteel™ is designed for commercial and industrial metal-building and metal-roofing projects.

Potential applications include:

- Warehouses and distribution facilities
- Manufacturing and industrial buildings
- Commercial buildings
- Agricultural facilities
- Pre-engineered metal buildings
- Parking and other canopy structures



It can be considered for both new construction and certain retrofit applications, subject to project and structural requirements.

Can SunSteel™ be incorporated into a new building?

Yes. New construction is an ideal opportunity to consider SunSteel™ early in the design process. By incorporating the solar system during building design, the roof, structural system, electrical requirements, and solar array can be coordinated together rather than designing and installing the solar system after the building is complete.

Can SunSteel™ be used for a retrofit?

Potentially. SunSteel™ can be used in certain retrofit applications, including metal-over-metal roofing projects. The existing structure must be evaluated to determine whether it can accommodate the additional roof and solar loads. Project-specific engineering is required before determining whether a retrofit is appropriate.

Does SunSteel™ require roof penetrations?

No. The solar modules are integrated into the metal roof panels using a factory process that does not require penetrations through the roof panel. This eliminates the need for conventional rooftop solar penetrations and helps maintain the integrity of the roofing system.

How is SunSteel™ installed?

SunSteel™ panels are manufactured with the solar modules already integrated into the roof panels. At the jobsite, the roofing contractor installs the panels using the standing-seam roofing installation process. The electrical portion of the system is then completed by a qualified electrician or solar professional, including connections between panels and wiring to the inverter.

Does installing SunSteel™ require a separate solar installation crew?

The roofing portion follows the normal standing-seam roof installation process. A qualified electrician or solar professional is responsible for the electrical scope. This allows the roofing and solar portions of the project to be coordinated without requiring a conventional rack-mounted solar installation on top of the finished roof.

What should architects consider when specifying SunSteel™?

Architects and design teams should consider SunSteel™ early in the project so that the roofing, structural, electrical, and solar requirements can be coordinated. Important considerations include:



- Compatible standing-seam roof system
- Roof dimensions and geometry
- Roof pitch
- Structural capacity and solar loads
- Building orientation and available roof area
- Electrical service and interconnection requirements
- Desired solar system capacity
- Roof finish and color
- Access and maintenance requirements

What should contractors consider during estimating and preconstruction?

Contractors should evaluate the project for roof compatibility, available roof area, building energy usage, structural requirements, and overall project scope. For an initial assessment, basic information such as the project location, building type, roof dimensions, roof pitch, and expected energy usage can be used to evaluate feasibility and develop preliminary system sizing.

How much additional weight does SunSteel™ add to the roof?

SunSteel™ adds additional weight compared with a standard standing-seam roof panel. The current SunSteel Services information identifies approximately 2.8 lb/sq. ft. of additional weight in the areas directly beneath the solar glass. The structural impact should be evaluated as part of the project's engineering and design process.

How is the solar system sized?

Solar system sizing depends on factors including available roof area, building energy usage, roof geometry, location, and project objectives. An initial assessment can be performed using basic building dimensions and an expected energy-use profile. More detailed project and electrical information is needed as the design progresses.

Does SunSteel™ affect the appearance of the building?

SunSteel™ has a low-profile design because the solar modules are integrated directly into the roof rather than mounted above it on conventional racking. This can provide a more uniform architectural appearance, which may be particularly important for commercial, industrial, and architecturally visible projects.

What roof colors are available?

SunSteel™ can be produced using compatible Double-Lok™ panel colors. Lighter finishes, including white or standard Galvalume®, may be recommended because roof temperature can affect solar module performance. Specific finish availability should be confirmed for each project.



How do you maintain a SunSteel™ roof?

SunSteel™ can be maintained using standard roof access and maintenance procedures, along with appropriate solar-module maintenance. Keeping the solar modules free of excessive dust, pollen, dirt, and other debris can help maintain energy production. Cleaning procedures should follow the applicable manufacturer recommendations.

Can you walk on SunSteel™ panels?

Yes, but only in designated areas and using appropriate procedures. Installers and maintenance personnel should follow SunSteel™ installation and maintenance requirements regarding where and how the roof panels can be accessed.

What happens if a solar module is damaged?

SunSteel™ is designed so that individual solar modules can be serviced or replaced without replacing the entire roof panel. Any repair should be performed using the appropriate manufacturer-approved procedures and components.

What kind of wind and hail performance does SunSteel™ have?

SunSteel™ has undergone testing for structural and environmental performance, including wind uplift and hail resistance. Project teams should refer to current SunSteel™ product documentation and applicable engineering reports for the specific performance criteria required for their project.

What warranties are available?

SunSteel™ includes a 10-year product warranty, while the integrated solar modules include a 20-year linear production warranty with a guaranteed minimum production level. Project-specific warranty documentation should be reviewed as part of the specification and contract process.

How long are the solar modules expected to last?

The dual-glass crystalline solar modules used with SunSteel™ are designed for long-term operation and can continue producing electricity for decades. Actual system performance and service life depend on environmental conditions, installation, maintenance, and other project-specific factors. Solar modules are often expected to produce electricity for more than 30 years.

How does SunSteel™ affect project coordination?

One of the primary advantages of an integrated system is the ability to coordinate roofing and solar as part of the same building scope. For design and construction teams, this can



reduce the need to coordinate a conventional rooftop solar installation after the roof is complete and allows solar requirements to be considered alongside the building structure and roofing system from the beginning.

Can SunSteel™ help with a project's sustainability goals?

Yes. Integrating solar directly into a commercial or industrial building can help project teams incorporate on-site renewable energy into the building design from the outset. For projects pursuing sustainability certifications, energy goals, or owner-specific environmental objectives, the solar system can be considered as part of the overall building strategy.

What information is needed to evaluate a SunSteel™ project?

For an initial evaluation, useful information includes:

- Project location
- Building type and use
- Roof dimensions
- Roof pitch
- Roof type
- New construction or retrofit status
- Estimated construction schedule
- Building energy usage or expected energy profile
- Project goals and desired solar capacity

A more detailed roof layout and electrical information will typically be required as the project moves into design and pricing.

When should SunSteel™ be considered in the project?

As early as possible. For architects and design teams, early consideration allows the roof, structure, electrical system, and solar array to be coordinated together. For contractors, evaluating SunSteel™ during estimating and preconstruction can help determine whether solar can be incorporated into the overall building or roofing scope before the project is finalized.

How can I find out if SunSteel™ is right for my project?

Our team can help evaluate the roofing requirements and determine whether SunSteel™ may be appropriate for your commercial or industrial metal-building project.

Request a SunSteel™ quote or consultation today!

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