



Installation of Solar Panels Over an Atlas Shingle Roof

Can solar panels be installed over an Atlas roof?

Yes... Solar or PV (photovoltaic) panels may be installed over Atlas shingle roofs. Atlas recommends that the shingles over which PV panels will be installed be less than 5 years old for optimal longevity. Proper installation of the PV system is critically important to the integrity of your asphalt roof shingles and your roof system. As with any roofing project, consideration of factors such as safety, design, codes, installation, and integration with other building components is necessary to obtain the desired results. Consult the PV system manufacturer and refer to local building codes for specific requirements.

Local codes increasingly contain specific requirements for PV system installation. These requirements should be followed carefully. All PV systems installed on Atlas shingle roofs must conform to state and local building codes and must be installed according to the PV mounting system manufacturer's guidelines and the NRCA Guidelines for Rooftop-mounted Photovoltaic Systems.

What other recommendations does Atlas have for PV system installations?

Other PV Installation Considerations:

- All vertical and horizontal loads from the PV system should be transferred to the building structure without deformation or overloading the roof system or its components.
- Assess the arrangement and location of attic ventilation, gutters, plumbing vents, and other existing roof-mounted equipment to ensure the PV system does not interfere with the effectiveness of other roof system components. Provide sufficient clearance around all roof venting (per local fire code) and regular maintenance.
- In colder climates, consideration should be given to possible drifting snow or ice dams in and around rack mounted PV systems, which may increase roof loads beyond the original design considerations. PV systems should not be installed in areas of the roof susceptible to ice damming.
- Typically, PV systems should be installed concurrently with new asphalt shingles or shortly after a new roof installation. Doing so will reduce the chance of roof deterioration before the useful life of the PV system is reached.
- Proper waterproofing and flashing of mounting locations where the PV system components intersect with or penetrate the shingle layer is critical and must be done carefully to ensure the roof system's long-term watertightness. The PV mounting system manufactures installation instructions and requirements must be followed.
- Consider a semi-annual roof/PV system inspection and maintenance program performed by a professional roofing.

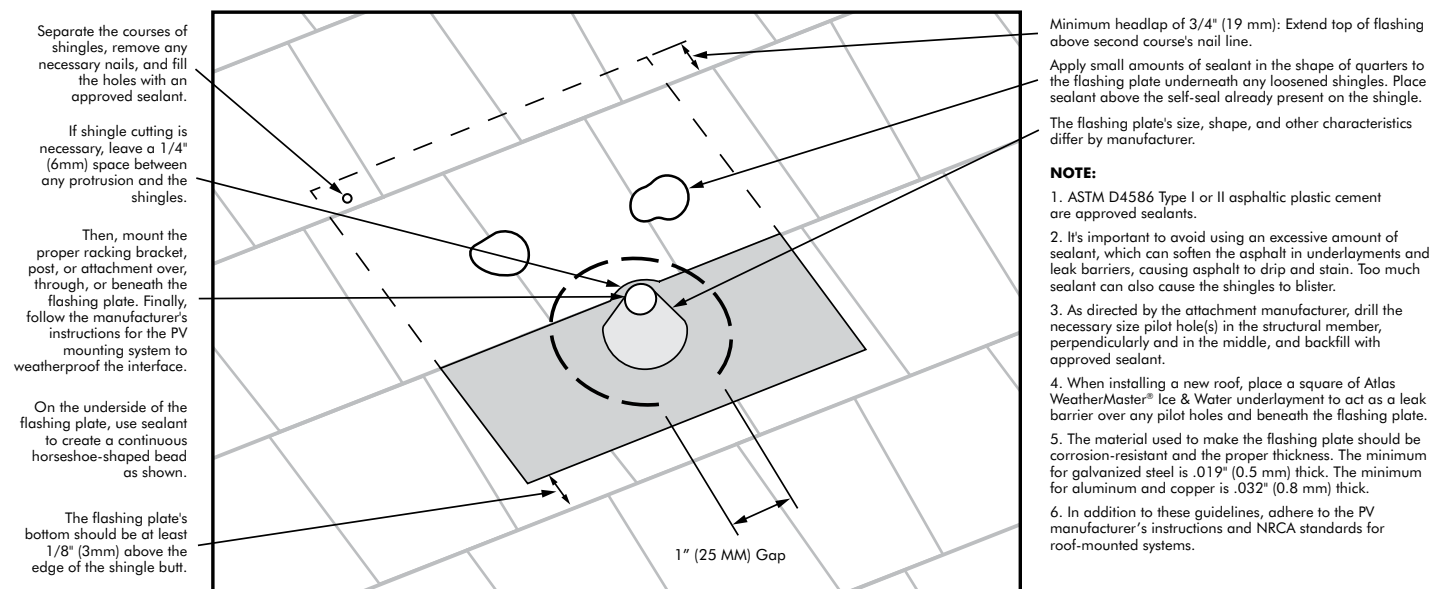
What Types Of PV Systems Can Be Installed On An Atlas Roof?

Each PV system manufacturer and/or installation business has a preferred or exclusive way of fastening the PV system to the roof. PV systems can be divided into three categories based on the various PV mounting techniques used on shingled steep slopes:

1. A mounting system based on rails
2. A mounting system without rails
3. PV system integrated into the roof

While some PV mounting systems can be mechanically fastened to the roof deck directly, others need to be fastened to the rafters. All PV systems mounted on Atlas roofs must abide by local and state building codes and installed in accordance with the PV mounting system manufacturer's instructions, NRCA Guidelines for Rooftop-mounted Photovoltaic Systems, and Atlas' Generic PV Mounting System Detail (shown in the diagram).

Generic PV Mounting System - Roof Penetration Flashing Detail



Does installing solar panels affect any Atlas warranties?

No... Solar panels will not impact coverage under the Atlas shingle Limited Warranty, Atlas Signature Select® Limited Warranty, Signature Select® Pro Limited Warranty nor the Atlas Signature Select® Pro50 limited Warranty. Atlas' shingle warranties warrant to the original homeowner of its shingle products, that this product is free from any manufacturing defects that materially affect the performance or your shingle. Should there ever be an issue with the shingles, no matter the cause, it is the owner's sole expense so that the affected shingles can be accessed for the purpose of inspection, repair, or replacement of the shingles.

Questions?

Contact Paul Casseri, Director of Product Management & Business Development at pcasseri@atlasroofing.com.

Important Legal Disclosure: This Technical Bulletin is not intended to provide a comprehensive list of all the design considerations, installation practices, or maintenance requirements relating to the PV installation on asphalt shingle roofs. This bulletin provides an overview of some important concerns that should be reviewed when considering PV installation. It is important that the roof system and the PV system be constructed to comply with all the requirements of the building code(s), the shingle manufacturer, and the PV module manufacturer. Atlas makes no warranties or recommendations otherwise regarding the suitability or performance of the PV system installed on roofs in conjunction with asphalt shingles.