



Why do they matter?

A sealed roof deck provides a secondary water barrier or a supplemental way to keep wind-driven rain from coming through the deck joints or seams when the primary roof covering (shingles, etc.) and traditional underlayment are damaged, detached or blown away in severe weather. Insurance Institute for Business and Home Safety research indicates that a sealed roof deck can prevent as much as 90% of wind-driven rain from coming through deck joints and entering your attic. This keeps the equivalent of nine bathtubs of water per minute from seeping through your ceilings and causing costly damage.

What do I need to know?

Roof decks are made with plywood, oriented-strand board, or engineered wood panels with an integrated, water-resistive barrier. Panels are spaced slightly apart to allow the wood to expand and contract (move) in heating or cooling conditions.

There are four different ways to seal your roof deck:

- Cover deck panel seams with self-adhering modified bitumen flashing tape or flexible flashing tape.
- Attach a second layer of either Type II (#30) or Types III and IV (#30) felt underlayment secured with button cap nails spaced at 6" along the edges and 12" in the field.
- Apply a complete layer of a self-adhering membrane (ice and water shield) across the entire roof deck.
- Apply closed-cell polyurethane spray foam adhesive on the underside of the roof deck inside the attic.

Note: Some building codes now require sealed roof decks for new and replacement roofs.

Where do I start?

- Ask your roofer to seal your roof deck and create a secondary barrier water during new construction or when re-roofing so your deck will be protected when exposed to wind-driven rain.

More Resources:

- [Strong Homes - Roof Underlayment Explained](#) (YouTube Video)
- [FEMA P-804, Wind Retrofit Guide for Residential Buildings](#)