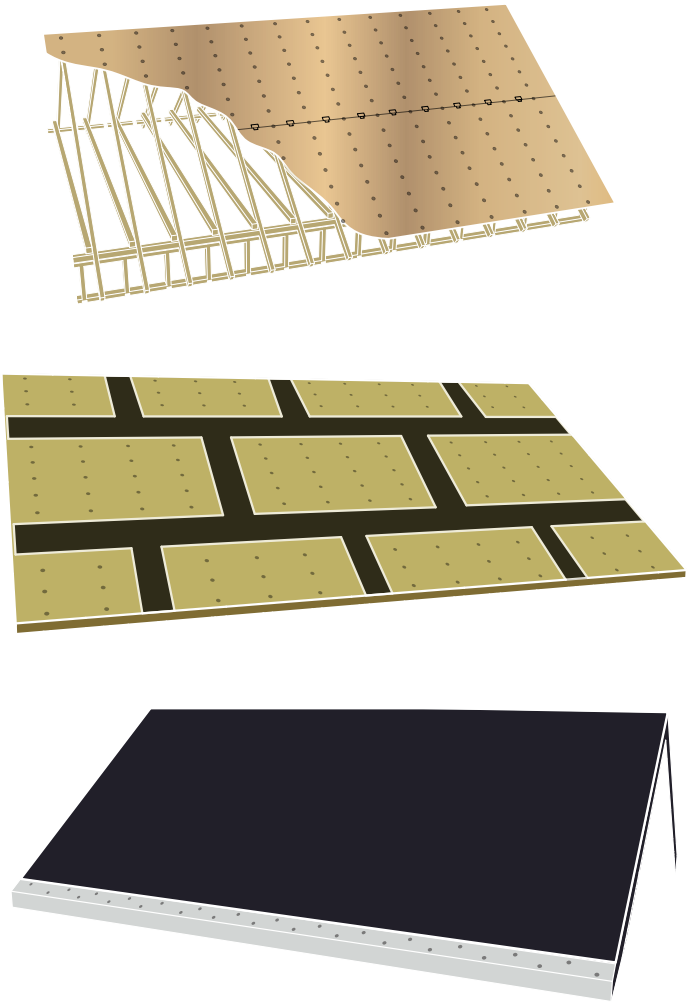
Building a Resilient Roof: The FORTIFIED Approach to Hurricane and Hail Protection

A FORTIFIED Roof is built to withstand strong winds, wind-driven rain and hail. It reduces potential rainwater entry into a home by 95%. FORTIFIED goes beyond current building code requirements to ensure that your home performs better during a storm and resists damage. A FORTIFIED Roof can be installed on new homes or as an upgrade to an existing home.

REQUIREMENTS

- **Roof deck attachment:** FORTIFIED requires the use of 8D ring shank nails. Ring shank nails have a series of raised rings or spirals along their shafts, which double the wind uplift resistance of the roof.
- **Roof deck thickness:** The roof deck is the layer of plywood or oriented strand board that goes over the framing. These panels and boards must meet the minimum thickness requirements for your area.
- **Sealed roof deck:** A secondary water barrier seals the gaps between the roof deck sheathing panels. This prevents water from entering the house if the shingles are compromised. A sealed roof deck reduces the amount of water entering your home if the shingles are damaged by 95% according to the Insurance Institute for Business and Home Safety (IBHS).
- A secondary waterproof barrier, or **underlayment**, is laid and nailed to the roof deck above the tape to provide additional protection against rain in the event the shingles are damaged.
- **Drip edge:** The drip edge holds the roof's underlayment in place and becomes the anchor point for the roof cover.
- A **starter strip** is installed along the edges of the roof before shingles. Starter strips are adhesive strips that adhere the first layer of shingles to the underlayment. This keeps subsequent layers of shingles secured to the secondary barrier.
- **Roof cover:** The final layer of a FORTIFIED Roof system is the roof cover. Roof cover materials can include asphalt shingles, metal panels, clay or concrete tiles, and low-slope roof systems. All of these roof coverings can withstand high-wind speeds when installed correctly.



Example of FORTIFIED roof building step including the requirements listed to the left. Illustrations by the LSU AgCenter.

- **Attic vents:** All attic ventilation must prevent wind-driven rain from entering the attic. This can be achieved by using vents designed to survive strong winds or by using covers to protect vents during severe weather.

HAIL SUPPLEMENT

A hail supplement can be added to any FORTIFIED designation level to provide increased protection from hail damage. The supplement requires installing an IBHS-approved impact rated shingle or qualified steep-slope impact rated roof covering. There are additional impact requirements for skylights or solar panels.

IMPLEMENTATION

Meeting the FORTIFIED standard is a simple process that follows five steps.

1. Choose a FORTIFIED Evaluator through the FORTIFIED website.
2. Choose a contractor or roofer.
    - IBHS lists roofers and contractors who have been certified on their website. However, any contractor or roofer can do the work so long as they follow the FORTIFIED standards and work with an evaluator.
3. Start construction on the property.
4. The FORTIFIED Evaluator will work with your contractor to verify that all aspects of construction meet the FORTIFIED standard and to gather documentation.
5. Once the documentation collected by the FORTIFIED Evaluator is audited by IBHS and the property passes the audit, a FORTIFIED designation certificate will be issued.

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