

## Secondary Water Barrier

A Secondary Water Barrier is a backup system to prevent water intrusion (through the joints in the roof decking) into the home in the event of the primary roof covering and underlayment being blown off during a hurricane.

For the South Carolina Safe Home Program, when a home is being upgraded as part of the Program and the roof covering is removed and replaced, one of the following methods of providing Secondary Water Barrier shall be performed:

- (a) All joints in structural panel roof sheathing or decking shall be covered with a minimum 4 inch wide strip of self-adhering polymer modified bitumen tape meeting ASTM D 1970 applied directly to the sheathing or decking. The deck and self adhering polymer modified bitumen tape shall be covered with one of the underlayment systems approved for the particular roof covering to be applied to the roof. See Figure C-1.



Figure C-1

Roof deck joints covered with approved material  
Application of underlayment started at lower end of roof deck.

- (b) The entire roof deck shall be covered with an approved self-adhering polymer modified bitumen sheet meeting ASTM D 1970. This can be used on a dimensional lumber deck.



Figure C-2  
Full Deck coverage = SWB

- (c) An approved self-adhering synthetic underlayment installed in accordance with the manufacturer's installation instructions. No additional underlayment shall be required on top of this sheet. This can be used on a dimensional lumber deck. See Figure C-3

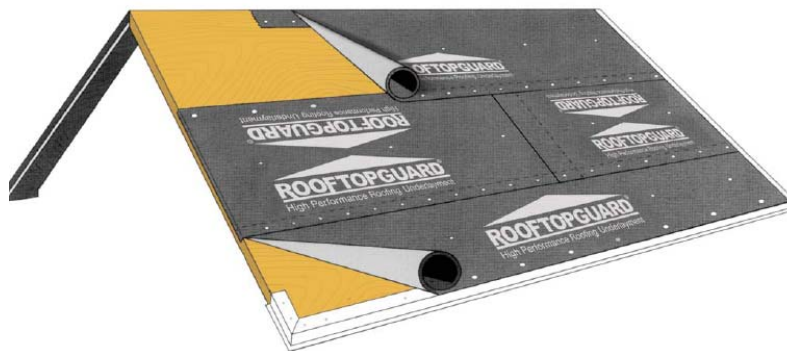
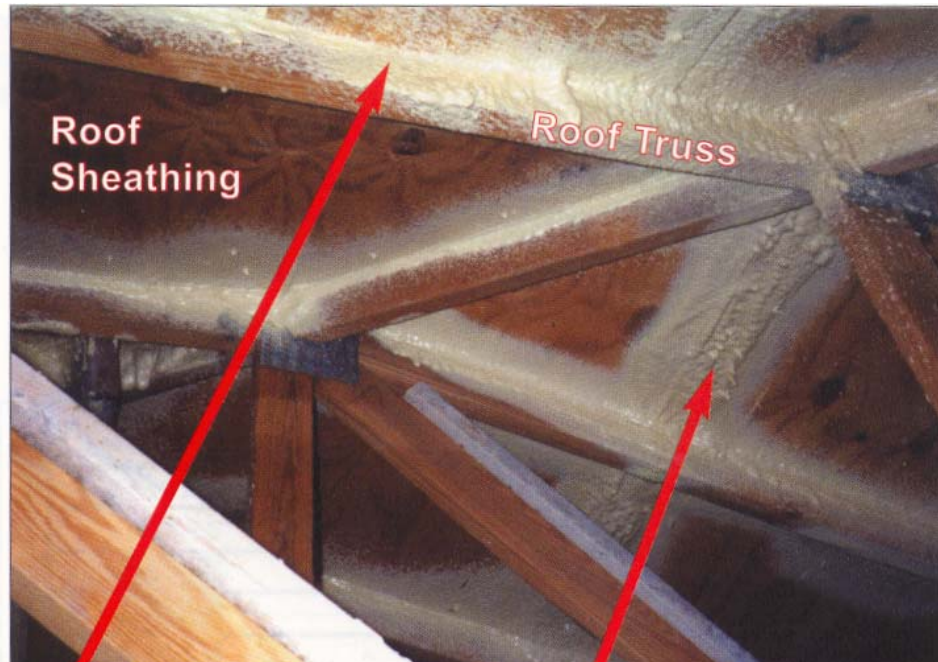


Figure C-3  
Example of Synthetic underlayment

**SEALANT:** Where seams or joints require sealant or adhesive, use only a high quality, low solvent asbestos free plastic roofing cement meeting ASTM D-4586 Type 1 (Asbestos Free), Spec SS-153 Type 1 (Asbestos Free). In areas subject to wind-driven rain where the underlayment will be left exposed to the weather for an extended period of time, seal all seams with a butyl rubber, urethane, or EPDM based caulk or tape sealant.

**FASTENING METHOD:** RoofTopGuard II must be attached to the structural Roof Deck Material using Plastic or Steel Cap roofing nails having a minimum of 1" diameter cap, spaced at 12" on vertical and 14" on horizontal. Staples with plastic caps can also be used. All Plastic, or Steel Caps, must be attached flush with the underlayment surface and both nails and staples must be fastened at a 90 degree angle to the deck. Follow the nailing pattern, which is marked by X's on the product.

- (d) Application of a two-part urethane based closed cell spray-on adhesive to the attic side of the joints between the sheathing shall be deemed to meet the requirements for the secondary water barrier. See Figure C-4.



Roof deck/ truss joint with foam adhesive    Sheathing joints with foam adhesive

Figure C-4

Sprayed Closed Cell Polyurethane Adhesive