SunModo Corp | 14800 NE 65th Street | Vancouver, WA 98682 | 360-844-0048

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SunModo's innovative TopTile® is the world's first PV mounting system that is mounted entirely above the tiles. The patented mount eliminates the need to deconstruct the tile roof, significantly reduces time, and minimizes tile breakage during installation.

The TopTile® product attaches to both curved and flat tiles, and to a wide variety of roof coverings. The TopTile® Mount can be installed on, but not limited to, the following roof coverings: aluminum and steel metal shingles, stone coated metal shingles, terra cotta tile, hollow tile, slate tile, concrete, and clay tiles as well as plastic composites shingles and synthetic Spanish barrel tiles.

Tools Required for Installation

Drill	
Adjustable Torque Wrench, 0 – 35 Nm	
Tape measure	
Chalk line or laser	
Male hex drive impact socket adapter	
13mm (1/2") 6-point Socket	
28mm (1-1/8") 6-point Socket	
SHDIATOOL Diamond Core Drill Bits 1-1/2" or 2" for Hard Stone Concrete Marble Granite Brick Laser Welded Dry or Wet Hole Saws 50mm	

SHDIATOOL Core Drill Bit Adapter 5/8"-11 Thread Male to SDS Plus Shank

T25 Torx/Star Bit

Rafter Installation

An angle grinder can be used to cut a hole in the tile.
The hole should not exceed 2-1/2" x 3-1/2"

Rafter Installation

Use a stud finder to locate the roof rafter.
Walabot DiY 2 shown.

Dow Great Stuff FireBlock Polyurethane Spray Foam,
(or equivalent)

POLYSET® RTA-1 Roof Tile Adhesive and Caulking

Please refer to the Florida Product Approval (FPA)
FL41592-R1 for sealant applications in Florida.

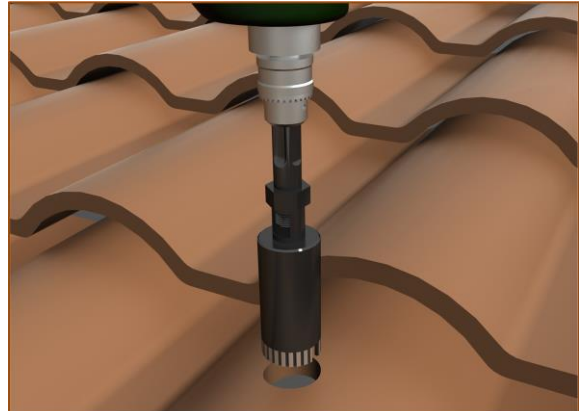Anti-seize compound

(Permatex 80071 or equivalent)

TopTile Deck Mount Installation:

Tile Hole

Locate the desired location of the TopTile stanchion. Using a 2" tile hole saw, drill a hole into the tile. Remove the tile dust from around the hole and the tile dust on the underlayment.	

Underlayment Foam Application

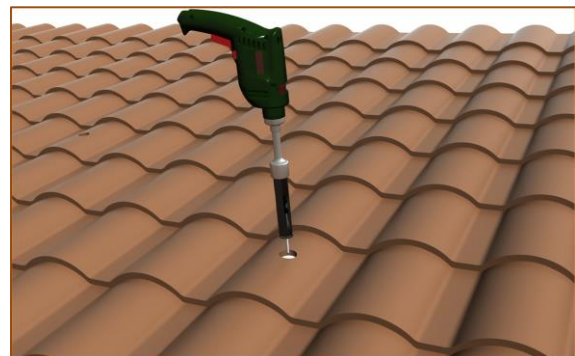|	
After clearing away the tile dust on the underlayment, spray a 4" to 6" circular bead of polyurethane foam sealant onto the underlayment. We recommend POLYSET® RTA-1 Roof Tile Adhesive, or Great Stuff FireBlock, or any polyurethane spray foam approved in your jurisdiction is acceptable. Please refer to the Florida Product Approval (FPA) FL41592-R1 for sealant applications in Florida.	

Stanchion Installation

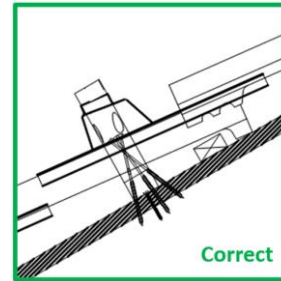|	
Install the Stanchion using a 38mm Socket. Torque until the stanchion and gasket are fully seated.	

TopTile "Correct" Installation
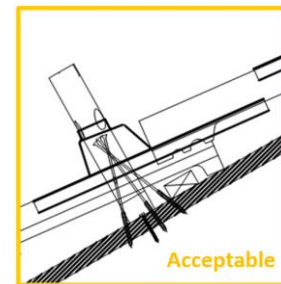
The 3 wood screw stanchion holes are above the tile and below the collar of the EPDM cover on the Flashing. Note: Repositioning the stanchion higher or lower along the tile will increase or decrease the position of the 3 wood screw stanchion holes.	 Correct

TopTile "Acceptable" Installation
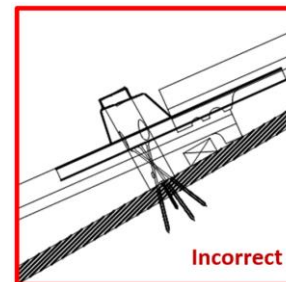
The 3 wood screw stanchion holes are above the tile, and also above the collar of the EPDM cover on the Flashing. POLYSET® RTA-1 Roof Tile Adhesive spray foam can be used to prevent water infiltration.	 Acceptable

TopTile "Incorrect" Installation

The 3 wood screw stanchion holes are below the tile profile. In this position the wood screws cannot be installed. In this situation we recommend adding a 1" Spacer to the stanchion.	 Incorrect

1" Spacer Assembly

If required add a 1" Spacer to the bottom of the stanchion. Remove the EPDM Washer, install the 1" Spacer, and replace the EPDM Washer with the rubber gasket facing down.	

TopTile System

Deck Screw Installation

Install the 3 wood screws into the stanchion using a T25 Torx/Star Bit.

Due to the side driving force of installing the screws into the sides of the stanchion, care should be taken to keep the stanchion plumb.

Stanchion Sealing

Spray a circular bead of POLYSET® RTA-1 Roof Tile Adhesive around the hole and the Stanchion to create a watertight seal.

TopTile System

Flashing Installation

Remove the protective linear covering the butyl tape. Install Flashing over Stanchion and onto the tile.	

L-Foot Attachment

Install the L-Foot with its M8 Bolt onto the top of the Stanchion; use a 13mm hex socket and torque to 13Nm (10 ft-lbs).	

Rail Attachment

Loosely install the L-Foot Adaptor to the L-Foot using the M8 Bolt provided. Install the Rail onto the L-Foot and L-Foot Adaptor. Confirm that the hooks on the L-Foot Adaptor are fully engaged with the hooks on the side of the Rail. Adjust the Rail to the desired height and then secure the Rail to the L-Foot Adaptor using the M8 Bolt; use a 13mm hex socket and torque to 13Nm (10 ft-lbs).	

TopTile System

TopTile Rafter Mount

Step 1: Rafter Locations

Starting at the eave locate the roof rafters. Using a stud finder locate the rafter at the peak of the roof. With these two points established, snap a chalk line outlining the rafter locations on the tile.

Step 2: Cut the Tile

Select the desire location for the TopTile Stanchion. Use an angle grinder to cut a square, or rectangular hole into the tile. In order to achieve a good watertight seal, the rectangular hole should not exceed 2-1/2" x 3-1/2". Remove the tile dust from around the hole and the tile dust on the underlayment.

Step 3: Continue Installation

Continue installing the TopTile using the Deck Mount installation instructions.