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TopTile™ Expansion Anchor Mounting System Product Guidelines



The TopTile Expansion Anchor Mounting System provides the solar PV installer the option of mounting PV racking directly to a flat concrete surface. Beneath most tile roofs in Puerto Rico and Latin America you will find concrete decking, instead of the traditional wood decking commonly used in the United States. In many cases, the roof tiles are secured to the decking with concrete mortar. The TopTile™ Expansion Anchor version of the TopTile™ Mount System

provides the PV installer with the flexibility of successfully anchoring to the underlying flat concrete surface. The expansion anchors have a variety of certifications for different applications. Consult your structural engineer for specific recommendations.

The TopTile Expansion Anchor Kit, K10290-00X, can be ordered in two Stanchion heights, 5" (-005) and 7" (-007). Along with the Stanchion each Kit includes a 3/8-16 X 3/4L Hex Flange Screw and a hand moldable aluminum Flashing with an EPDM boot. Due to the vast variety of Expansion Anchors applications we have elected to not include the Expansion Anchor in the Kit, making the Expansion Anchor a customer supplied component. On the bottom of the Stanchion there is a 5/16-18 UNC tapped hole which allows most 3/8" diameter Expansion Anchors to screw into the Stanchion. Simply remove the nut provided with the Expansion Anchor then thread the Expansion Anchor and washer loosely into the Stanchion. Once the Expansion Anchor is installed into the Stanchion, complete the installation by following the Expansion Anchor installation procedure. If the hand moldable flashing will not fit under the upper adjacent tile, it may be cut down and fitted against the upper tile, then sealed using a good sealant.

Two commonly used Expansion Anchors are the Red Head® Sleeve Anchor and the Simpson Sleeve-All® Red Head's Dynabolt Sleeve Anchor.

Red Head® Sleeve Anchor Specs:

- Mfg. Model Number: #50115
- Effective Anchor Length, In (mm): 3" (76.2)
- Bolt DIA/Threads per In: 5/16"/18



Simpson's Sleeve-All® Anchor Specs:

- Mfg. Model Number: SL37300H
- Anchor Size, In (mm): 3/8 X 3" (9.5 X 76.2)
- Bolt DIA/Threads per In: 5/16"/18
- Min. Embedment, In (mm): 1-1/2" (38.1)
- Max Thickness of Material to be Fastened, In. (mm): 1-1/2" (38.1)



Another attachment option is to use Epoxy Anchor Bolts. No matter your anchor of choice please refer to the Anchor Manufacturer's installation procedure for the correct hole diameter and depth for each of the anchoring system.