

# TILE FASTENING

## FIELD TILE FASTENING

Tile fastening requirements depend upon roof pitch, decking and exposure to varying wind speeds. Where field tile nailing is specified, one nail per tile is used and shall be an 11-gauge, corrosion-resistant box nail and shall penetrate  $\frac{3}{4}$ " into wooden batten strips or through the thickness of the sheathing, whichever is less. #8 screws

may be used as an option whenever nails are required. (See pg. 23). In overhang areas without soffits, to avoid visible nail penetration during direct deck application,  $\frac{3}{8}$ " lath may be installed as a batten, fastened to each rafter to provide adequate thickness for  $\frac{3}{4}$ " nail penetration without protrusion.

TABLE 2 – FOR WIND SPEEDS UP TO AND INCLUDING 80 MPH

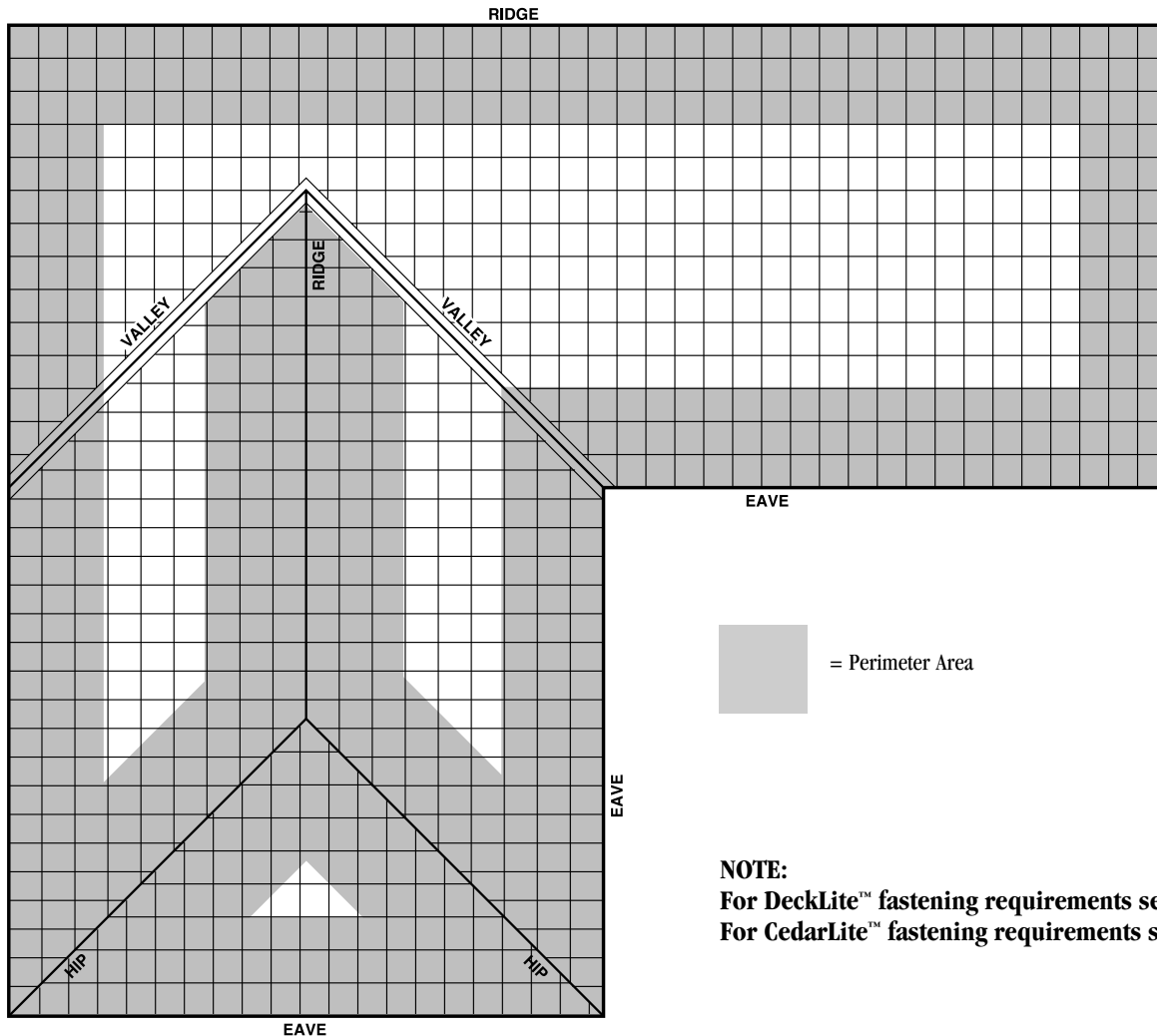
FIELD TILE NAILING*			
Roof Pitch <sup>1</sup>	Solid Sheathing with Battens	Solid Sheathing without Battens	Perimeter Tile and Tile on Cantilevered Areas <sup>2</sup>
3:12 to less than 5:12	Not required	Every tile	Every tile
5:12 to less than 12:12	Every tile, every other row	Every tile	Every tile
12:12 and over	Every tile	Every tile	Every tile

**NOTE:** Slopes over 24:12, nose ends of all tiles must be securely fastened.

\*All Lightweight tiles must be fastened at all pitches, with or without battens.

<sup>2</sup>Perimeter fastening areas include three tile courses but not less than 36" from either side of hips or ridges and edges of eaves and gable rakes.

<sup>1</sup>For roof pitches above 7:12 battens are required.



**NOTE:**  
For DeckLite™ fastening requirements see page 47;  
For CedarLite™ fastening requirements see page 50.

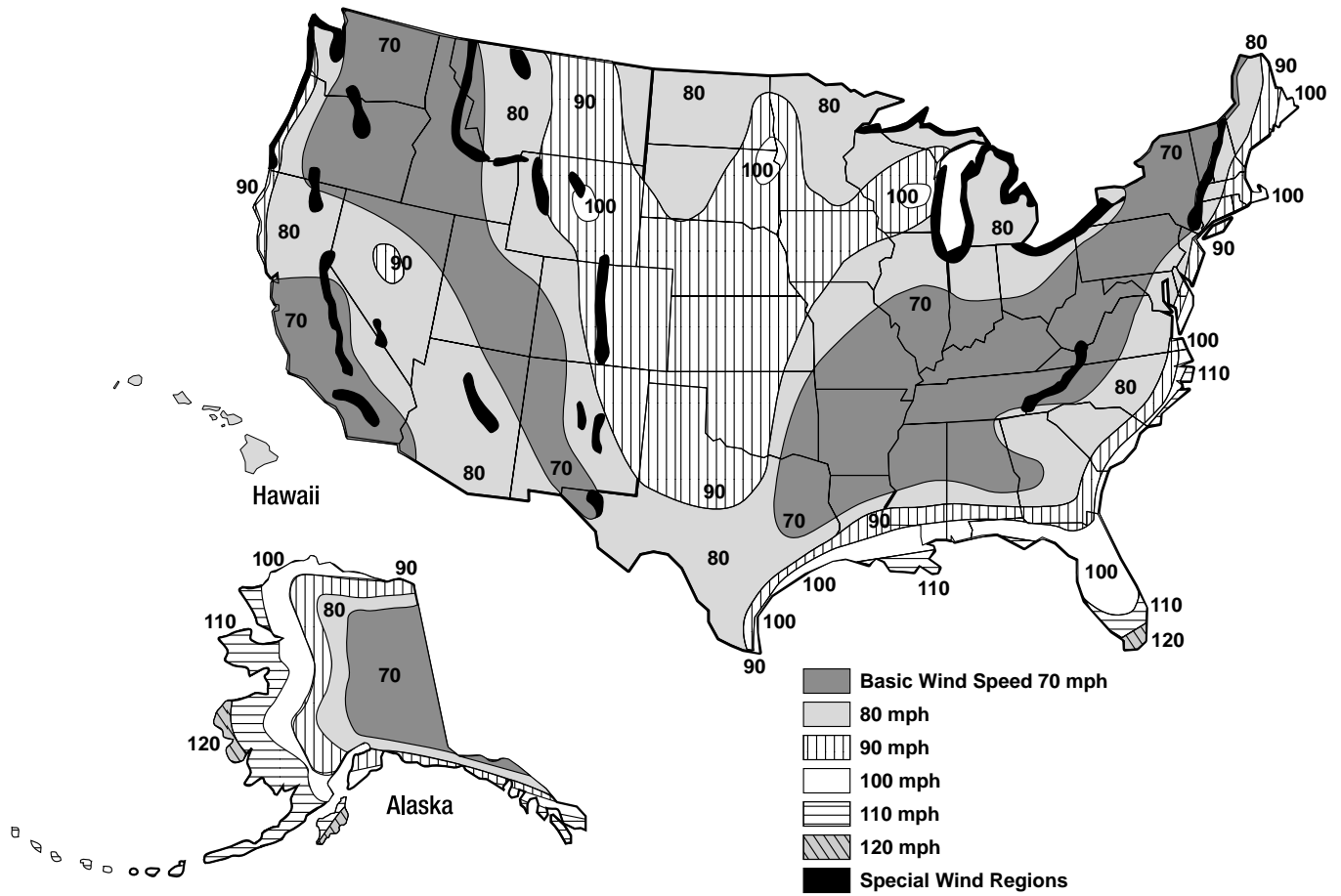
# HIGH WIND AREAS

In areas designated by local building departments as being subject to repeated wind velocities in excess of 80 mph or where roof height exceeds 40' above grade, all tiles shall be attached in

accordance with building codes or as set forth in Tables 3, 4 and 5.



## WIND MAP



### Notes:

1. Values are fastest speeds at 33 feet (10 m) above ground.
2. Linear interpolation between wind speed contours is acceptable.
3. Caution in use of wind speed contours in mountainous regions of Alaska is advised.
4. Wind speed for Hawaii is 80 mph and Puerto Rico is 95 mph.
5. Where local records or terrain indicate higher 50-year wind speeds, the higher speeds shall be used.
6. Wind speed may be assumed to be constant between the coastline and the nearest inland contour.

# MONIERLIFETILE QUICK REFERENCE CHART

TABLE 3 – ATTACHMENT RESISTANCE LIMITATIONS

Profile		Mean Roof Height Limitation*					
		2:12 to 7:12 Pitch			Above 7:12 Pitch		
		90 mph	100 mph	110 mph	90 mph	100 mph	110 mph
<sup>15</sup> / <sub>32</sub> " Decking, Direct to Deck							
Flat	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	33 ft.	17 ft.	60 ft.	60 ft.	44 ft.
Medium	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	33 ft.	17 ft.	60 ft.	60 ft.	44 ft.
High	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	57 ft.	60 ft.	60 ft.	60 ft.
Flat	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Flat	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	52 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Flat	1 - #8 Screw	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	1 - #8 Screw	60 ft.	60 ft.	45 ft.	60 ft.	60 ft.	60 ft.
High	1 - #8 Screw	60 ft.	53 ft.	27 ft.	60 ft.	60 ft.	60 ft.
Flat	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.

\*Height as measured from a point halfway between eave and ridge to the ground

TABLE 4 – ATTACHMENT RESISTANCE LIMITATIONS

Profile		Mean Roof Height Limitation					
		2:12 to 7:12 Pitch			Above 7:12 Pitch		
		90 mph	100 mph	110 mph	90 mph	100 mph	110 mph
<sup>15</sup> / <sub>32</sub> " Decking, with Battens							
Flat	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	44 ft.	23 ft.	60 ft.	60 ft.	57 ft.
Medium	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	44 ft.	23 ft.	60 ft.	60 ft.	57 ft.
High	1 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	56 ft.	29 ft.	60 ft.	60 ft.	60 ft.
Flat	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - 10d Smooth or Screw Shank, 1 Clip	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Flat	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	30 ft.	15 ft.	60 ft.	60 ft.	38 ft.
Medium	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	41 ft.	21 ft.	60 ft.	60 ft.	52 ft.
Flat	1 - #8 Screw	60 ft.	35 ft.	17 ft.	60 ft.	60 ft.	44 ft.
Medium	1 - #8 Screw	60 ft.	60 ft.	31 ft.	60 ft.	60 ft.	60 ft.
High	1 - #8 Screw	60 ft.	34 ft.	17 ft.	60 ft.	60 ft.	43 ft.
Flat	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - #8 Screws	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.

TABLE 5 – ATTACHMENT RESISTANCE LIMITATIONS

Profile		Mean Roof Height Limitation					
		2:12 to 7:12 Pitch			Above 7:12 Pitch		
		90 mph	100 mph	110 mph	90 mph	100 mph	110 mph
<sup>19</sup> / <sub>32</sub> " Decking, Direct to Deck							
Flat	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
Medium	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.
High	2 - 10d Ringshank Nails (18-22 rings per inch)	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.	60 ft.

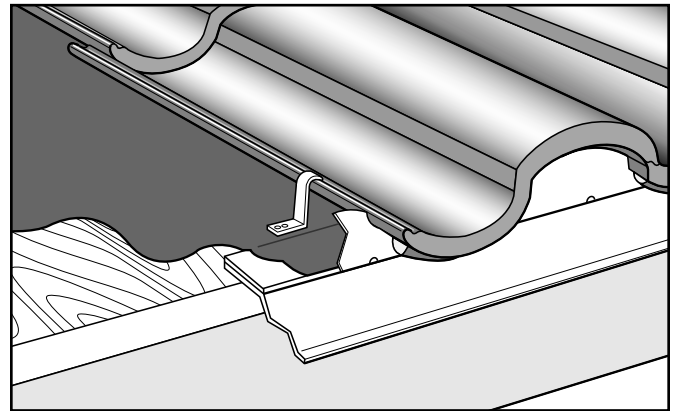
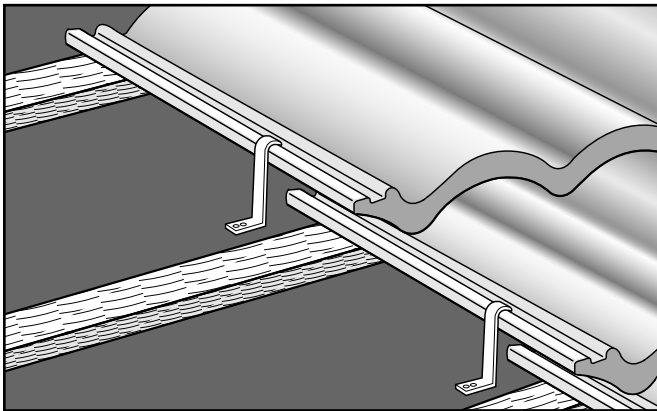
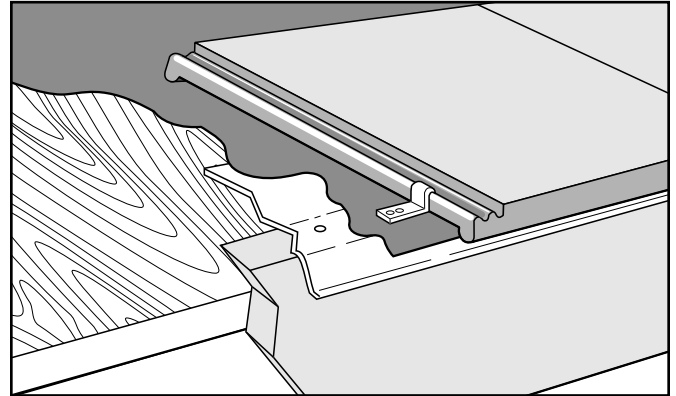
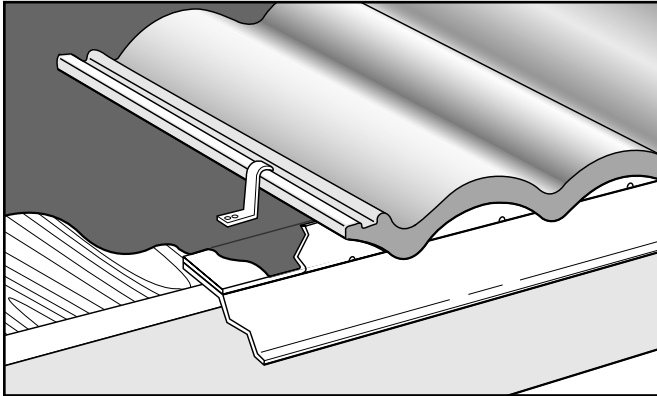
**Note: For mortar or adhesive values please contact SBCCI or Dade County, Florida, building department for uplift capacities. These systems produce product-specific results based on composition and placement of individual products.**



### GRIP CLIP DETAILS AND SELECTION CHART

MonierLifetile Grip Clips vary in size relative to the style of tile selected and to the type of installation. Eave courses employing a raised fascia use a smaller clip than field tile. Longer clips may be required depending on

batten size or use of counterbatten systems. Minimum one fastener per clip. Fasteners must be corrosion-resistant nails or screws penetrating the roof deck 3/4" or through the deck, whichever is less.



### HIGH WIND CLIPS

Profile	Raised Fascia	Field Tile
España®, Tejas, Mission "S"	n/a	9WCMS3 – (3")
Villa	9WCSL34 – (3/4")	9WCVA212 – (2 1/2")
Roma	9WCSL114 – (1 1/4")	9WCSL2 – (2")
Classic 100	9WCSL34 – (3/4")	9WCSL2 – (2")
Capri®	9WCSL114 – (1 1/4")	9WCVA212 – (2 1/2")
Homestead	9WCSL34 – (3/4")	9WCSL2 – (2")
Split Shake®, Shake, Slate	9WCSL34 – (3/4")	9WCSL – (2")
Normandy Slate, Country Series		
Vanguard Roll®	9WCVR112 – (1 1/2")	9WCVR21316 – (2 13/16")
Bermuda Flat	9WCSL34 (3/4")	9WCSL2 – (2")
Sentry Classic, Flat	9WCSL34 – (3/4")	9WCSL2 – (2")
CedarLite™	9WCCL	9WCCLT
DeckLite™	9WCSL34 – (3/4")	9WCSL114 – (1 1/4")

To select upgrade, add the appropriate letter designation to the end of the product number chosen.

Stainless Steel – S

Brass – B

Aluminum – A