DECRA®
METAL ROOFING

Wind Speed and Fastening Schedules – Areas outside of the High-Velocity Hurricane Zone (HVHZ)

For most of the country, except along coastal areas, the minimum wind speed requirement is 90 mph. Outlined below is a fastening schedule with negative uplift pressure and a chart of the corresponding wind speed that the assembly will meet. Please note, DECRA products are warranted up to 120mph.

Assumes: Exposure B, 3:12 to 12:12 Slope, building height less than 30 ft (typical two story home)

	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
FIELD	-14.6 psf	-18.0 psf	-21.8 psf	-25.9 psf	-30.4 psf	-35.3 psf	-40.5 psf
OVERHANG EDGE	-27.2 psf	-33.5 psf	-40.6 psf	-48.3 psf	-56.7 psf	-65.7 psf	-75.5 psf
OVERHANG CORNER	-45.7 psf	-56.4 psf	-68.3 psf	-81.2 psf	-95.3 psf	-110.6 psf	-126.9 psf

Figures provided are taken from the ASCE 7-05. For Exposure C multiply the pressures in the above table by 1.40.

DECK: Joist spacing – 24" OC Max; Material – 15/32" CDX or better plywood or wood plank;
Fasteners – 8d x 2-3/8" long smooth box nail (0.113 shank dia.); Spacing – 6" OC

System	Assembly	Negative Uplift Pressure**
Battens With Nails Tile Shingle Plus Shake	2x2 timber battens secured with one min 16d x 3-1/4" long smooth shank box nail (0.131" shank diameter) per batten intersection with framing joist. Panels secured to batten with four min 8d x 2-1/2" long smooth shank box nails (0.113" shank diameter) per panel.	-44 psf
Battens With Nails Tile Shingle Plus Shake	2x2 timber battens secured with two min 16d x 3-1/4" long smooth shank box nail (0.131" shank diameter) per batten intersection with framing joist. Panels secured to batten with four min 8d x 2-1/2" long smooth shank box nails (0.113" shank diameter) per panel.	-75 psf
Battens With Screws Tile Shingle Plus Shake	2x2 timber battens secured with one min #9 x 3-1/2" long deck screw per batten intersection with framing joist. Panels secured to battens with four min #8 x 1-1/2" long hex head screws per panel.	-86 psf
Each assembly addition builds on the previous assembly	• Add: ONE min #9 x 3-1/2" long deck screw per batten intersection with framing joist • Add: ONE min #8 X 2-1/2" into deck centered between joists • Add: THREE min #8 x 1-1/2" long hex head screws per panel 6" on center	-153.5 psf
	• Add: TWO #8 X 2-1/2" into deck centered between joists • Add: SEVEN #8 x 1-1/2" long hex head screws per panel 3" on center	-307 psf*

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System		Assembly	Negative Uplift Pressure**
Battens & Counter Battens With Nails Tile Shingle Plus Shake		1x4 counter battens fastened directly on top of framing joist with one 16d x 3-1/4" long smooth shank box nail, 12" on center. (Battens and panels are fastened as in batten system for -75 psf. above)	-75 psf
Battens & Counter Battens With Screws Tile Shingle Plus Shake		1x4 counter battens fastened directly on top of framing joist with one 16d x 3-1/4" long smooth shank box nail, 12" on center. (Battens and panels are fastened as in batten system for -86 psf. above)	-78.5 psf
	Each assembly addition builds on the previous assembly	• ADJUST location of fasteners in counter battens to 7" on center. • Add: THREE min #8 x 1-1/2" long hex head screws per panel 6" on center.	-146 psf
		• Add: ONE 1 x 4 counter-batten between joists (12" O.C.) fastened as existing counter-batten with one 16d x 3-14" long smooth shank box nail 7" on center. • Add: TWO #9 x 3-1/2" long deck screws per batten intersection with new counter-battten. • Add: SEVEN min #8 x 1-1/2" long hex head screws per panel (3" on center).	-292 psf*
Direct to Deck Shingle Plus Shake Plus		Install panels directly to minimum 15/32" sheathing with eight #10 x 1-1/2" long fasteners through back-shelf into sheathing and seven fasteners through the panel nose into the back shelf of the panel below it 6" on center.	-102 psf
	Each assembly addition builds on the previous assembly	• Add: SEVEN fasteners through panel nose 3" on center. • Add: EIGHT fasteners through back shelf evenly spaced.	-204 psf*

* Please note that ratings with * are calculated based on doubled load path fastening. These values cannot be tested due to testing equipment limitations (maximum actual pressure attainable is -307 psf)

** Please note that for testing purposes, each product is tested to twice the amount of maximum design uplift pressure shown here for each of the installation options. However, the actual test numbers are divided by 2 to allow for a 100% safety factor in the designs.