

WHY METRO?



WIND

High Wind— Metro roof systems with standard installation are covered under the 120-mph wind warranty. This is enough for most areas of the country but not all. The most stringent uplift pressure for residential roofs is in Dade County FL and is the “150-mph Exp-’C’, Zone-3 ‘Corner’ which requires this section of a roof to withstand ⁽¹⁾109.9-psf uplift force.

Metro—Tested to Extremes—⁽²⁾Wind-Uplift testing at UL in Chicago proved that Metro batten-less panels can out-perform our battened systems for uplift resistance. In one test UL’s Uplift test chamber was pushed to an all time high of 307-psf uplift force. The test report reads;

“Prior to and during the attainment of the 307-psf pressure, there was no sign of fastener pull-out or damage to any of the panels. The roofing system did not fail, the maximum capacity of the apparatus was reached.”

Its this sort of performance that clearly answers ‘**Why Metro?**’

Metro SMART wind Design- To support the Metro team of contractors, we now have two (2) options for permit applications in High Wind areas, commonly referred to as HVHZ areas (High Velocity Hurricane Zone). Copies of the Metro’s HVHZ approvals can be found on our website at the following link. (<http://www.metroroofs.com/highwind.html>). In both approvals Miami-Dade NOA #

06-0911.05 and FL # 6710 the contractor can select either a Batten application or a Direct-to-Deck install. For steep pitched roofs the Batten application allows a grid system for the installers to walk on while the Direct-to-Deck batten-Less method ensures high-wind security using the double ‘X’ pattern of fasteners.

HIGH VELOCITY HURRICANE ZONE (HVHZ) FL-6710 Pg 2 of 2

DIRECT TO DECK WIND SPEED: HVHZ BUILDING HEIGHT: 40 ft. Metro Roof Products 3093 'A' Industry St., Oceanside CA 92054 PH (760) 435-9842 FX (760) 435-9412

HIGH WIND CONSTRUCTION ASSEMBLY EXPOSURE: 'C' MIN. ROOF PITCH: 3:12 (24 degrees)

PERMIT CONDITIONS
The design criteria for uplift resistance presented for a mean roof height of 40 feet is taken from the Florida Building Code, Building 2004 edition RAS 127-Table 1 Minimum Design Wind Uplift Pressures in PSF for Field (P1), Perimeter (P2), and Corner (P3) for Exposure 'C' Buildings with a Roof Mean Height as specified.

Mean Roof Height (ft)	Minimum Design Uplift Pressure (psf)
1-10	40
10-15	45
15-20	50
20-25	55
25-30	60
30-35	65
35-40	70

PANEL PROFILES
Applicable to the installation assembly:
* Metro ROMAN Tile
Metro TILE
Metro SHAKE

ROOF WIND ZONE: PERIMETER EDGE (P2) & CORNER (P3) Allowable Design Pressure -153.5 PSF

FASTENING Roof Wind Zones (P2) & (P3)

CAUTION
Metro recommends its 'Watten-Less' ROMAN Tile be installed with 816 2 2x4" inch long hex headed screws across the front down batten ridge.

FL- High Wind Design Detail Sheet



Smart Roofs for Smart People™

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The opinions expressed in this paper are based on industry experience, independent testing, and analysis by Metro engineers. The purpose, is to explain and promote the unique and distinctive benefits a Stone-Coated Steel roof from Metro can provide.

¹ Florida Building Code 2004 Edition, RAS 127-Table 1 Min Design Wind Uplift Pressure P1, P2, & P3, with a Mean roof height-40ft..

² Metro High Wind Uplift tests 12/19/05, UL Proj.# 05NK26978 using UL-1897 & 580 test formats.