



TECHNICAL BULLETIN – UNDERSTANDING WIND UPLIFT IN ROOF DECK APPLICATIONS

Iron Woods introduced roof deck tiles in 1993 as a vendor to various concrete roof paver pedestal manufacturers and subsequently distributes to various OEM's under private label upgrading both pedestals and deck tile technology as improvements in design and connection technologies became available. Our private label systems now include state of the art technologies which include proprietary decking profiles, expanded deck tile dimensional selections, pressure fit pin attachment, post installation height adjustment, and self-leveling pedestal technology. Iron Woods currently distributes its systems through green roof technology providers, Specialty Building Products Retailers and Roofing Contractors. Over the last 24 plus years Iron Woods has supplied a large volume of roof deck projects throughout the United States with no reports of uplift damage and our systems are consistently approved in "Or Equal" roof deck tile, decking and pedestal specifications due to their superior design characteristics and technologies..

The Iron Woods Roof Deck, Deck Tile and Pedestal System relies on gravity, perimeter containment, and mechanical connections subject to wind uplift requirements. The Iron Woods Roof Deck, Deck Tile and Pedestal System create a pressure equalizing air and water permeable deck which equalizes uplift forces and restrains movement through the combination of ballast (weight), pressure equalization and in more extreme uplift environments mechanical connections.

While the IBC code that went into effect in 2012 increased allowable wind speeds in all areas, unfortunately to date there exists no IBC or ICC-ES acceptance criteria or specific ASTM test protocol for roof deck tile, decking and pedestal applications. There exists an ASTM TAS 108 test protocol for testing air permeable ridged discontinuous roof systems (clay and concrete roof tiles/Shingles) which some system manufactures reference or use as a form of specification control but this test protocol is not recognized by the ICC-ES relative to roof deck tile, decking and pedestal systems as there is no physical attachment of the pedestals and subsequent system to the roof substrate as required under the test protocol. This being said it would be difficult, if not impossible, to test for all circumstances and contingencies.

This being said we must rely on engineering to validate product performance. This engineering data is available in the form of Master Plan Sheets which can be engineers stamped and certified at the state level. These master plan sheets assist both designers in the specification process and code officials in the approval process and should be relied on as part of any submittal process.

This technical bulletin is intended to provide the most current information available related to roof decks and wind lift and is not intended as a guarantee or warranty of any kind, including but not limited to warranties of merchantability or fitness for a particular purpose. None of the information in this Technical Bulletin is intended to substitute for the engineer, specifier, architect, builder, contractor or owner's own analysis, investigation and due diligence regarding the appropriate choice, application, installation and construction of an Iron Woods Roof Deck Tile, Decking and Pedestal System in any particular location or application.