



BALLAST PAVER™

Wind Uplift Resistance of the Ballast Paver System

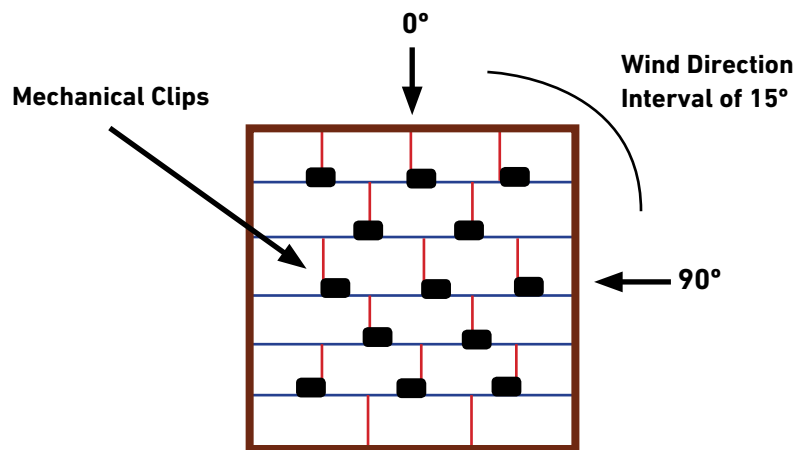
FINDINGS:

Ballast Pavers used on rooftops can withstand winds up to 150 mph at wind directions up to 90°

Ballast Pavers were tested with a full-scale wind tunnel testing procedure.

The two tests included Ballast Pavers that were fixed to each other using only mechanical clips and a combination of adhesive with mechanical clips.

Ballast Pavers are the easiest lightweight concrete pavers to install and are designed to interlock with one another forming a ballast system that effectively secures single-ply roofing membranes. Ballast Pavers can be used as a walkway, perimeter ballast, or can fully cover a roof for ultimate protection from wind and UV damage.



SYSTEM BENEFITS

Ballast pavers can assist in protecting roofs from roof pressure and wind uplift, as well as provide fire resistance, a barrier to thermal shock and protection from UV degradation.

SUMMARY OF WIND UPLIFT RESISTANCE TESTING

Tests conducted at the WOW at FIU for wind speeds varying from 30 mph to 150 mph and wind directions from 0 degrees to 90 degrees indicated that no damage to the pavers or any part of the building was reported at a given wind speed and direction¹.

SUMMARY OF WIND UPLIFT RESISTANCE TEST

WIND DIRECTION	TEST WITH CLIPS WIND SPEED (MPH)	TEST WITH CLIPS AND ADHESIVE
0 degrees	30 - 150	30 - 150
15 degrees	30 - 150	30 - 150
30 degrees	30 - 150	30 - 150
45 degrees	50 - 120, <u>130</u>	30 - 150
60 degrees	50 - 120, <u>130</u>	50 - 150
75 degrees	50 - 150	50 - 150
90 degrees	30 - 150	50 - 150

Note: Numbers indicated in bold and underlined are the speeds at which some of the tiles **detached** from the roof.

¹ **Wall of Wind test, Florida International University (FIU):** FIU Engineering Center, Final Report August 12, 2016

PRODUCT FEATURES

- Interlocking design for superior wind resistance
- Higher density concrete
- Easy installation process reduces construction time
- Four-way drainage allows water to flow freely underneath the surface and to roof drainage systems
- Fire-resistant
- Freeze-thaw durable
- Non-abrasive bearing pads

APPROVALS & PERFORMANCE

Meets or exceeds the guidelines and criteria for ballasted roof systems established by:

- Factory Mutual
- Underwriters Laboratories
- CC-ES
- SPRI Paver Specifications
- SPRI Wind Design Guide



BALLAST PAVER™

DIMENSIONS:

8 ½" x 16" x 1 ½"

WEIGHT:

13.75 psf

DIMENSIONAL TOLLERANCE:

+/- ⅛" (length, width, height, convex, concave)

COMPRESSIVE STRENGTH:

minimum 5,000 psi

DENSITY:

125 pcf

WATER ABSORPTION:

less than 5%

FLEXURAL STRENGTH:

minimum 400 psi

FREEZE THAW:

less than 1% loss in weight after 40 cycles

PACKAGING:

200 pavers per pallet, 189 Sq. Ft. per pallet

TRUCKLOAD QUANTITY:

16 pallets (3,200 pavers)

For warranty information, contact your Westile Product Representative.

Technical Specifications and Installation guide is available at www.westile.com

Contact your Westile Product Representative for more information
info@westile.com or 1-800-433-8453