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Client: Crown Building Products of Florida, LLC
 6018 S.W. Highway 72
 Arcadia, Florida 34266
 Att. Mr. Juan Prestamo

Report Date: 9/12/14
 ATLSF Report #: RT0912.02-14

Re: Calculations for Aerodynamic Multiplier per FBC, Section 1518.8.4.5
 Calculations for Weight and Restoring Moment Due to Gravity per TAS 101-95
 Sections 10.2 & 10.2, TAS 102-95 & 102A-95 Sections 9.1 & 9.2.

Service Authorized by:	Juan Prestamo
Manufacturer:	Crown Building Products of Florida, LLC
Model:	Tuscany, Low Profile, Concrete Roof Tile
Imprint:	TUSCANY CROWN
Nominal Dimensions (in.), (l x w x h), provided by supplier:	17.0 x 13.0 x N/P
Nominal Thickness (in.), provided by Supplier:	0.50
Nominal Weight (lbf): as provided by supplier:	10.0
Classification per TAS 112- 95:	Type 1b- Low Profile, Interlocking, Class III
Purpose:	New Product Approval
Comments:	Attachment Resistance Expressed as a Moment Data to be obtained from Tile Roof Institute data on file.

ATLSF Accreditations & Certifications:	Miami-Dade: 13-0228.09 A2LA: 2650.01 testing FBC Organization #: TST3782
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Calculations:

1. Weight (W):

$$W = m \times 1 \text{ lbf s}^2/\text{ft} \times 32.2 \text{ ft/s}^2$$

$$32.174 \text{ lbf}$$

$$W = 10.0 \times 1.0008$$

$$W = 10.008 \text{ lbf}$$

2. Restoring Moment Due to Gravity (M_g):

$$M_g = W \times \cos(\theta - \alpha) \times L_g$$

Direct Deck Application

Pitch	Equation	Restoring Moment Due to Gravity (M_g)
2:12	$M_g = 10.008 \times \cos(9.462 - 4.686) \times 0.708$	$M_g = 7.06$
3:12	$M_g = 10.008 \times \cos(14.036 - 4.686) \times 0.708$	$M_g = 6.99$
4:12	$M_g = 10.008 \times \cos(18.435 - 4.686) \times 0.708$	$M_g = 6.88$
5:12	$M_g = 10.008 \times \cos(22.620 - 4.686) \times 0.708$	$M_g = 6.74$
6:12	$M_g = 10.008 \times \cos(26.565 - 4.686) \times 0.708$	$M_g = 6.57$
7:12	$M_g = 10.008 \times \cos(30.256 - 4.686) \times 0.708$	$M_g = 6.39$

Batten Application

Pitch	Equation	Restoring Moment Due to Gravity (M_g)
2:12	$M_g = 10.008 \times \cos(9.462 - 4.514) \times 0.708$	$M_g = 7.06$
3:12	$M_g = 10.008 \times \cos(14.036 - 4.514) \times 0.708$	$M_g = 6.99$
4:12	$M_g = 10.008 \times \cos(18.435 - 4.514) \times 0.708$	$M_g = 6.88$
5:12	$M_g = 10.008 \times \cos(22.620 - 4.514) \times 0.708$	$M_g = 6.73$
6:12	$M_g = 10.008 \times \cos(26.565 - 4.514) \times 0.708$	$M_g = 6.57$
7:12	$M_g = 10.008 \times \cos(30.256 - 4.514) \times 0.708$	$M_g = 6.38$

3. Aerodynamic Multiplier (λ): Direct Deck Application

$$\lambda = 0.156 \times b \times l^2$$

$$\lambda = 0.156 \times 1.000 \times 1.417^2$$

$$\lambda = .313$$

4. Aerodynamic Multiplier (λ): Batten Application

$$\lambda = 0.144 \times b \times l^2$$

$$\lambda = 0.144 \times 1.000 \times 1.417^2$$

$$\lambda = .289$$

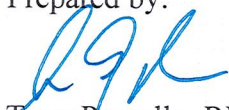
The calculations provided in report ATLSF #: RT0912.02-14 has been performed in full accordance with the requirements of Miami-Dade County, with no deviations.

Disclaimer: This test report was prepared by American Test Lab of South Florida, (ATLSF), for the exclusive use of the above named client and does not constitute certification of this product. The results relate to the particular specimens tested and does not imply that the quality of similar or identical products manufactured or installed from specifications or shop drawings identical to the product tested. ATLSF is an independent testing laboratory and assumes that all information provided by the client is accurate and does not guarantee or warrant any product tested or installed.

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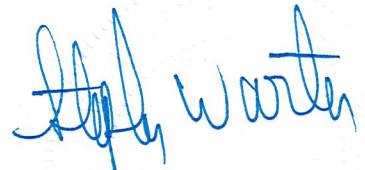
End of report.

Prepared by:



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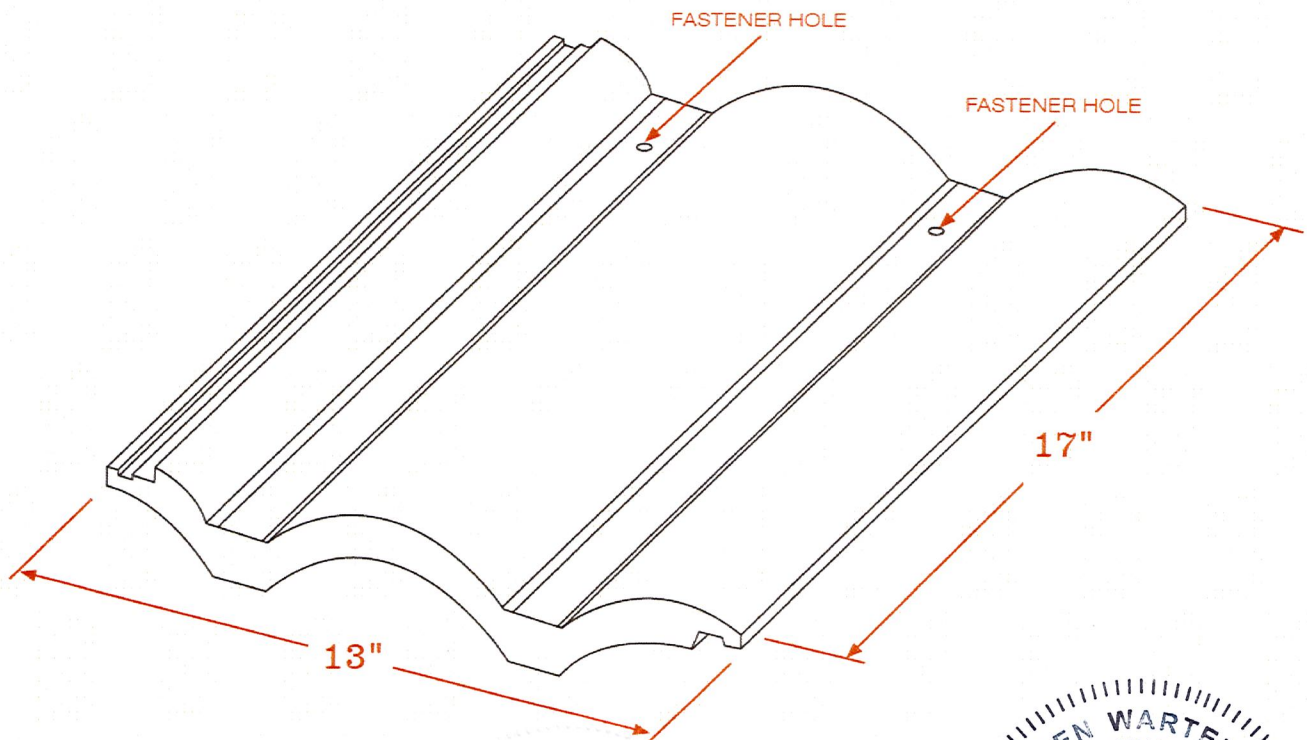




PRODUCT DATA SHEET

NAME	LENGTH	OVERALL WIDTH	EXPOSED WIDTH	NAIL HOLE FROM END	THICKNESS	DRY WEIGHT
TUSCANY	17"	13"	12"	1-1/2"	0.50"	10.00 lbs.

TUSCANY



The above technical data for the Tuscan, concrete roof tile manufactured by Crown Building Products of Florida, LLC is representative of the tiles tested and reported in ATLSF Report # RT0908.02-14 & RT0912.02-14

Stephen W. Warter, P.E.
 Reg. State of Florida #54395
 American Test lab of South Florida

Stephen Warter

