



PRI Construction Materials Technologies LLC

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Laboratory Test Report

Table T-3

**ASTM E 330 WIND RESISTANCE EVALUATION OF SEALED
CLADDING SYSTEM ON A WOOD FRAMED WALL WITH LATH
ATTACHED WITH SCREWS
(PROJECT NO. 1809T0001)**

For

KONING CONSTRUCTION CONSULTANTS

8301 JOLIET STREET

HUDSON, FL 34667

OCTOBER 8, 2019

Purpose: Evaluate the exterior finish assembly described herein for wind resistance in accordance with **ASTM E 330: Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.**

Test Methods: Testing was conducted in accordance with ASTM E 330-02(2010): *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.* Specimens were tested in accordance with Procedure A. The selected test load was ± 50 psf, which equates to a ± 75 psf proof load when the typical 1.5 factor of safety is applied to the test result. The following sequence was used to evaluate the specimen:

1. +75 psf was applied for 10 seconds
2. Specimen was recovered for 1-5 minutes
3. +150 psf was applied for 10 seconds
4. Specimen was recovered for 1-5 minutes
5. -75 psf was applied for 10 seconds
6. Specimen was recovered for 1-5 minutes
7. -150 psf was applied for 10 seconds
8. Specimen was recovered for 1-5 minutes

Sampling: All products applied to the wood studs were provided by Koning Construction Consultants. Below is an itemized list of products that are used in the Sealed Cladding System.

<u>Product Identification</u>	<u>Manufacturer</u>
TYPAR® BuildingWrap	Fiberweb, Inc.
TYPAR® Construction Tape	Fiberweb, Inc.
StructaLath No. 17 SFRC Twin Trac 2.5	Structa Wire Corp.
DRYLOK® Extreme Masonry Waterproofer	United Gilsonite Laboratories
Vinyl Corp E-Flange Casing Beads	ClarkDietrich
MasterSeal NP150	BASF
Florida Super Stucco	Argos Cement LLC

Specimen: A 4-ft x 8-ft mock-up was constructed from No.2 2x6 dimensional lumber with studs located 16-inch o.c. and sheathed with CAT 7/16 PS 2-10 OSB sheathing attached 6" o.c. with #8 x 2" bugle head wood screws. The OSB was installed with a single horizontal and single vertical joint. TYPAR® BuildingWrap was installed with a T-Joint, having a minimum 6" overlap. All joints were taped with 1-7/8" wide TYPAR® Construction Tape. The building wrap was tacked in place with 3/8" crown x 1/4" leg staple placed randomly to hold in place. Vinyl Corp 3/4" E-Flange Casing Beads was attached along the perimeter of the water with #8 x 1" lath screws spaced 24" o.c. The casing was sealed on the exterior to the wall with MasterSeal NP150. StructaLath No. 17 SFRC Twin Trac 2.5 was installed with #8 x 1" truss-head, K-lath screws spaced maximum 16" o.c. along the horizontal dimension on the twin track. The attachment rows were spaced vertically a maximum 6" o.c. and offset 8" o.c. from the preceding row. The stucco finish was prepared by mixing Florida Super Stucco and sand at a 1:4 ratio and applied in two (2) 3/8" coats for a total thickness of 3/4". The final coat was densified with a green

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wet float. The walls were coated with DRYLOK® Extreme Masonry Waterproofing at a rate of 100 ft²/gal applied in two coats (13-21 wet mils per coat).

Results: The specimen was tested September 11, 2019. Results of testing are shown below.

Table 1. Results from ASTM E 330, Procedure A for ±75 psf Test Load

Pressure (psf)	Duration (s)	Result (Pass/Fail)
+75	10	Pass
0	60	Pass
+150	10	Pass
0	60	Pass
-75	10	Pass
0	60	Pass
-150	10	Pass
0	60	Pass

Note(s): Deflection measurements were not evaluated.

Specimen failure was determined by the presence of visible cracks in the stucco finish.

Statement of Attestation:

The performance evaluation of the Sealed Cladding System was conducted in accordance with ASTM E 330-02(2010): *Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference* as described herein. The laboratory test results presented in this report are representative of the material supplied.

Signed: 

 Zachary Priest, P.E.
 Director

Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	10/08/2019	8	NA
Rev 1	10/28/2019	8	Editorially revised

APPENDIX FOLLOWS

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Specimen #1 Construction Photos



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STRUCTA WIRE CORP

STRUCTALATH TWIN TRAC

SPECIFICATION SHEET

IAPMO UES 2017 US Patent # 6,305,424, B1 7,287,356, B2



Structalath Twin is a self furring welded wire lath for use as an alternative to the 2.5 lb/yd² diamond mesh metal lath as specified in ASTM C 847 and for use as an alternative to the 1.14 lb/yd² welded wire lath specified in ASTM C 933. Structalath Twin Trac is similar to Structalath No. 17 ga. with an addition of eight secondary cold-rolled longitudinal wires. Excellent for commercial construction, Twin Trac has been designed to simplify the attachment of wire lath to wood and steel studs.

FEATURES

- Designed to simplify attachment for both steel and wood stud construction
- 17 ga. galvanized steel wire is precision welded to form 1 1/2" x 1 1/2" openings
- Eight additional secondary cold rolled longitudinal wires form a twin trac that simplifies attachment
- The 3/16" Twin Trac spacing allows the easy penetration of screws, nails, and a wide base for automatic staples
- Rolls are 38 3/8" wide by 150 ft. long (50 square yards)
- Weight of roll is 1.14 lb/yd²
- Design promotes uniform plaster thickness
- Provides superior reinforcement and crack resistance
- Each and every cross wire is securely furred
- Hat channel furr provides for superior stucco embedment
- Longitudinal wires are cold rolled (flattened) to eliminate curvature memory

- Cold rolled (CR) process increases tensile and breaking load of wire
- Rolls out flat and stays flat
- Easy to fold around corners with clean bending lines

DETAILS

- A. Width of furring leg 3/8"
- B. Furring height 1/4" to the underside of the cross wire
- C. Furring rows every 3" on centre
- D. Every cross wire is furred
- E. Tabs are aligned with edge wire and extend 1/4" beyond edge wires
- F. Overall width is 38 3/8". Designed for full coverage of 9' - 3" wall heights including code required overlaps
- G. Twin Trac for ease of attachment

PACKAGING

- 32 rolls per pallet
- Each roll is banded with poly strapping indicating manufacturer and IAPMO UES 2017
- English/Spanish installation instructions available

GREEN ATTRIBUTES

- Made from 80% recycled steel – recycling conserves natural and energy resources
- Conservation of steel without reducing strength
- Less metal with no loss of performance
- Compact packaging means further reduction in total carbon footprint

ALSO AVAILABLE:

- Twin Trac - Stainless Steel T-304/ANSI *Special Order Only*

Fully conforms to the requirements for stucco reinforcing as defined in UBC, IBC and IRC building codes

STRUCTA WIRE CORP. 1395 NORTH GRANDVIEW HWY, VANCOUVER, BC V5N 1N2 T 604-254-9868 E INFO@STRUCTAWIRE.COM

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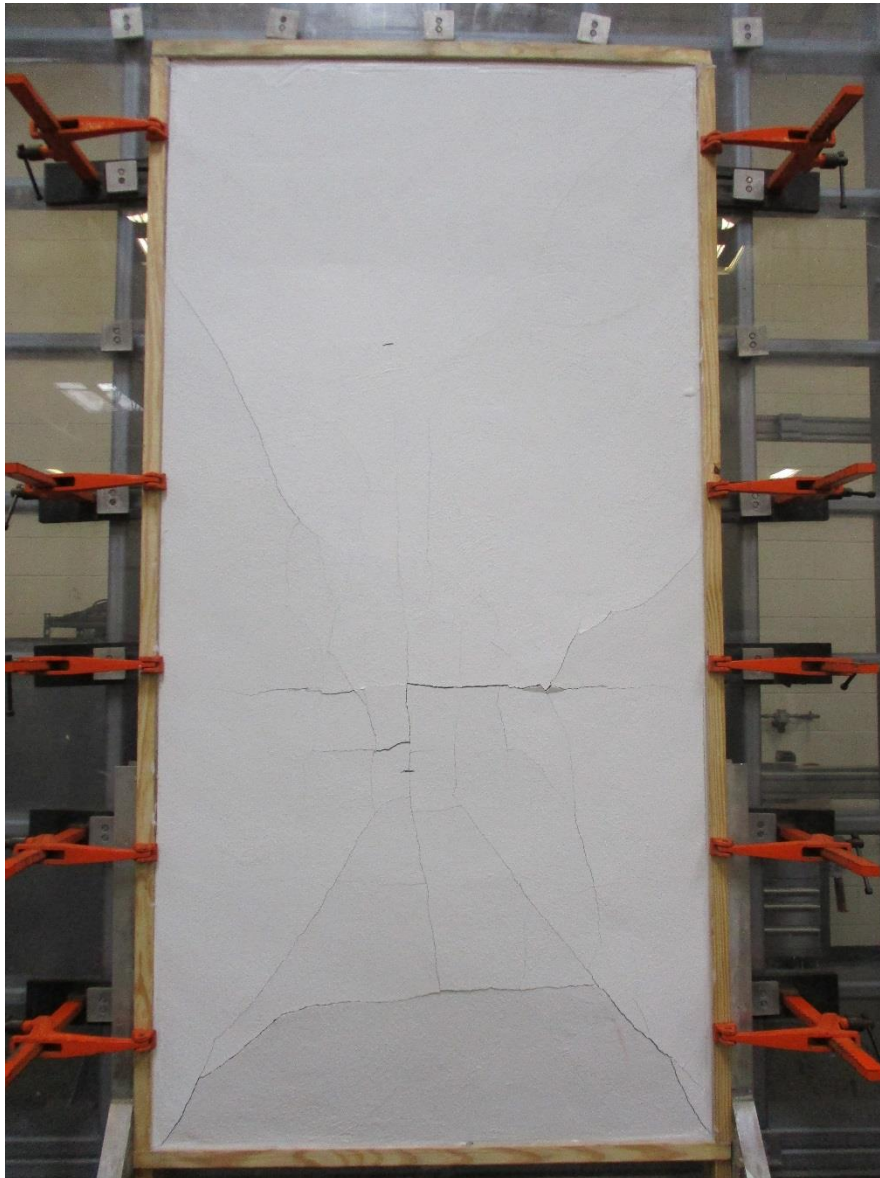
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Specimen #1 Failure Photo



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