



CONSTRUCTION MATERIALS

TECHNOLOGIES

LABORATORY TEST REPORT

Report for: Sheffield Metals International
5467 Evergreen Parkway
Sheffield Village, OH 44054

Attention: Adam Mazzella

Product Names:	WAV panel	Manufacturer:	Sheffield Metals International
Project No.:	SHMI-006-02-02	Source:	Sheffield Metals International
Date Received:	Nov. 14 – Dec. 4, 2017	Date Tested:	Jan. 23, 2018

Purpose: Determine air leakage and water penetration in accordance with **ASTM E 283: Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen** and **ASTM E 331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference**.

Test Methods: Testing was conducted in accordance with ASTM E 283-04: Standard Test Method for Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences across the Specimen. Testing was conducted to determine the infiltration and exfiltration air leakage rates at $\Delta P = 75$ Pa.

Testing was conducted in accordance with ASTM E 331-00(2009): Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference. The wall assembly was tested at a minimum differential pressure of 6.24 pounds per square foot (299 Pa) for a minimum of 15 minutes. The "passing" criteria for this test are that no visible water leakage shall be present at the panel seams or fastener penetrations.

Sampling: WAV panels, clips and fasteners were supplied by Sheffield Metals International. All other materials were provided by PRI Construction Materials Technologies LLC and purchased through local distribution.

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PRI-CMT Accreditations: AAMA; CRRC; IAS; LA-DBS; Miami-Dade; State of Florida; UL

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Panel Description: Supports: 2" wide, 18 ga. hat channel spaced 1-ft o.c.

WAV panel: WAV-16-4F With Flange; Min. 0.0236" ASTM A792 SS Grade 50 steel ($F_y = 60$ ksi); 17" wide panel with 16" wide exposure; Profile drawing is contained in Appendix A.

Fastening: #10-16x1" fasteners installed through panel into each hat channel 1" from the return leg prior to adjoining panels.

Results:

Table 1. Summary of Test Results

Specimens	Test Method	Test Pressure (psf)	Result	Requirement
24 ga. steel WAV panel; 1' span; 36" x 64" specimen				
Preload	ASTM E 283	± 15.0	Pass	Report
Air Exfiltration (cfm/ft ²)	ASTM E 283	-1.57	0.003	Report
Air Infiltration (cfm/ft ²)	ASTM E 283	+1.57	0.004	Report
Water Penetration Resistance 5.0 US gal/ft ² /h for 15 min	ASTM E 331	+6.24	Pass	Report

Remarks: It is our opinion that above properties are also applicable to the WAV-16-4C based on the review of the profile and installation.

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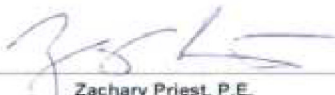
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Statement of Attestation:

Testing was conducted in accordance **ASTM E 283: Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen** and **ASTM E 331: Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, 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



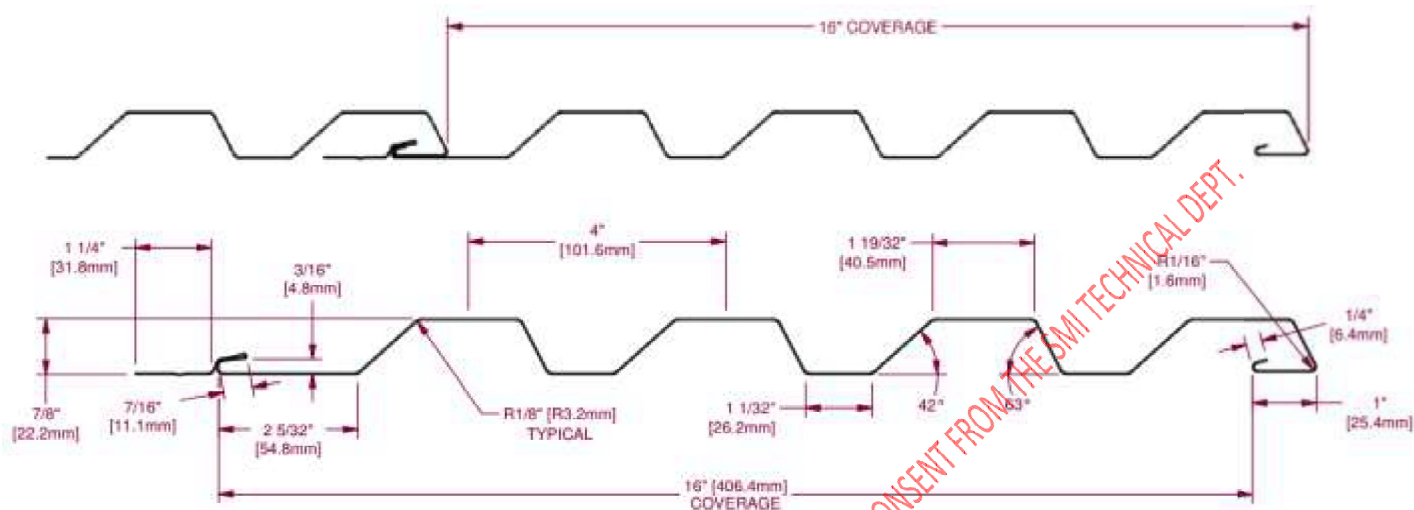
Report Issue History:

Issue #	Date	Pages	Revision Description (if applicable)
Original	02/20/2018	4	NA
Rev 1	03/06/2018	4	Updated name and added remarks

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Panel Profile (WAV-16-4F With Flange)

END OF REPORT

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