



AAMA 509-14 DRAINED/BACK-VENTILATED RAIN SCREEN

Date of Test: February 21-22, 2018
Test Agency: Intertek, 1701 Westfork Drive, Suite 106, Lithia Springs, GA 30122
Test Method: AAMA 509-14 – Voluntary Test and Classification Method of Drained and Back Ventilated Rain Screen Wall Cladding Systems
Test Specimen: Nichiha Architectural Wall Panels
Sample Specs: Thickness: 16 mm (5/8" nominal) AWP 1818 and 3030

Assembly/Installation:

One steel Starter Track (FA700) was installed at the bottom of an 8'x 8' wood support frame, located 3/4" from the bottom edge. Starter Track was installed using one No. 10 by 1-5/8" long flat head wood screw at each vertical stud at 16" o.c. Three 26" long (full-width) panel clips (JEL778) and one cut, 6" clip were installed horizontally on each row of panels using No. 10 by 1-5/8" wood screws at each vertical stud. Cladding was installed at the top of the sample wall by face-fastening panels with No. 8 by 2" long flat head wood screws through 10mm corrugated shim at each vertical stud. The Nichiha AWP installation included representative standard horizontal and vertical panel joints.

Test Procedure: AAMA 509-14 was performed in accordance with AAMA instructions and component tests, including ASTM E283 Rate of Air Leakage, ASTM E331 Water Penetration (Uniform Static Pressure), and AAMA 501.1-17 Water Penetration (Dynamic Pressure).

Results:

Test	Result
Air Leakage (Ventilation Test) via ASTM E283	
Initial Tare (@75 Pa (1.57 psf))	5.77 L/s
Defects in air-water barrier	9.34 L/s
Total with cladding	3.59 L/s
Air flow across cladding elements	
Head (@26 Pa (0.55 psf))	20.15 L/s
Sill	25.11 L/s
Vertical joints	0.55 L/s
Horizontal joints	0.45 L/s
Sum	46.26 L/s (7.78 L/s/m ²)
Ventilation Classification: V1	
Water Penetration (Water collected off AWB behind cladding)	
ASTM E331 Static Pressure	
300 Pa (6.24 psf)	water in ml (oz) 0.00 (0.00)
575 Pa (12 psf)	16.87 (0.57)
AAMA 501.1 Dynamic Pressure	
300 Pa (6.24 psf)	water in ml (oz) 9.12 (0.31)
575 Pa (12 psf)	18.7 (0.63)
Sum	7.52 ml/m ²
Average	1.88 ml/m ²
Water Penetration Classification: W1	