

### **TEST REPORT SUMMARY**

AIR - WATER – STRUCTURAL
TerraPorte 7600 Terrace Door

# **PRODUCT**

#### **TerraPorte 7600 Terrace Door**

Single Outswing accessABLE™ Terrace Door (Polyamide thermal break)

### **TEST RESULTS**

AAMA/WDMA/CSA 101/I.S.2/A440-08		Class AW-PG70-ATD
Air Infiltration	ASTM E283	0.10 cfm/ft <sup>2</sup> @ 6.24 psf
Canadian Air Infiltration/Exfiltration Level	ASTM 283	А3
Static Pressure Water Resistance	ASTM E331	12 psf
Cyclic Static Pressure Water Resistance	ASTM E547	12 psf
Structural – Design Load	AAMA E330	70 psf
Structural – Overload	AAMA E330	105 psf
Life Cycling Test	AAMA 910	Pass
Unit Size: 48" x 96"		

## **TEST LAB**

### **Exova**

Mississauga, Ontario L5T 1B3

Report Number	14-06-M0017, Rev 1
Test Date	02/20/14
Report Date	03/06/14

Reference Exova report #14-06-M0017, Revision 1, dated March 06, 2014 for complete test specimen description and data.

Tubelite Representative:

(sign) 2/10/2017 (date)

(title)

Tim Fookes - Director of Engineering

#### **TEST METHODS**

**Air Leakage Resistance:** ASTM E283-04, Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen. Testing was conducted at 6.24 psf positive and negative static air pressure difference.

**Static Pressure Water Resistance:** ASTM E331-00, *Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, Curtain Walls by Uniform Static Air Pressure Difference.* Testing was conducted at 15 psf positive static air pressure difference for 15 minute duration. Water applied at a minimum rate of 5 gal/ft²/hr.

**Cyclic Pressure Water Resistance:** ASTM E547-00, Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Cyclic Static Air Pressure Difference. The test was performed at 15 psf positive pressure differential and a water spray rate of at least 5.0 US gal/ft² per hour. Each cycle consisted of five minutes with the pressure applied and one minute with the pressure released, during which the water spray was continuously applied.

**Operation/Cycling Performance:** AAMA 920-03, Specification for Operating Cycle Performance of Side-Hinged Exterior Door System. Testing was conducted for the AW (architectural terrace doors) class with a total number of cycles of 25,000, as governed by AAMA/WDMA/CSA 101/I.S.2/A440-08.

**Vertical Loading Resistance**: AAMA 925-03, Specification for Determining the Vertical Loading Resistance of Side-Hinged Door Leaves. The test was performed with a total applied load of 500 lbs. The force to latch was also measured in accordance with Clause 9.5 of ANSI/BHMA A156.2 and compared to the allowable criteria as per Clause 7.1 of AAMA 925-03.

**Structural Performance**: ASTM E330-02, Standard Test Method for Structural Performance of Exterior Windows, Curtain Walls and Doors by Uniform Static Air Pressure Difference. Testing was conducted at +/- 70 psf design loads and +/- 105 psf overloads. Allowable Criteria: Design - L/175 deflection normal to wall plane for clear spans up to 13'-6". Overload – net permanent set shall not exceed 0.2% of the clear span.

**Forced Entry Resistance:** AAMA 1304-02, Voluntary Specification for Forced Entry Resistance of Side-Hinged Door Systems. Testing was conducted with a point load of 300 lbs being applied as per the standard in three locations in a direction that would tend to open the leaf. Each load was applied for a duration of 30 seconds.

**Life Cycling Test:** AAMA 910-10, Voluntary "Life Cycle" Specifications and Test Methods for AW Class Architectural Windows and Doors. Testing was conducted with the door leaf and locking hardware completing 4000 cycles. At the completion of the testing there shall be no damage to fasteners, hardware parts, support arms, actuating mechanisms or any other damage which causes the window or door to malfunction.