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PERFORMANCE TESTING IN ACCORDANCE WITH AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011) & CSA A440S1-17 AAMA/WDMA/CSA 101/I.S.2/A440-17 (NAFS 2017) & CSA A440S1:19

PRODUCT MANUFACTURER
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REPORT AI-05151-I1 Rev.2

TEST REPORT SUMMARY	
Product type	**Sliding Door**
Product series/model	**S-8375 (OXXXXO) with Screen**
Primary product designator	**Class R – PG15 : Size tested 7010 x 2425 mm (~ 276 x 96 in) - Type SD**
Optional secondary designator	**Positive Design pressure (DP) = 1440 Pa (~30.08 psf)** **Negative design pressure (DP) = -1440 Pa (~-30.08 psf)** **Water penetration resistance test pressure = 140 Pa (~2.92 psf)** **Canadian air infiltration / exfiltration level = A3 Level**

See CLEB laboratory Inc. complete report AI-05151-I1 Rev.2 for test specimen description and detailed test results

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5.0 RESULTS OF PERFORMANCE TESTS

SPECIFICATIONS	TEST RESULTS
Ease of operation test Force to initiate motion: R – LC Classifications < 135 N *(~30.35 lbf)* CW – AW Classifications < 180 N *(~40.47 lbf)* Force to maintain motion: R – LC Classifications < 110 N *(~24.73 lbf)* CW-AW Classifications < 115 N *(~25.85 lbf)* Force to latch < 100 N *(~22.48 lbf)* *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.1.* *A440S1-17 Canadian Supplement par. 5.2* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.1.* *A440S1-17 Canadian Supplement par. 5.3* *ASTM-E2068-00 (2008)*	**Passed** **R Classification** Measured to initiate = 102 N *(~23 lbf)* Measured to maintain = 40 N *(~9 lbf)* Measured to latch = 89 N *(~20 lbf)*
U.S. Air Leakage Resistance Test R – LC – CW Classifications: Q_{inf} ≤ 1.5 l/s-m² @ 75 Pa *(~≤ 0.3 cfm/ft² @ 1.57 psf)* AW Classification: Q_{inf} ≤ 1.5 l/s-m² @ 300 Pa *(~≤ 0.3 cfm/ft² @ 6.27 psf)* **Canadian air infiltration/exfiltration levels** R – LC – CW Classifications: A2: Q ≤ 1.5 l/s-m² @ 75 Pa *(~≤ 0.3 cfm/ft² @ 1.57 psf)* A3: Q ≤ 0.5 l/s-m² @ 75 Pa *(~≤ 0.1 cfm/ft² @ 1.57 psf)* AW Classification: A2: Q_{inf} ≤ 1.5 l/s-m² @ 300 Pa *(~≤ 0.3 cfm/ft² @ 6.27 psf)* Q_{ext} ≤ 1.5 l/s-m² @ 75 Pa *(~≤ 0.3 cfm/ft² @ 1.57 psf)* A3: Q_{inf} ≤ 0.5 l/s-m² @ 300 Pa *(~≤ 0.1 cfm/ft² @ 6.27 psf)* Q_{ext} ≤ 0.5 l/s-m² @ 75 Pa *(~≤ 0.1 cfm/ft² @ 1.57 psf)* *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.2* *A440S1-17 Canadian Supplement par. 5.3* *ASTM-E283-04 (2012)*	**Class R – U.S. Requirements** **A3 Level –Canadian Requirements** Surface: 17.00 m² *(~182.98 ft²)* Q_{inf} = 0.35 l/s-m² @ 75 Pa *(~0.07 cfm/ft² @ 1.57 psf)* Q_{ext} = 0.36 l/s-m² @ 75 Pa *(~0.07 cfm/ft² @ 1.57 psf)*
Air Leakage Resistance Test R – LC – Classifications: Q_{inf} ≤ 1.5 l/s-m² @ 75 Pa *(~≤ 0.3 cfm/ft² @ 1.57 psf)* Canadian air infiltration/exfiltration levels: A2: Q ≤ 1.5 l/s-m² @ 75 Pa *(~≤ 0.3 cfm/ft² @ 1.57 psf)* A3: Q ≤ 0.5 l/s-m² @ 75 Pa *(~≤ 0.1 cfm/ft² @ 1.57 psf)* CW Classification: Q ≤ 1.0 l/s-m² @ 75 Pa *(~≤ 0.2 cfm/ft² @ 1.57 psf)* AW Classification: Q_{inf} ≤ 1.5 l/s-m² @ 300 Pa *(~≤ 0.3 cfm/ft² @ 6.27 psf)* Q_{ext} ≤ 0.5 l/s-m² @ 75 Pa *(~≤ 0.1 cfm/ft² @ 1.57 psf)* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.2* *A440S1-19 Supplément Canadien par. 5.4* *ASTM-E283-04 (2012)*	**Class R – U.S. Requirements** **A3 Level –Canadian Requirements (R)** Surface: 12.63 m² *(205.12 ft²)* Q_{inf} = 0.35 l/s-m² @ 75 Pa *(~0.07 cfm/ft² @ 1.57 psf)* Q_{ext} = 0.36 l/s-m² @ 75 Pa *(~0.07 cfm/ft² @ 1.57 psf)*

Water Resistance Test No water infiltration under a minimum pressure differential: Class R: 140 Pa *(~2.92 psf)* Class LC: 180 Pa *(~3.76 psf)* Class CW: 220 Pa *(~4.59 psf)* Class AW: 390 Pa *(~8.15 psf)* *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.3.* *A440S1-17 Canadian Supplement par. 5.4* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.2* *A440S1-19 Canadian Supplement par. 5.5* *ASTM-E547-00 (2009 & 2016)*	**Class R – U.S. & Canadian Requirements** **With & without screen** No water infiltration under the minimum test pressure for the Class. No water infiltration at an optional test pressure differential of: **140 Pa** *(~ 2.92 psf)* - U.S. & Canadian Requirements
Uniform Load Deflection Test Member deflection at a minimum design pressure (DP) and at optional DP: Class R: 720 Pa *(~15.04 psf)* – Reported only Class LC: 1200 Pa *(~25.06 psf)* – Reported only Class CW: Limited to L/175 at 1440 Pa *(~30.08 psf)* Class AW: Limited to L/175 at 1920 Pa *(~40.10 psf)* *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.4* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.4* *ASTM-E330-02 (2010) & ASTM-E330-14*	**Reported only – Class R** Net deflection measured on the astragal: 7.63 mm @ –720 Pa *(~0.30" @ –15.04 psf)* 7.59 mm @ +720 Pa *(~0.30" @ +15.04 psf)* 16.93 mm @ –1440 Pa *(~0.67" @ –30.08 psf)* 15.77 mm @ +1440 Pa *(~0.62" @ +30.08 psf)*
Uniform Load Structural Permanent deformation is limited at a minimum structural test pressure (STP) and at optional STP of: Class R: ≤ 0.4% (L) at 1080 Pa *(~22.56 psf)* Class LC: ≤ 0.4% (L) at 1800 Pa *(~37.59 psf)* Class CW: ≤ 0.3% (L) at 2160 Pa *(~45.11 psf)* Class AW: ≤ 0.2% (L) at 2880 Pa *(~60.15 psf)* *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.4* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.4* *ASTM-E330-02 (2010) & ASTM-E330-14*	**STP 30 – Class R** Permanent deformation measured on the astragal: 0.65 mm @ –1080 Pa *(~0.03" @ –22.56 psf)* 0.55 mm @ +1080 Pa *(~0.02" @ +22.56 psf)* 1.84 mm @ –2160 Pa *(~0.07" @ –45.11 psf)* 3.19 mm @ +2160 Pa *(~0.13" @ +45.11 psf)* Allowed ≤ 8.24 mm *(~0.32")*
Forced-Entry Resistance All sliding doors shall be tested according to *ASTM F842-04 & ASTM F842-14* Grade 10. *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.5* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.5*	**Passed** **Grade 20** T_1=5 min., L_1=2224 N *(~500 lbf)*, L_2=890 N *(~200 lbf)*, L_3=222 N *(~50 lbf)* & L_4=222 N *(~50 lbf)* + panel weight
Deglazing Test Deglazing < 90% of original glazing bite. The load for vertical sash members is 320 N *(~71.94 lbf)* and 230 N *(~51.71 lbf)* for all other rails. *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.6.3* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.6.3* *ASTM-E987-88 (2009)*	**Passed** Allowed : 13.4 mm *(0.52")* / 90% Measured : 3.5 mm *(0.13")* / 23% stile Measured : 3.0 mm *(0.11")* / 20% rail
Welded Corner Test When loaded to failure, the break shall not extend along the entire weld line. *AAMA/WDMA/CSA 101/I.S.2/A440-11 par. 9.3.6* *AAMA/WDMA/CSA 101/I.S.2/A440-17 par. 9.3.6.2*	**Passed** For each corner detail the breakage does not extend along the entire weld line (Panels). Not applicable for mechanical assemblies (Frame).

6.0 CONCLUSION

Based on the tests results, the fenestration product described in this report meets the requirements of the *AAMA/WDMA/CSA 101/I.S. 2/A440-11 (NAFS 2011), CSA A440S1-17, AAMA/WDMA/CSA 101/I.S. 2/A440-17 (NAFS 2017)* and *CSA A440S1:19* Standards regarding performance testing.

Detailed assembly drawings showing wall thickness of all members, corner construction and hardware application are on file and have been compared to the sample submitted.

The above results were secured by using the designated test methods and they indicate compliance with the performance requirements of the referenced specification. The test records from this evaluation will be retained for a minimum of four (4) years from the date of report issuance. This report does not constitute certification of this product, which may only be granted by a certification agency.

Note on the Limitation of Liability:
Due care was taken in performing the testing sequence and in reporting the results related to the test specimen received for evaluation. Through acceptance of this report, the Client agrees to exempt CLEB laboratory Inc. employees and owners from all liability claims and demands arising from any matter related to or concerning the quality and execution of the performance evaluation contained in this report.

7.0 REVISION LOG

Rev. #	Date	Page(s)	Revision(s)
1	2019-09-19	2/6	Change the dimensions of the panels
2	2020-09-25	1/6	Update the drawing S-8375 Series