



AAMA/WDMA/CSA JOINT TECHNICAL BULLETIN
Equivalency of Editions of NAFS

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PERTINENT JOINT AAMA/WDMA/CSA SPECIFICATION(S):

AAMA/WDMA/CSA 101/I.S.2/A440-05, Standard / Specification for windows, doors and unit skylights

AAMA/WDMA/CSA 101/I.S.2/A440-08, NAFS, North American Fenestration Standard / Specification for windows, doors, and skylights.

AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS, North American Fenestration Standard / Specification for windows, doors, and skylights.

AAMA, WDMA and CSA, as the Sponsors of NAFS, have conducted a side-by-side comparison of the testing and specification differences between the 2005, 2008 and 2011 editions of the North American Fenestration Standard (NAFS-05, NAFS-08 and NAFS-11). Based on this comparison, the Sponsors have determined that in all but a few instances the requirements of NAFS-11 are either identical to, or improvements to, the requirements of NAFS-05 and -08, or are language revisions that do not adversely affect the performance or durability of compliant products. Compliance with previous versions of NAFS does not constitute compliance with NAFS-11.

The Sponsors deem that except for the products specifically identified below, any product legitimately claiming full compliance to NAFS-11 (e.g., through certification by an ANSI-accredited certification agency or by product approval) also qualifies the product for full compliance to NAFS-05 and/or NAFS-08 without the need for additional specific testing or documentation¹. Further, the Sponsors agree that except for the products specifically identified below, any product legitimately claiming full compliance to NAFS-11 (e.g., through certification by an ANSI-accredited certification agency or by product approval) should be considered as having met NAFS-05 and/or NAFS-08 without the need to list these older superseded standards on the certification or product approval label.

The Sponsors encourage users, specifiers and code authorities to accept compliance to NAFS-11 as having satisfied any contract, specification or code requirement for compliance to NAFS-05 or NAFS-08.

The following is the list of nine (9) product categories to which this general equivalency does not apply:

1. Parallel Operating Windows (POW) and Secondary Storm Products (SSP) rated under NAFS-11 cannot claim compliance to NAFS-05 or NAFS-08, unless identified as Specialty Product.
2. Mullions rated under NAFS-11 cannot claim an MA rating to NAFS-05 or NAFS-08. (NOTE: Prior to NAFS-11, mullions were qualified in accordance with AAMA 450.)
3. Products rated under NAFS-11 cannot claim Class C in compliance with NAFS-05, unless specific testing and qualification has been evaluated, since Class C is no longer is used.
4. Products rated using Alternative Minimum Test Size provisions of NAFS-11 cannot claim compliance to NAFS-05.
5. Products rated under NAFS-11 that also claim compliance to NAFS-05 and/or NAFS-08 are permitted to use ASTM E1300-09a or later edition for glass strength and selection.
6. Side Hinged Doors (SHD) rated under NAFS-11 cannot claim compliance to NAFS-05 unless also qualified in accordance with AAMA 925-03 (vertical load testing).
7. Tubular Daylighting Devices – Closed Ceiling (TDDCC) and Tubular Daylighting Devices – Open Ceiling (TDDOC) rated under NAFS-11 cannot claim compliance to NAFS-05 unless identified as Specialty Product.
8. Skylights of any type rated under NAFS-11 cannot claim compliance to NAFS-05 or NAFS-08 unless the structural load test under negative load was conducted at 2 times the design pressure rating.
9. AW (sliding seal products) rated under NAFS-11 for Canadian only air exfiltration levels, cannot claim compliance to NAFS-05 and/or NAFS-08.

¹The AAMA Gold Label and WDMA Hallmark Certification Programs require that any certified product specifically labeled as complying with NAFS-05 and/or NAFS-08 must have submitted complete testing and compliance documentation to those standards in accordance with program procedures, and must then be specifically authorized by the program to label to those standards. AAMA and WDMA reserve the right to grant or rescind extension of equivalency to any specific certified product.

Comparison of Significant Criteria Between the 2005, 2008 and 2011 Editions of the NAFS Standards

Category/Topic	AAMA/WDMA/CSA 101/I.S.2/A440-05	AAMA/WDMA/CSA 101/I.S.2/A440-08	AAMA/WDMA/CSA 101/I.S.2/A440-11
General and Window Topics			
# of Total Product Types	30	31	36
Windows and Sliding Doors - Operator Type Codes	AP, ATD, BW, C, DAW, FW, GH, H, HE, HP, HS, J, JA, SD, SHW, SP, TH, VP, VS	Same as '05	Added POW, SSP, Changed ATD to ATW, GH to GW.
# of Performance Classifications	Five: (R, LC, C, HC, AW)	Four: (R, LC, CW, AW.) [Requirements for CW same as C in '05 but must also meet L/175]	Same as '08
Performance Grade Caps	Upper limit of 2880 Pa (60 psf) above Gateway except AW	Upper limit of PG 100 for R, LC, CW. No limit for AW.	Same as '08
Alternative Minimum Test Sizes and minimum PG for Class R Products	Not included	Added	Same as '08
US Operating Force	Force to maintain motion but test and record force to initiate	CW: Same as Class C in '05. Class R Hung increased to 35 lb. Class LC Hung increased to 40 lb.	Same as '08
Canadian Operating Force*	Optional	Optional, but now based on "Normal Use" and "Cleaning & Maintenance" categories	Same as '08
US Air Leakage	1.5 L/(s•m ²) (0.3 cfm/ft ²) and 0.5 L/(s•m ²) (0.1 cfm/ft ²)	CW: Same as Class C in '05.	Same as '08
Canadian Air Leakage*	Optional levels	Optional. CW: Same as Class C in '05.	Same as '08
Frame/Sash Permanent Deformation	0.4% for R & LC, 0.3% for C & HC, 0.2% for AW	0.4% for R & LC, 0.3% for CW, 0.2% for AW	Same as '08
Glass Strength Standard - basis of glass selection	ASTM E1300-02 - use weakest glass for testing	ASTM E1300-04 - use weakest glass for testing	ASTM E1300-09a- use weakest glass for testing
Secondary Storm Products	Not included		Added SSP
Lead content	0.02% max for finished framing & cladding per ASTM E1753 (not included for hardware)	Expanded the explanation and added ASTM E1613 as a confirmation test if E1753 test is positive.	Updated testing for framing / cladding to match US EPA field testing, and expanded criteria for testing hardware
Wood requirements	Max. 12% moisture content. Adhesives compliant with ASTM D5572 and D5751. Treated per WDMA I.S.4	Added ASTM D4442 for determining moisture content,	Same as '08, but removed reference to ASTM D4442.
Mullions	Examples & Illustrations only	Same as '05	New ratings and designations
Definition of "DP" and "PG"	DP = design pressure rating based on lowest air/water/structural performance	PG = Performance Grade based on lowest air/water/structural performance; DP = design pressure	Same as '08
Laboratory Test Report	Documentation and drawings required by ASTM and additional ratings supplied by mfr.	Removed drawings required by ASTM and additional ratings language	Same as '08
Topics specific to Exterior Doors			
Exterior Doors - Operator Type Codes	DASHD, FD, LW-DASHD, LW-SHD, SHD, SLT, TR	Same as '05	Same as '08
US Operating Force for SHD	Force to maintain motion but test and record force to initiate	CW: Same as Class C in '05. Measure and record force / torque to operate dead-bolt for SHD.	Same as '08
Side-Hinged Exterior Door Systems Operation/Cycling	R (25,000), LC (100,000), C (250,000), HC, except ATD (500,000), HC ATD (25,000), AW, except ATD (1,000,000), AW ATD (25,000)	R (25,000), LC (100,000), CW (250,000), AW, except ATD (500,000), AW ATD (25,000)	Same as '08
Cycle/Operating Testing for SHD	Added	Same as '05, but added measurement of dead-bolt operating force.	Same as '08
Vertical Load Testing for SHD	Per AAMA 925-03	Per AAMA 925-07 (removed pass/fail)	Same as '08
Topics specific to Skylights, TDDs and Roof Windows.			
Skylights, TDDs and Roof Windows - Operator Codes	RW, SKG, SKP	Added TDD	Added RWG, RWP; changed TDD to TDDCC and TDDOC; dropped TDD
Performance Classes	Three (R, C, HC)	Two (R and CW)	None
Tubular Daylighting Devices	Not included	Added TDD	Changed to two operator designations, and revised testing for closed ceiling and open ceiling types
Skylights Structural Test Load - Glass	2.0 times Design Pressure (DP), Positive and Negative	Same as '05	2.0 x DP, Pos. and 1.5 x DP Neg.; not required to apply test load more than 100 psf higher than rated PG.

*Required for Canadian Code compliance under A440S1-09

