



WOODSTONE® GENERAL WINDOW & DOOR PERFORMANCE SPECIFICATIONS

PERFORMANCE: Window and Door performance, as described in the *AAMA/WDMA/CSA 101/I.S.2/A440-05 Standard/Specification for windows, doors, and unit skylights* is typically established or accredited by the following associations.

American Architectural Manufacturers Association *AAMA*
1827 Walden Office Square, Suite 550
Schaumburg, IL 60143-4268 USA
www.aamanet.org

Window & Door Manufacturers Association *WDMA*
1400 East Touhy Avenue, Suite 470
Des Plaines, IL 60018 USA
www.wdma.com

Canadian Standards Association *CSA*
5060 Spectrum Way, Suite 100
Mississauga, Ontario, L4W 5N6 Canada
www.ShopCSA.ca

American National Standards Institute *ANSI*
1819 L Street, NW, 6th Floor
Washington, DC 20036
<http://www.ansi.org/>

See (<http://www.aamanet.org/upload/CMB-5-05.pdf>)

Performance standards are typically quantified for air leakage resistance, water penetration resistance, design load, structural load and, where required, forced-entry resistance and operating force.

The AAMA/WDMA/CSA 101/I.S.2/A440-05 Standard performance values (Hallmark Program) are intended for application to windows and doors manufactured to standard (stock) specifications. Custom windows and doors specified and manufactured to unique architectural or landmark historic design requirements, such as those specified in this proposal, must be tested on a unit by unit basis in order to attain certification. Therefore, any warranty that windows and doors be ‘certified’ as meeting AAMA/WDMA/CSA 101/I.S.2/A440-05 Standard performance values or any other performance standard is not included unless specifically indicated in the specifications.

WOODSTONE GENERAL PERFORMANCE SPECIFICATIONS **continued:**

PERFORMANCE DATA/TESTING: Performance ratings for various Woodstone products include carefully engineered weather-stripping details and, while specified alternate weather-stripping may be similar, variations in performance will occur when weather-stripping details vary from those used in the test units. **Formal certification of specific units requires that mockups be manufactured and submitted to an independent test lab under a separate contract.**

Current Test Data on similar custom fabrications are available for consideration. Woodstone's test descriptions and results show that previously tested products are representative of those proposed in most projects. **Additional testing that may be required specific to this project is not included unless specified in the Woodstone proposal.**

While the details that have been discussed and that are priced in the Schedule of Values may differ from those used in Woodstone's most recent test units, we are confident that our default details will achieve a level of performance according to these generally accepted standards unless noted herein.

Woodstone warrants that the units included in this proposal, while not 'certified', are typically designed to achieve the following performance standards unless otherwise noted.

- air leakage resistance of 0.3 cfm per lineal. ft. of crack at 1.57 psf .
 - o with the exception of certain door, in-swing casement and tilt & turn units.
- water penetration resistance – none at 6.24 psf.
- Minimum Design Pressure - 30 psf.
- Minimum Structural Test Pressure - 45 psf.
- forced-entry resistance – not included unless specified.
- Maximum operating force – 30 lbs.
- R Value/U Value – 2.2/.46 for clear glass and standard ½” IG air space.

NOTE: Air infiltration performance for door thresholds and certain in-swing casement and tilt & turn units cannot be achieved without completely sealing the water weep holes in the interlocking thresholds which Woodstone does not recommend unless modified to include an interior drainage system in place of the typical exterior weep holes that allow infiltrated water to weep from the threshold to the exterior.

Other available performance standards not included unless specified:

- air leakage resistance of 0.1 cfm per lineal. ft. of crack at 1.57 psf.
 - o exceeds highest AAMA/WDMA/CSA 101/IS.2/A440-05 Performance Standards.
 - o with the exception of certain door, in-swing casement and tilt & turn units.
- Minimum Design Pressure - 40 psf.
- Minimum Structural Test Pressure - 60 psf.
- Sound Transmittance Performance (STC Rating).
- National Fenestration Rating Council (NFRC) Energy Star Rating.
- Impact Resistance.

See Woodstone specifications for Samples and Mock-ups and Structural Engineering.

WOODSTONE GENERAL PERFORMANCE SPECIFICATIONS continued:

SAMPLES AND MOCK-UPS: Limited samples of various window and door components including but not limited to, screen fabric, finish chips, IG spacer, glass and some standard hardware items, are typically supplied for review without additional charge. Some samples require deposits and/or additional charges and these samples must be returned to Woodstone to have the additional charges credited back to you. Significant samples and mock-ups requiring custom fabrication are typically not included unless specified in detail. If this project requires significant samples or mock-ups for approval, it is recommended that they be specified under separate contract and specified in detail under an explicit section # designation.

STRUCTURAL ENGINEERING: **This proposal does not include a Structural Engineering Review of any elements unless specified.** Determination of the structural performance of elements, including but not limited to the Sash, Doors, Jambs, Wall Frame and Rough Opening elements, Mullions and Sill-To-Headers (horizontal Mullions), as a whole, in part or separately, are not included unless specified. A comprehensive structural engineering review service is available for various levels of certified review only under a separate proposal.

Vinyl Jamb Liners: Vinyl Jamb Liners are manufactured by others and, while Woodstone can warrant that the sash installed in Vinyl Jamb Liners will achieve the specified performance listed, the vinyl jamb liner manufacturer warrants that the jamb liners will also achieve the standards when correctly installed, Woodstone cannot warrant the installation of the sash & jamb liners together because of conditions that are beyond Woodstone's control. Formal certification of specific units requires that mockups be manufactured and submitted to an independent test lab under a separate contract.

Last Revised 5-12-09 HJE