



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/file/CMB-5-05_Excerpt.pdf)

Performance standards are typically quantified for air leakage resistance, water penetration resistance, design load, structural load and, when required, light-wave and heat transmittance, sound transmittance, 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 performance 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 this project. While the details that have been discussed and that are included in the Schedule of Values may differ from those used in Woodstone's most recent test units, it is reasonable to assume the referenced details will achieve a sufficient level of performance according to generally accepted standards unless noted in the proposal. However, **occasional site conditions may exceed the performance level of the specified details. Additional testing that may be required specific to this project is not included unless specified in the Woodstone proposal.**

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 . (Performance Exceptions noted below).
- Water penetration resistance – none at 6.24 psf. (Performance Exceptions noted below).
- 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.

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 AAMA/WDMA/CSA 101/LS.2/A440-05 Performance Standards. (Performance Exception Noted below)
- 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.

Performance Exceptions:

The units specified in your proposal may be historic replications or otherwise custom designed and, as such, include unique details that may not conform to the Design Pressure, Water and Air Infiltration, Operating Force or Forced Entry requirements typical of stock windows and doors as listed in the Quality Assurance specifications provided with your request for pricing. If performance certification is required, there are two processes typically available: a certified engineering review by a licensed structural engineer or fabrication of a mock-up unit with the unique details specified for testing by a certified testing laboratory. Both options are available at additional cost.

WOODSTONE GENERAL PERFORMANCE SPECIFICATIONS continued:

Air and Water infiltration performance for door thresholds and certain in-swing casement and tilt & turn window units cannot be achieved without revising the weather-strip system specified in this proposal. Revisions may include, but not be limited to, completely sealing the water weep holes in the interlocking thresholds, which Woodstone does not recommend unless the threshold is 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.

Exposed Locations:

If your project is in an exposed location (including but not limited to being exposed to high wind, direct rain, irrigation, significantly above grade, near a coast or at high elevation), Woodstone recommends out-swing primary doors or out-swing storm doors or combination storm/screen doors. Primary Door units should be 2 1/4" thick with multiple weather-strip layers at the sides & head and at the sill. Storm doors and/or custom thresholds are not included at this time unless specifically indicated.

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

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.

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