



Quick Reference Guide to Vinyl Window Certification



**American
Architectural
Manufacturers
Association**

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Quick Reference Guide to

The Foundation: Performance Standards

Testing for AAMA whole unit product certification is based on AAMA/WDMA/CSA101/I.S.2/A440-05, "Standard/Specification for Windows, Doors, and Unit Skylights." Testing may additionally be conducted per AAMA/NWWDA 101/I.S. 2-97 and/or AAMA/WDMA 101/I.S. 2/NAFS-02.

AAMA Certification rates all window types and classes from a material-neutral, performance-oriented point of view for structural performance under wind loading, and resistance to air leakage and water penetration. The program also offers manufacturers optional performance ratings that can be achieved by showing compliance with corresponding requirements through additional testing. Furthermore, key component manufacturers must assure window fabricators that their products meet appropriate AAMA standards by having products tested for compliance at an AAMA-accredited laboratory and listed in the AAMA Verified Components List (VCL) or AAMA Profile Certification Program.

How to Find Out More

Though the AAMA Certification Program is not material-specific, this quick reference guide provides a step-by-step overview of the vinyl window and sliding glass door certification process. It addresses eligibility, costs, timeline, program requirements, quality assurance and optional testing. For full details on the operation and requirements of the AAMA Certification Program, refer to AAMA Procedural Guide 103.

Eligibility

Any manufacturer whose products meet AAMA/WDMA/CSA 101/I.S. 2/A440-05 and are assembled using components that comply with applicable standards may participate in the program after signing the license agreement. AAMA membership is not required.

Getting Started

First, a new Licensee should confirm that all components used in the window or sliding glass door are listed in the AAMA Verified Components List. Additionally, for vinyl products, the structural and glass-retaining vinyl profiles must be themselves certified as compliant to AAMA 303-05, "Voluntary Specification for Poly (Vinyl Chloride) (PVC) Exterior Profiles." The requirements include impact resistance, dimensional stability, heat resistance, weight tolerance and color fastness. Authorized profile licensees are included on a list on the AAMA web site or manufacturers may contact the Program Validator for verification. *(Note: AAMA-certified profiles (in white only) are recognized and accepted by Dade County in Florida.)*



Additionally, because the AAMA Certification Program is based on a conviction that any quality standard must include continuous adherence to the requirements of the standard, the program requires Licensees to maintain a manual of defined procedures and stipulations for ongoing in-plant quality control.

The next step in the AAMA Certification Program process is then to apply for and sign a License Agreement, which is available from AAMA headquarters or from the Validator. This agreement should be completed and returned by mail to the Product Certification Manager at AAMA headquarters.

How Long Will the Process Take?

Arranging for and completing initial qualifying testing is the primary variable. Each Licensee will have to determine lead time from the selected AAMA-accredited test laboratory. As discussed, using AAMA-certified extrusions and components from the AAMA VCL in production will ensure that verified components provisions of the Certification Program are met and preclude unnecessary delays. Proper preparation and submittal of documentation during the initial steps will also help to expedite the process.

Once the laboratory submits the complete and accurate test report to the Validator, the lead time to obtain official certification authorization from AAMA is typically less than one week.

Contact Information

Program Validator
Associated Laboratories, Inc. (ALI)
P.O. Box 152837 (75315)
1323 Wall Street
Dallas, TX 75215
Phone: 214-565-0593
Fax: 214-565-1094

Product Certification Department
American Architectural Manufacturers Association (AAMA)
1827 Walden Office Square, Suite 550
Schaumburg, IL 60173
Phone: 847-303-5664
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What Does Certification Cost?

The Licensee is responsible for testing fees (paid directly to the selected AAMA-accredited laboratory). Testing fees must be quoted directly by the laboratory. Additionally, the Validator bills each licensee \$750 twice each year for the two required unannounced annual plant inspections (*international licensee inspection fees will be higher due to higher travel costs*). Licensees must also purchase certification labels from AAMA (fees range from \$16 per 1000 labels to \$28.50 per 1000 labels; optional test tabs may increase label fees slightly). (*New fee structure applies effective 1/1/08.*)

The Certification Process

For initial certification to the applicable standard, the Licensee submits a product sample that is representative of the product line in terms of type, operation, performance class, size, and components to one of the AAMA-accredited independent laboratories of the manufacturer's choosing (a list of accredited labs is available from the AAMA web site). The sample submitted must be complete with all sections and components to be tested in accordance with the specifications, together with drawings and the bill of materials showing component manufacturers' names and part numbers. Every product represented by the sample that complies with ASTM E 1300 for glazing selection and is equal to or smaller than the sample's size is covered by the test. In addition, the test specimen must meet minimum size requirements.

The laboratory conducts the requisite tests on the prototype samples according to methods specified in AAMA/WDMA/CSA101/I.S.2/A440-05 (and AAMA/NWWDA 101/I.S. 2-97 or AAMA/WDMA 101/I.S. 2/NAFS-02, if requested). Welded or chemically bonded thermoplastic products must additionally pass a corner weld test. The laboratory submits the test report along with drawings and bills of materials to the Validator, who reviews them to verify that the laboratory followed proper procedures and all required paperwork is complete.

Once all tests and conformance to requirements are verified, AAMA issues an Authorization for Product Certification (APC) to the manufacturer, who may then purchase and apply AAMA Certification Labels to production line units that conform to the design that was tested. Note that individual products are not certified unless a label is actually affixed to them.

All drawings, specifications, test/inspection reports and related documentation remain the intellectual property of the manufacturer and is not disclosed to any third party without the manufacturer's express written permission.

Certified Products Directory (CPD)

Products approved for AAMA labeling and their manufacturers are automatically listed in the AAMA Certified Products Directory (CPD), the industry's ultimate sourcebook for certified quality products. Available on-line as a searchable database from the AAMA web site or in print, the Directory is widely recognized by specifiers as the definitive guide to purchasing performance-certified windows and doors.

Unannounced Plant Inspections

The Validator subsequently conducts two unannounced inspections per year at each manufacturing plant location to verify that production line units being labeled are equivalent to the tested prototype. Inspectors check the completeness of the plant's quality control records and confirm that certified profiles and verified components are being used in the manufacture of the certified products.

At least once every four years, the manufacturer must re-test the product to verify that the design continues to comply with the standard's requirements.

Optional Testing and Label Tabs

As AAMA is also an Independent Certification and Inspection Agency (IA) for the National Fenestration Rating Council's (NFRC) Certification

Program, thermal testing is a popular available option. Manufacturers may choose to pursue thermal performance certification as an add-on to air-water-structural certification or as a stand-alone credential.

Other optional tests that may be conducted at additional cost (and for which label extension tabs are available to demonstrate compliance) include:

- Forced Entry Resistant or Security Tested (when tested per additional requirements)
- Impact Resistant (AAMA 506 or Miami-Dade TAS 201/203)
- Muller Assembly (when tested per AAMA 450)
- Tested Negative Design Pressure (when the negative tested pressure exceeds the positive tested pressure)

A Recognized Sign of Quality

With windows authorized for certification, a manufacturer can use the AAMA name and logo to promote the performance of its certified products.

The AAMA Certification Label tells customers that a product has been verified as conforming to building code-mandated industry standards through independent laboratory testing and follow-up inspection of the manufacturer's production line.



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Licensed Window Designs

Note that the AAMA Certification Program allows fabricators to certify windows built to an extruder's design. To do so, the fabricator must become an AAMA Certification Program Licensee and comply with all program requirements, including semi-annual plant inspections. Under this provision, the extruder builds a sample window per its design and has it tested. Then, the extruder can have the laboratory re-issue the test report with a cover page in the licensed fabricator's name.

Additional Certification Program Resources

The technical documents listed below are those basic to the AAMA Certification Program for vinyl windows and sliding glass doors. Refer to Procedural Guide 103 for details about exactly where specific performance criteria and testing procedures can be found within each of these documents.

Procedural Guide 103

Procedural Guide 109

Application and License Agreement

CMB-1: Technical overview of product certification performance requirements and testing

CMB-2: Product certification fee schedule

CMB-3: Excerpt of AAMA/NWWDA 101/I.S. 2-97

CMB-4: General promotional overview of certification program value

CMB-5: Excerpt of AAMA/WDMA/CSA 101/I.S. 2/A440-05

AAMA/NWWDA 101/I.S. 2-97

AAMA/WDMA 101/I.S. 2/NAFS-02

AAMA/WDMA/CSA 101/I.S. 2/A440-05

AAMA 303-01 *Voluntary Specification for Poly (Vinyl Chloride) (PVC) Exterior Profiles*

VPCG-06 *Quick Reference Guide to Rigid Vinyl Profile Certification*



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