



TEXAS DEPARTMENT OF INSURANCE

Regulatory Policy Division - Engineering Services Program (103-3A)

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Submittal Requirements for Product Evaluation - Windows

The Texas Department of Insurance (TDI) will use the information and product requirements requested below to develop a product evaluation report for exterior windows for use in the designated catastrophe areas along the Texas Gulf Coast. The product evaluation report will identify the product, specify the maximum design pressure limitations, specify the wind zones where windborne debris resistant products may be used (if applicable to the product), specify the applicable component dimensions, describe the tested assembly, specify the applicable installation methods, and specify the fastener specifications used. There is no fee for the evaluation of the product by the TDI. This evaluation is not intended to preclude a Texas licensed professional engineer from using testing information or ICC evaluation reports that have not been submitted to the TDI for certifying compliance with the building specifications adopted by the TDI.

1.0 Minimum Information Required for Evaluation

Provide the requested information in the form of a complete and organized package. Mail the package to TDI at the address at the top of this document. The submittal must include a cover letter and the substantiating information specified in Section 5.0. The cover letter needs to include the following:

- 1.1 The manufacturer's full name and address
- 1.2 The manufacturer's engineering or technical representative contact, including telephone number, fax number, and e-mail address
- 1.3 The manufacturer's contact phone number for local sales information
- 1.4 The name (model, series number, etc) of the product(s)
- 1.5 Indicate whether the products are impact resistant or non-impact resistant
- 1.6 A description of the substantiating information as specified in Section 5.0 for each product included in the submittal.
- 1.7 Optional: Provide an electronic version of a draft TDI product evaluation report.
- 1.8 Optional: Electronic drawings that illustrate the construction and installation of the product(s) and are consistent with the submitted test data or evaluation information requested by the manufacturer. Drawings will be included in the evaluation to provide guidance and to clarify the use of the product in the field. Provide one hard copy of the drawings and one electronic copy (PDF) saved to a CD or DVD. TDI may use the electronic copy to post the drawings on the TDI Windstorm Inspections Program Product Evaluation Index website.
- 1.9 Indicate if the submitted information is regarding a new product evaluation or the revision of an existing evaluation. If the information is for a revision, please indicate the existing TDI evaluation number.

2.0 Building Code Requirements for Products

- 2.1 TDI will evaluate the products according to the wind load criteria of Chapter 3 of the 2006 International Residential Code (IRC); the wind load criteria of Section 1609 of the 2006 International Building Code (IBC); test standards; performance criteria; and labeling requirements referenced in the IRC and the IBC and the Texas Revisions to the IRC and the IBC; and nationally recognized test standards or procedures.
- 2.2 Basic design wind speed requirements for construction in the designated catastrophe areas along the Texas Gulf Coast are as follows:
 - Inland II Zone: 110 mph, 3-second gust
 - Inland I Zone: 120 mph, 3-second gust
 - Seaward Zone: 130 mph, 3-second gust

- 2.3 Design Pressure Requirements: The exterior window product must have a minimum design pressure rating of 25 psf. Refer to either Table R301.2(2) of the IRC or ASCE 7 for design wind pressure requirements. The manufacturer should consider that Exposure B and C conditions can occur in each wind zone.
- 2.4 Windborne Debris Requirements: For construction in the Inland I Zone, glazed exterior opening products must either be designed to resist windborne debris or be protected from windborne debris by an impact protective system. For construction in the Seaward Zone, either design all exterior opening products must to resist windborne debris or provide protection from windborne debris by an impact protective system.

3.0 Product Applicability and Limitations of Evaluation Report

- 3.1 Evaluation of a product does not constitute approval of the product for use on all structures. The design pressure rating of the product (as reported in the TDI evaluation) must exceed the required design pressure required for the specific structure. In addition, the windborne debris resistance rating for the product (as reported in the TDI evaluation) must comply with the required windborne debris criteria for the specific structure.
- 3.2 TDI will develop the product evaluation report based on the manner in which the product was tested. This includes the attachment of the product to the test buck and the material used for the test buck. NOTE: *Test products as they are installed in the field. Test products with a test buck or framing utilizing common framing materials and be attached to the test buck or framing with readily available, commonly used fasteners.*
- 3.3 If the window product is tested with fasteners penetrating through a nailing fin, such as for new construction windows and a frame installation option is desired (such as for replacement windows), then a fastener analysis may be submitted to the TDI. The fastener analysis must include the following:
 - The analysis must include the fastener type, size, and spacing along the window frame.
 - The analysis must include the minimum species of lumber required for the wall framing.
 - The analysis must specify the minimum penetration of the fastener into the wall framing.
 - The analysis must utilize the NDS for withdrawal and shear.
 - A Texas licensed professional engineer must sign, seal, and date the analysis.
- 3.4 TDI will list window products tested as individual windows as individual windows. TDI will list window products tested as mulled assemblies as mulled assemblies. If you'd like a mulled assembly listing for a product that was tested as an individual product, then either test the product as a mulled assembly or submit a mullion analysis. If the product is tested, then the product may be tested in accordance with Section 4.0 of this document or AAMA 450. If sua mullion analysis is to be submitted, then the mullion analysis must include the following:
 - Conduct the analysis in accordance with Section R613.9 of the 2006 IRC.
 - The analysis must specify how the mullion is secured to the wall framing (include the fastener type, size, spacing, quantity and penetration distance into the wall framing. Also specify the species required for the wall framing).
 - The analysis must specify how the window frames are secured to the mullion (include the fastener type, size, location, and spacing).
 - A Texas licensed professional engineer must sign, seal, and date the analysis.

4.0 Testing and Test Report Minimum Information Requirements

- 4.1 Testing facilities that comply with one of the following must develop test reports:
 - 4.1.1 The test facility shall be either UL (Underwriters Laboratories) or FM (Factory Mutual)
 - 4.1.2 The International Code Council Evaluation Service (ICC-ES) as specified in ICC-ES Acceptance Criteria AC85 must recognize the test facility
 - 4.1.3 AAMA or WDMA must accredit the test facility
 - 4.1.4 Miami-Dade County, Florida must recognize the test facility; or
 - 4.1.5 TDI must accept the test facility. TDI will accept test facilities that are accredited as complying with ISO/IEC Standard 17025 by the International Accreditation Service (IAS) or by any other accreditation body recognized by the International Laboratory Accreditation Cooperative (ILAC)

Mutual Recognition Agreement (MRA). The scope of the accreditation shall include the type of testing covered in the submitted test reports.

Manufacturer's test facility: If the manufacturer performs in-house testing, then the manufacturer shall have the testing conducted under the supervision of an independent testing facility that qualifies under Sections 4.1.1 through 4.1.5. The test report shall be prepared by and issued by the supervising party.

TDI reserves the right to request that the testing facility provide documentation to verify compliance with Sections 4.1.1 through 4.1.5.

- 4.2 Window products must be tested and bear a label indicating compliance with AAMA/WDMA/CSA 101/I.S.2/A440 as specified in Section R613.4 of the 2006 IRC and Section 1714.5.1 of the IBC.
- 4.3 If you'd like TDI to list the window product as windborne debris resistant, then in addition to complying with Section 4.2 of this document, test the window product in accordance with ASTM E 1886 and ASTM E 1996 or in accordance with AAMA 506 and bear a label indicating compliance with either AAMA 506 or ASTM E 1886 and ASTM E 1996 and indicate the missile level and design pressure rating.
- 4.4 An independent test laboratory must develop the test report. The test report must include the following minimum information:
 - Date of testing
 - Date of report
 - Test standards for which the product was tested
 - Description of the product to include model, series or product name
 - Overall dimensions of the tested assembly
 - Component dimensions of the tested assembly (such as sash or vent sizes)
 - Size of the fixed daylight opening in single hung and horizontal sliders
 - Description of the tested assembly
 - Frame construction, including corner construction.
 - Glass construction and glazing method
 - Hardware description, quantity, and locations
 - Reinforcement requirements (material, dimensions, and location in the assembly)
 - The species of the lumber used for the test buck (the lumber that the window was secured to during testing)
 - Description of fasteners used during testing to secure the product to the test buck. Include fastener type, size, length, and spacing
 - Test result criteria as required by the applicable test standard

5.0 Substantiating Information

- 5.1 Include the following information as part of the submittal package for each product:
 - Cover letter as described in Section 1.0.
 - Test report in accordance with AAMA/WDMA/CSA 101/I.S.2/A440
 - Optional: Lab stamped drawings that go with the AAMA/WDMA/CSA 101/I.S.2/A440 test report (Provide if requested by the TDI during review process).
 - Test report in accordance with either AAMA 506 or ASTM E 1886 and ASTM E 1996 (required for windborne debris resistant products).
 - Optional: Lab stamped drawings that go with the AAMA 506 or ASTM E 1886 and ASTM E 1996 test report (Provide if requested by the TDI during the review process).
 - Copy of the label that will be applied to the window product. The label must comply with Section R613.4 of the 2006 IRC or Section 1714.5.1 of the 2006 IBC. The label shall be from an inspection agency (AAMA, WDMA, NAMI, or Keystone). NOTE: For windborne debris products, the label shall also indicate compliance with either AAMA 506 or ASTM E 1886 and ASTM E 19896 and specify missile level.

- Copy of the certification document from the inspection agency for the tested product. Examples include the following:
 - Authorization for Product Certification (AAMA)
 - Notice of Product Certification (NAMI)
 - Hallmark Certificate of Conformance and License (CCL) (WDMA)
 - Certification Authorization Report (CAR) (Keystone)
- NOTE: The label provided must match the criteria specified on the certification document.
- Installation instructions

6.0 Expiration and Renewal of Evaluation Reports

- 6.1 Certification of the product by the inspection agency shall be current.
- 6.2 The TDI will utilize a test report as long as the test report is current, the test standards that the product was tested to have not changed, the test standards for the product required by the building specifications adopted by the TDI have not changed, the product specified in the test report has not changed and, the product is certified by the inspection agency.
- 6.3 The TDI reserves the right to request verification from the product manufacturer that the product specified in the test report has not changed.
- 6.4 If the test report indicates an expiration date and the test report is expired, then revise the test report to either remove the expiration date, change the expiration date, or add a record retention date.
- 6.5 If the test report indicates an expiration date that is within six months of expiring, then TDI reserves the right to request you to revise the test report to either remove the expiration date, change the expiration date, or add a record retention date.
- 6.6 For an initial product evaluation, if the test report does not indicate an expiration date or if it specifies a record retention date, then the TDI reserves the right to refuse to utilize the test report if the test laboratory is not able to provide information relative to the testing of the product specified in the test report.
- 6.7 For the renewal of an existing product evaluation, if the test report does not indicate an expiration date or if it specifies a record retention date, then the TDI may continue to utilize the test report if no changes have occurred in the product.
- 6.8 The evaluation report will expire four years from the effective date of the evaluation report or when the certification from the inspection agency (AAMA, WDMA, NAMI, or Keystone) of the products listed in the evaluation report expires, whichever is less time.
- 6.9 TDI will base the expiration date for the evaluation report on the date the product was tested as indicated in the test report.
- 6.10 The evaluation report will indicate the month and year of the expiration date.