

## Submittal Requirements for Product Evaluation Shutters

The information and product requirements requested below will be used by the Texas Department of Insurance (TDI) to develop a product evaluation report for use in the designated catastrophe areas along the Texas Gulf Coast.

### Exception:

**Wood Structural Panel Shutters:** Wood structural panel shutters may be installed in accordance with Section R301.2.1.2 of the 2018 International Residential Code (IRC) or Exception 1 of Section 1609.2 of the 2018 International Building Code (IBC). These shutters are not required to be tested for windborne debris resistance. An evaluation report is not developed for these shutters.

### 1.0 Building Code Requirements for Products

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- 1.1 Products will be evaluated by TDI in accordance with the wind load criteria of Chapter 3 of the 2018 IRC; the wind load criteria of Chapter 16 of the 2018 IBC; test standards and performance criteria specified in the IRC and the IBC; and nationally recognized test standards or procedures.
- 1.2 **Basic Design Wind Speed Requirements:** The basic windspeed requirements for the windstorm program area are as defined in the IRC and the IBC. Contact TDI for more information regarding the basic wind speed requirements.
- 1.3 **Design Pressure Requirements:** Refer to Chapter 3 of the IRC or to ASCE 7-16 for design wind pressure requirements based on the basic wind speeds that are required for TDI windstorm program area. The manufacturer should consider that different Exposure conditions can occur for all structures that are located within TDI windstorm program area. Contact TDI for more information regarding design pressure requirements.
- 1.4 **Windborne Debris Requirements:** Protection from windborne debris is a requirement within the TDI windstorm program area. NOTE: It is not a requirement that the product be impact resistant in order for TDI to develop an evaluation report for the product. Contact TDI for specific windborne debris requirements for TDI windstorm program area.
- 1.5 **Wood Structural Panel Shutters:** Evaluation reports developed for wood structural panel shutters shall require a minimum of 7/16" wood structural panels ( plywood or OSB) and shall be installed on one- and two-story buildings (even if the resultant design pressure from the testing would permit a higher installation height).

### 2.0 Product Applicability and Limitations of Evaluation Report

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- 2.1 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 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 report) must comply with the required windborne debris criteria for the specific structure.

- 2.2 TDI will develop the product evaluation report based on the way the product was tested. This includes the attachment of the product to the test buck and the material used for the test buck. **NOTE:** Products should be tested as they would be installed in the field. Products should be tested 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.
- 2.3 **Fastener Analysis for Alternative Substrates:** Fastener analysis for alternative installation methods is permitted. Fastener analysis is permitted if the shutters are tested secured to concrete block. Analysis shall demonstrate equal or greater withdrawal and/or shear resistance of the fasteners into the alternative substrate (wood, concrete, or metal) to the withdrawal and/or shear resistance of the fasteners into the tested substrate (concrete block). The spacing of the fasteners into the alternative substrates must not exceed the spacing of the fasteners into the tested assembly. Increasing the fastener spacing from the spacing used in the tested assembly must be verified with a test
- 2.4 **Mounting Conditions:** Each mounting condition for the shutter assembly (such as wall mount, inside mount, built-out, etc.) must be tested for uniform static load resistance and for impact/cyclic resistance. Mounting conditions may be combined in a test specimen (such as wall mount at the top of the specimen and inside mount at the bottom of the test specimen).
- 2.5 **Shutter Offset Distance:** Requirements for determining whether a shutter needs to be offset from a fenestration assembly must be based on the criteria in the test standard they were tested to.

### 3.0 Testing and Test Reports

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- 3.1 **Testing Facility:** Test reports must be developed by testing facilities that comply with one of the following:
  - 3.1.1 The test facility must be either UL (Underwriters Laboratories) or FM (Factory Mutual);
  - 3.1.2 The test facility must be recognized by the International Code Council Evaluation Service (ICC-ES) as specified in ICC-ES Acceptance Criteria AC85;
  - 3.1.3 The test facility must be accredited by either AAMA or WDMA;
  - 3.1.4 The test facility must be recognized by Miami-Dade County, Florida; or
  - 3.1.5 The test facility must be accepted by TDI. 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 must 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 must have the testing conducted under the supervision of an independent testing facility that qualifies under Sections 3.1.1 through 3.1.5. The test report must 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 3.1.1 through 3.1.5.

3.2 **Uniform Static Load Resistance:** Shutters shall be tested in accordance with ASTM E 330.

**Exception:** Shutters may be tested in accordance with TAS-202.

3.3 **Windborne Debris Resistance:** In addition to the requirements in Section 4.2, the shutter shall also be tested in accordance with ASTM E 1886 and ASTM E 1996.

**Exception:** Shutters may be tested in accordance with TAS-201 and TAS-203.

3.4 **Label:** The shutters are required to bear a label. The shutters are not required to bear a label from an inspection agency unless they are certified and listed with an inspection agency (such as AAMA, NAMI, WDMA, or Keystone). In such a case, a copy of the inspection agency label and certification document shall be submitted. If the shutters are not listed with an inspection agency, then the manufacturer shall provide a manufacturer-produced label. The manufacturer-produced label shall include: (1) the name of the product, (2) the name of the product manufacturer; (3) a statement indicating the design pressure rating and allowable dimensions of the assembly are as specified in Drawing XXX (XXX is the drawing no.); (5) compliance with ASTM E 330-14, ASTM E 1886-13a and ASTM E 1996-14a; and (6) the Missile Level.

**Exception:** Shutters tested in accordance with TAS 201-94, TAS 202-94, and TAS 203-94 shall include these test standards on the label and indicate either 'Large Missile Impact Rated' or 'Small Missile Impact Rated.'

#### **4.0 Substantiating Information**

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The following information must be included as part of the submittal package for each product to be listed:

4.1 **Test Reports.** Copies of test reports in accordance with either ASTM E 330 or TAS 202.

Copies of test report in accordance with either ASTM E 1886 and ASTM E 1996 or TAS-201 and TAS-203.

4.2 **Lab Stamped Drawings.** Copies that reference the test report numbers

- 4.3 **Label.** Copy of the label that will be applied to the shutter product. Refer to Section 4.4 for specific label requirements. Provide one copy.
- 4.4 **Certification Documents.** For shutters listed with an inspection agency (AAMA, WDMA, Keystone, or NAMI), provide a copy of the certification document from the inspection agency for the tested products. 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 certification agency label provided must match the criteria specified on the certification document.
- 4.5 **Fastener Analysis (Optional but Required for Alternative Fasteners and Substrates):** Provide one copy. The analysis must reference the standards used and indicate compliance with the 2018 IRC and the 2018 IBC. The analysis must be signed, sealed, and dated by a Texas licensed professional engineer
- 4.6 **Design Drawings:** Provide one copy. The design drawings must include a title block with the drawing number, name of the product, name and address of the manufacturer, the date of the drawing, and the revision date(s) if applicable), dimensioned elevations of the assemblies, design pressure ratings, separation from glass requirements, component details, substrate requirements, installation requirements, and mullion requirements (mullion and anchor clip dimensions and material, method of attachment of shutters to mullions, method of attachment of clips to the mullions and to the structure). The design drawings must reference compliance with the 2018 IRC and the 2018 IBC. The design drawings must be signed, sealed, and dated by a Texas licensed professional engineer. TDI will reference the design drawings in the evaluation report and will post the drawings on TDI website with the product evaluation report
- 4.7 **Draft Evaluation Report (Optional):** Provide an electronic WORD version of a draft TDI product evaluation report.

## **5.0 Expiration and Renewal of Evaluation Reports**

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- 5.1 Products Certified Through an Inspection agency (AAMA, WDMA, NAMI, or Keystone)
- Certification of the product by the inspection agency must be current.
  - 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 TDI have not changed, the product specified in the test report has not changed and, the product is certified by the inspection agency.
  - TDI reserves the right to request verification from the product manufacturer that the product specified in the test report has not changed.
  - If the test report indicates an expiration date and the test report is expired, then the test report must be revised to either (1) remove the expiration date, (2) change the expiration date, or (3) add a record retention date.

- If the test report indicates an expiration date and the test report is within six months of expiring, then TDI reserves the right to request that the test report be revised to either (1) remove the expiration date, (2) change the expiration date, or (3) add a record retention date.
- For an initial product evaluation, if the test report does not indicate an expiration date or if it specifies a record retention date, then 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.
- 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 TDI may continue to utilize the test report if no changes have occurred in the product.
- The evaluation report will be subject to re-evaluation 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.
- The evaluation report will indicate the month and year of the re-evaluation date.

#### 5.2 Products Not Certified Through an Inspection Agency)

- 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 TDI have not changed and, the product specified in the test report has not changed.
- TDI reserves the right to request verification from the product manufacturer that the product specified in the test report has not changed.
- If the test report indicates an expiration date and the test report is expired, then the test report must be revised to either (1) remove the expiration date, (2) change the expiration date, or (3) add a record retention date.
- If the test report indicates an expiration date and the test report is within six months of expiring, then TDI reserves the right to request that the test report be revised to either (1) remove the expiration date, (2) change the expiration date, or (3) add a record retention date.
- For an initial product evaluation, if the test report does not indicate an expiration date or if it specifies a record retention date, then 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.
- 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 TDI may continue to utilize the test report if no changes have occurred in the product.
- The evaluation report will be subject to re-evaluation a maximum of four years from the effective date of the evaluation report. The re-evaluation date in the evaluation report could be less than four years from the effective date of the evaluation report if the test report has an expiration date that is less than four years from the effective date of the evaluation report.
- The evaluation report will indicate the month and year of the re-evaluation date.