

## TDI Frequently Asked Questions

1. When testing side hinged exterior doors to ASTM E330 non-impact, how many specimens need to be tested?

**Response:** 1 inswing and 1 outswing should be tested independently. Reference NAFS11 Section 12.3.3(a)

2. When qualifying alternate non-impact lock and deadbolt hardware to ASTM E330, how many additional specimens need to be tested?

**Response:** You must test doors with the hardware that will be installed with the door. A separate test is required for each type/grade of hardware that will be used. If the doors pass the test, then TDI will accept the different hardware types. WMA 100-2018' can be used as an acceptable standard for qualifying alternates.

3. When qualifying alternate impact lock and deadbolt hardware to ASTM E330, how many additional specimens need to be tested?

**Response:** You must test doors with the hardware that will be installed with the door. A separate test is required for each type/grade of hardware that will be used. If the doors pass the test, then TDI will accept the different hardware types. WMA 100-2018' can be used as an acceptable standard for qualifying alternates.

4. When qualifying alternate lock and deadbolt hardware to ASTM E1886/ASTM E1996, how many additional specimens need to be tested?

**Response:** See ASTM E1996 Section A.1.13.3. A1.13.3 *Locking Hardware for Sliding-Projected-Dual Action Windows, Sliding Doors, and Hinged Doors*— Any substitution within the operable window or operable door assembly of locking hardware shall require the testing of one additional specimen identical to the initial three qualified with the only difference being in the locking hardware used. NOTE: One specimen with the alternative hardware must also be tested in accordance with ASTM E 330. Refer to Question 3.

5. When testing impact rated side hinged exterior doors to ASTM E1886/ASTM E1996, how many specimens need to be tested?

**Response:** 3 identical Inswing and 3 identical Outswing. Exception. For single doors only, if the only difference between the inswing and the outswing doors is the swing, then it is acceptable to test three inswing doors, then test one outswing door.

6. Are opaque side hinged exterior doors required to be impact rated?

**Response:**

Note: In areas where windborne debris protection is required by the building specifications adopted by the TDI, there is a choice. Provide an impacted rated exterior opening product (window, door, and skylight) or provide a non-impact rated exterior opening product and also provide an impact protective system (shutter). With this in mind, the following is required by the TDI:

- a. Inland 2 Areas – No requirements for windborne debris protection.
- b. Inland 1 Areas – Windborne debris protection required for glazed exterior openings.
- c. Seaward Areas – Windborne debris protection required for both glazed and opaque exterior openings.

7. Are impact products tested to TAS 201/TAS 203 accepted by the TDI?

**Response:** Impact windows, sliding doors, and skylights that fall within the scope of AAMA/WDMA/CSA 101/I.S.2/A440 must be tested in accordance with ASTM E 1886/ASTM E 1996. Impact exterior side hinged doors that fall within the scope of AAMA/WDMA/CSA 101/I.S.2/A440 shall be tested in accordance with ASTM E 1886/ASTM E 1996; however, they may also be tested in accordance with TAS 201/TAS 203.

8. When should I request a submittal ID number from TDI?

**Response:** Only ask for a submittal ID number when you are ready to enter the information into the CIP. Request a submittal ID number from the TDI in your submittal letter sent via email to the TDI.

9. What is required to be on the temporary product label?

**Response:** Labels for products should match the certification agencies listing which includes:

- i. CCL number
- ii. Name of product
- iii. Standard tested to
  1. If you want to list NAFS 11 and NAFS 08 on label both need to be on CCL list
  2. If you want to just list NAFS 11 on the label then it needs to be on CCL list

- iv. Rating - If the rating is based upon a NAFS test, the primary designator is required, and the secondary designators is optional. If impact, the missile size, wind zone, and cycling pressure is required.
- v. Size Tested or Smaller for NAFS and ASTM E330, Size for I.S.11 standard. NOTE: If size tested in impact test is different from NAFS or ASTM E 330 test, then smallest size tested is listed.
- vi. Configuration of the product, i.e. XX, XO, XXXO, etc.
- vii. Labels put on finished products should be the same label that you supplied TDI with on the CIP (TDI number can be listed as such for submittals – WIN-XXX)

b. Do Not Include on the label:

- i. The word “Sample”
- ii. The word “Example”

10. Should standard AWS and Impact units use the same CCL base number?

**Response:** Yes if possible, it makes it easier to connect the dots for TDI staff when reviewing TDI evaluations.

11. If a manufacturer tests a project-out window to NAFS and ASTM E 1886/ASTM E 1996. Can the product also be certified as a casement assuming that casement is identical in construction to the project out?

**Response:** Per the NAFS and ASTM E1996 standards, this is not allowed due to different auxiliary testing for each product type.

12. When testing impact rated windows and skylights to ASTM E1886/ASTM E1996, how many specimens need to be tested?

**Response:** 3 identical specimens should be tested.

13. How should embedment into substrate be handled on installation instructions?

**Response:** It is important to be specific as to what the substrate is. For example, is the substrate sheathing (plywood, OSB, foam board) or is it wall framing (SYP dimension lumber, 16-gauge metal studs, concrete block). The specifics for the type of substrate required for installation is based on the way the product was tested as specified in the test report.-Most window and door products are installed into wall framing. -In the installation instructions, it would be appropriate to state wall framing and note the type (SPF dimension lumber, SYP dimension lumber, concrete block, etc.) and state the minimum penetration depth of the fasteners into the wall framing. The

test lab often does not represent real world installation conditions. In many test reports, the nailing fin is secured directly to the wood test buck with 3/4" long screws. For frame installations, the frame of the product bears directly against the test buck. The real structure may have a non-structural material installed over the wall studs (like 1/2" thick foam board). If the TDI specified 3/4" screws in the evaluation report as tested, then the fastener would not be long enough to penetrate through the foam board. In replacement construction, there may be a gap in the wall between the product frame and the wall framing. We specify a minimum embedment depth into the wall framing. If the tested fastener length is less than 1-1/2", then a length of fastener is not specified (we do state the minimum required fastener size, such as No. 8 screw, No. 10 screw, 6d smooth shank nail,, etc. per the test report). That way, a fastener long enough to penetrate through the nailing fin or frame, through any non-structural material or gap in the wall, and into the wall framing the required depth to achieve the appropriate withdrawal resistance and lateral resistance is provided. A fastener must penetrate a minimum depth into the substrate in order to develop sufficient lateral strength, which is a function of the fastener size used. For consistency, the TDI has specified a minimum 1-1/2" penetration into the wood wall framing to make sure the fastener achieves the minimum necessary lateral strength. For concrete or concrete block framing, a minimum embedment depth of 1-1/4" is sufficient.

14. When testing impact rated windows, doors, and skylights, how should anchorage method be handled?

**Response:** In accordance with ASTM E 1996, three identical specimens (i.e., three specimens with the same type of anchorage method) must be tested. Alternative anchorage methods are acceptable with the testing of one additional specimen for each alternative anchorage method. Note: all anchorage methods must also be tested in accordance with ASTM E 330.