



WDMA / AAMA / CSA JOINT TECHNICAL INTERPRETATION

REQUEST

INTERPRETATION  
NUMBER

**07-01**

**DATE OF INQUIRY:** February 5, 2007

**Approved 12/08**

**PERTINENT JOINT WDMA/AAMA/CSA SPECIFICATION(S):**

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

**SECTION(S) IN QUESTION:**

AAMA/WDMA/CSA 101/I.S.2/A440-05 Section 5.3.4.3

*After each specified loading, there shall be no permanent damage to fasteners, hardware parts, support arms, or actuating mechanisms, disengagement, or any other damage which causes the test specimen to be inoperable.*

**INTERPRETATION REQUESTED:**

I would like to request an official AAMA TI on the sentences (*identified above*) from 101/I.S.2/A440.

1. With regard to fasteners, hardware parts, supports arms, or actuating mechanisms please clarify what constitutes permanent damage and that operability of these specific components is not the pass/fail criteria.
2. Please include commentary on a localized indentation in a hardware piece vs. yielding of the part.
3. Please include commentary on localized buckling of a frame member at the point of load transfer from the hardware part.

For the purpose of the interpretation, it would be helpful if the sentence in Section 5.3.4.3 was separated into two sentences as follows:

*After each specified loading, there shall be no permanent damage to fasteners, hardware parts, support arms, or actuating mechanisms and there shall be no disengagement.*

*In addition, there shall be no other damage which causes the test specimen to be inoperable.*

1. Will the JDMG accept the following proposed changes to the wording in the standard and support this re-wording for inclusion in the next edition of AAMA/WDMA/CSA 101/I.S.2/A440?

**5.3.4.3 Uniform load structural test at 150% of design pressure (200% for TDDs, unit skylights and roof windows)**

Tests shall be conducted in accordance with ASTM E 330, Procedure A. Load duration shall be 60 seconds for TDDs, unit skylights, and roof windows and 10 seconds for all other products.

A minimum uniform load structural test pressure as specified in Tables 1 and 3 shall be applied to the test specimen in the same load sequence as that specified in Clause 5.4.3.2.

The test specimen shall be evaluated for permanent damage after each load.

After each specified loading, there shall be no visually observable permanent damage to fasteners, hardware parts, support arms, or actuating mechanisms and there shall be no disengagement. In addition, there shall be no other damage which causes the test specimen to be inoperable. For purposes of this standard, **inoperable** is defined as no longer functioning as originally designed.

There shall be no permanent deformation of any mainframe, sash, sash member, leaf, or threshold/sill in excess of 0.4% of its span for R and LC class products, 0.3% of its span for CW class products, or 0.2% of its span for AW class products. Permanent deformation shall be measured to the nearest 0.25 mm (0.01 in). In dual windows or dual doors, permanent deformation requirements apply to the primary window or door members only.

If there is any glazing breakage during a specified loading, and the manufacturer does not modify the test specimen (i.e., only the glazing or identical sash, panel, or leaf is replaced), a maximum of two retests shall be permitted.

For TDDs, unit skylights, and roof windows with plastic dome glazing, the test specimen shall be considered to have failed if the dome continues to deflect without an increase in the load, breaks, or becomes dislodged from its frame.

Except for AW test specimens, if there is any hardware breakage during a specified loading and the manufacturer does not modify the test specimen (i.e., only the hardware is replaced), a maximum of two retests shall be permitted.

2. Will the JDMG support the addition of this note to the end of Clause 5.1.1 in the next edition of AAMA/WDMA/CSA 101/1.S.2/A440?

*(Note: In the event of a challenge to the ruling rendered by the independent testing laboratory, further clarification shall be sought from the appropriate technical authority of either AAMA, WDMA, or CSA.)*

**SUGGESTED INTERPRETATION:**

1. Yes
2. Yes.

**REVIEWED/APPROVED BY:**

| COMMITTEE | COMMENTS / ACTION | STATUS   | DATE     |
|-----------|-------------------|----------|----------|
| JDMG      |                   |          |          |
| AAMA      |                   | Approved | 2/14/07  |
| CSA       |                   | Approved | 12/18/08 |
| WDMA      |                   | Approved | 7/11/07  |