

# 08 50 00 Windows

Revision 01/04/2019

## **Purpose:**

The Architect and/or Engineer shall incorporate the Rice specific requirements indicated in this standard's section into their design. The Architect and/or Engineer shall further produce project specifications in line with industry standards that are updated to reflect these Rice specific requirements.

## **1. General Requirements:**

- a. Hurricane-resistant or safety film shall be on a case by case basis. Architect to coordinate with Rice Project Manager prior to 100% Schematic Design.
- a. All window frames must be thermally-broken aluminum.
- b. All glazing must consist of dual-pane, low-E, insulating glass units (IGU).
- c. Entrances:
  - i. Door reveals shall be no larger than 3/16" all way around.
- d. Storefronts:
  - i. Hurricane resistant or safety film shall be on a case by case basis. Architect shall coordinate with Rice Project Manager prior to 100% schematic design.
- e. Curtain walls:
  - i. All curtain walls shall be pressure-tested. (No Exceptions).

## **2. Performance Requirements:**

- a. Air Infiltration Resistance: At a minimum, the air leakage rate shall not exceed 0.09 cfm per square foot (psf) of surface when tested in accordance with ASTM E 283.
- b. Water Penetration Resistance: The window assemblies, including all perimeter condition, sealant joints, and flashing, must sustain – without leakage – a 15 minute static and cyclic (3 cycles of 5 minutes per each).
- c. Condensation Resistance: The Condensation Resistance Factor (CRF) shall not be less than 74 when tested in accordance with AAMA 1503.1 .
- d. Unless the Project Specifications stipulate more stringent performance requirements, all window assemblies must be in the 'AW' Performance Class and the '60' Performance Grade per North American Fenestration Standard (NAFS) window classification system.

## **3. Field Testing and Quality Assurance Requirements:**

- a. Mock-up Assembly: Contractor must construct a mock-up of each window type prior to commencement of production work.
- b. Contractor must perform air infiltration tests (per ASTM 783) and water penetration tests (per ASTM E 1105) for each window type.
- c. The Architect will select all test locations. Testing shall be performed by an AAMA

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accredited, or equally qualified, testing agency. The cost of all successful tests shall be paid by the Owner. However, all unsuccessful tests (both original and "retests") shall be paid by the Contractor.

- i. For each failure condition discovered, make remedial and corrective action approved by the Owner and Architect.
  - ii. Remedial measures shall maintain standards of quality and durability, and are subject to approval by the Architect.
  
- d. Water Nozzle Spray Tests: Contractor must periodically perform AAMA 501.2 tests at intervals determined by Architect.
  - i. The test locations will be designated by the Architect. However, the AAMA 501.2 tests will be paid for by the Contractor.
  - ii. The minimum size of each test area (specimen) shall be 200 sf.
  - iii. Provide a minimum of 2 week's notice to Architect and Owner prior to each test to allow them to attend and monitor the testing.
  
- e. During the Production Work, test glazing pockets (and other horizontal cavities that may collect water) by temporarily plugging weep holes and filling with water in accordance with AAMA 502. After a minimum of 15 minutes, inspect for water leakage or drop in water level.