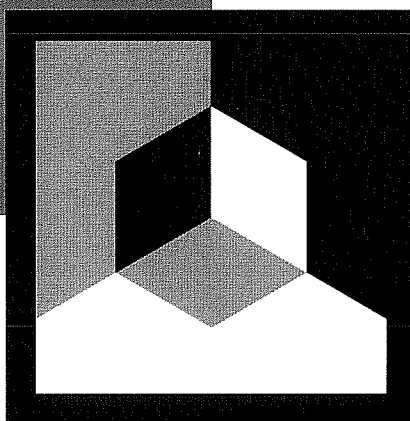


A M E R I C A N A R C H I T E C T U R A L

AAMA 501.2-03

**Quality Assurance and
Diagnostic Water Leakage
Field Check of Installed
Storefronts, Curtain Walls,
and Sloped Glazing Systems**



M A N U F A C T U R E R S A S S O C I A T I O N



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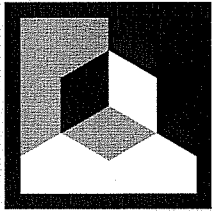


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1.0 SCOPE AND PURPOSE

The purpose of this document is to provide a quality assurance and diagnostic field water check method for installed storefronts, curtain walls, and sloped glazing systems. The procedure outlined in this document is not intended to test the rated or specified water performance representative of a wind driven rain event. AAMA 503 is the proper test method for field testing of storefronts, curtain walls, and slope glazing for air leakage resistance and water penetration resistance performance.

NOTE: *This field check method is not appropriate for testing of operable components such as operable windows and doors. AAMA 502-02 is the proper test method for field air leakage resistance and water penetration resistance testing of operable windows and doors.*

This field check procedure is intended to evaluate those joints, gaskets and sealant details in the glazing which are designed to remain permanently closed and water tight.

The primary units of measure in this document are metric. The values stated in SI units are to be regarded as the standard. The values given in parentheses are for reference only.

2.0 PREPARATION OF TEST AREA

All framing and/or units shall be installed on the lower two typical floors of the building for curtain wall testing and on the lowest typical floor for storefront or sloped glazing system testing. The area shall be fully glazed to provide a completed installation. All of this work shall be done in strict accord with approved shop drawings and job specifications. The architect and/or owner's representative shall designate an area of the completed portion to be tested. The test area shall be a representative sample of typical construction and shall have no outstanding punch list items or other visible defects. If no test area and/or location has been identified, the persons doing the test shall select an area. This area shall be selected to provide representative performance data, usually a minimum of 9.3 m² (100 ft²). The area to be tested shall include, perimeter caulking, typical splices, frame intersections, and, if applicable, at least 2 entire vision lites and 2 entire spandrel lites containing an intermediate vertical member and an intermediate horizontal member. All operable components within the test area shall be isolated and exempt from the test procedure. See Figures 1, 2 and 3 for typical test assemblies.

NOTE: *Testing shall be performed as soon as possible after the fenestration product is installed and prior to the installation of drywall or other interior finish wall materials. If interior wall materials have been installed*

they shall be removed at the test area to allow visual access to check for water penetration, or other means of visual access shall be provided. If removal of interior finish work is required the sponsor of the test is responsible for the cost of removal and repairs.

3.0 APPARATUS

The test shall be conducted using a Type B-25, #6.030 brass nozzle with a 1/2" FPT as manufactured by Monarch Manufacturing Works, Inc./Newton Tool & Mfg. Company, 500 Pedricktown Road, Swedesboro, NJ 08085 (Phone: 856-241-1500 or 800-394-7377). The nozzle shall be connected to a hose [19 mm (3/4 in) diameter is suggested] and shall be provided with a control valve and a pressure gauge between the valve and the nozzle. The water pressure to the nozzle shall be adjusted to produce 205 to 240 kPa (30 to 35 psi) at the nozzle inlet. The pressure gauge shall be calibrated at a maximum of 6 month intervals. Record of calibration certificates shall be made available upon request.

NOTE: *This test method may be conducted at pressures lower than 205 kPa (30 psi) providing that the reason (i.e. not practical at a multistory building location) for not achieving this pressure is 1) acceptable to the specifier, 2) the pressure is not lower than 170 kPa (25 psi) and 3) the reason and the actual pressure are so noted in the test report as an exception to the method.*

4.0 PROCEDURE

4.1 The designated test area shall be divided into and evaluated in 1.5 m (5 ft) sections of the framing and joint. The nozzle shall be held at a distance of 305 mm (1 ft) ±25 mm (1 in) from the location under test. Each 1.5 m (5 ft) section of test area shall be evaluated for a period of 5 minutes by slowly moving the nozzle back and forth over the test section (see Figure 4) while maintaining the nozzle perpendicular to the plane of the wall.

NOTE: *It is recommended that a gauge be attached to the end of the nozzle to ensure that the specified distance from the joint under test is maintained.*

4.2 Working from the exterior, the wall test section shall be selectively wetted progressing from the lowest horizontal framing member, then the adjacent framing intersections, then the adjacent vertical framing members, etc. During the test, an observer on the indoor side of the wall, using a flashlight if necessary, shall check for any water leakage and shall note where it occurs.

NOTE: *For this water leakage field check, water leakage is defined as any uncontrolled water that appears on any normally exposed interior surfaces, that is not contained or drained back to the exterior, or that can cause damage*