

WDMA TM 10-23 Screw Holding Capacity

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Test Method for Determining the Screw Holding Capacity of Wood Doors



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TEST METHOD

FOR DETERMINING THE SCREWHOLDING

CAPACITY OF WOOD DOORS

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1. SCOPE

This test method determines the ability of a wood door (vertical edge, horizontal edge and face) to resist the withdrawal of a screw perpendicular to the surface.

2. APPLICABLE DOCUMENTS

- 2.1. ASTM D1761-20, Standard Test Methods for Mechanical Fasteners in Wood
- 2.2. ASME B18.6.4-1998(R2005), Thread Forming and Thread Cutting Tapping Screws and Metallic Drive Screws, Inch Series.

3. SIGNIFICANCE AND USE

This test method will provide useful data for designers, specifiers, and manufacturers in making judgments on the ability of the door assembly to maintain serviceability under operating conditions.

4. APPARATUS

Any testing machine (Instron or equivalent) capable of applying a load at a uniform rate motion at a rate of 2.5mm [0.10 inches] per minute. The equipment must be capable of recording the load required to withdraw the screw. The assembly shall be similar to Figure 2.

5. TEST SPECIMEN

- 5.1. A complete test series shall consist of ten (10) specimens, selected at random, representative of actual pre-fit door construction. Specimens are referenced in Figure 1 for Sections 5.2, 5.3 and 5.4, and shall not be beveled.