



Standard Methods of Testing VENEER, PLYWOOD, AND OTHER GLUED VENEER CONSTRUCTIONS¹

This Standard is issued under the fixed designation D 805; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

INTRODUCTION

The expanding use of plywood, wood, and wood-base laminated materials has stimulated an interest in the mechanical properties of these materials, and in methods for evaluating their mechanical properties. In the preparation of these methods of test, special consideration has been given to procedures already in satisfactory use in the determination of the mechanical and physical properties. Consideration has been given also to the correlation of the methods with related procedures already in use or under consideration for other materials.

The mechanical tests described in these methods may be made to obtain strength data for design purposes, to determine the effect on strength of various treatments or of various factors in processing, to ascertain properties in relation to the various grain or fiber directions of the material, to compare the properties of different base materials or different species, and for other similar purposes.

1. Scope

1.1 These methods cover the determination of the following properties of veneer, plywood, and other glued veneer constructions:

	Section
Compression	5 to 11
Tension	12 to 16
Toughness	17 to 22
Swelling and Recovery of Compressed Wood Products Due to Moisture Absorption	23 to 27
Moisture Absorption of Compressed Wood Products	28 to 32
Moisture Content and Specific Gravity	33 and 34

NOTE 1—The values stated in U.S. customary units are to be regarded as the standard. The metric equivalents of U.S. customary units may be approximate.

NOTE 2—Additional methods for determining plywood properties are covered in the following Method D 2718, and Methods D 2719.

2. Applicable Documents

2.1 ASTM Standards:

- D 143 Testing Small Clear Specimens of Timber²
- D 2718 Testing Plywood in Rolling Shear (Shear in Plane of Plies)²

D 2719 Testing Plywood in Shear Through-the-Thickness²

3. Test Specimen

3.1 *Selection of Test Specimens*—The number of test specimens to be chosen for test and the method of their selection depend on the purpose of the particular tests under consideration, so that no general rule can be given to cover all instances. It is recommended that whenever possible, a sufficient number of tests be made to permit statistical treatment of the test data. In the evaluation of a material, specimens for test should be obtained from a representative number of sheets or panels. Specimens shall not be taken closer to the edge of the sheet or panel than twice the thickness of the sheet or panel.

3.2 *Control of Moisture Content*—The physical and mechanical properties of veneer,

¹These methods are under the jurisdiction of ASTM Committee D-7 on Wood.

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²Annual Book of ASTM Standards, Part 22.