





# EXAMPLES OF MATERIAL PROPERTY TESTING

### **ADHESIVES**

**ASTM D905** Strength Properties of Adhesive Bonds in Shear by

Compression Loading

ASTM D1101 Integrity of Adhesive Joints in Laminated Wood Products

for Exterior Use

ASTM D2339 Strength Properties of Adhesives in Two-Ply Wood

Construction in Shear

**ASTM D2559** Standard Specification for Adhesives for Structural

Laminated Wood Products

**ASTM D3165** Lap Shear Strength Properties of Adhesives

ASTM D5868 Lap Shear Adhesion for Fiber Reinforced (FRP) Plastic

Bonding

## **COMPOSITE MATERIALS**

**ASTM C393** Flexural Properties of Sandwich Constructions

ASTM D2344 Short-beam Strength of Polymer Matrix Composite

Materials and Their Laminates

**ASTM D2584** Ignition Loss of Cured Reinforced Resins

**ASTM D3039** Tensile Properties of Polymer Matrix Composite Materials

**ASTM D3410** Compressive Properties of Composite Materials by Shear

Loading

**ASTM D3479** Tension-Tension Fatigue of Polymer Matrix Composite

Materials

ASTM D3518 In-Plane Shear of Composite Materials by Tensile Test of a

± 450 Laminate

ASTM D4255 Standard Guide for Testing In-plane Shear Properties of

Composite Laminates

**ASTM D5379** Shear Properties of Composite Materials by the V-Notched

Beam Method

**ASTM D5528** Mode I Interlaminar Fracture Toughness of Unidirectional

Composites

**ASTM D5766** Open Hole Tensile Strength of Polymer Matrix Composite

Laminates

ASTM D6115 Mode I Fatigue Delamination Growth Onset of

**Unidirectional Composites** 

**ASTM D6641** Compressive Properties of Composite Laminates

**ASTM F1679** Using a Variable Incidence Tribometer (VIT)

# **FASTENERS**

ASTM D1761 Standard Test Methods for Mechanical Fasteners in Wood

#### PLASTIC MATERIALS

ASTM D256 Determining the Izod Pendulum Impact Resistance of Plastics
ASTM D635 Rate of Burning of Plastics in a Horizontal Position

**ASTM D638** Tensile Properties of Plastics

ASTM D695 Compressive Properties of Rigid Plastics
ASTM D696 Coefficient of Linear Thermal Expansion

**ASTM D790** Flexural Properties of Plastics

**ASTM D792** Density and Specific Gravity of Plastics by Displacement

**ASTM D953** Bearing Strength of Plastics

ASTM D2765 Determination of Gel Content and Swell Ratio of

Crosslinked Ethylene Plastics

ASTM D3846 In-Plane Shear Strength of Reinforced Plastics

**ASTM D4065** Dynamic Mechanical Properties

ASTM D4812 Unnotched Cantilever Beam Impact Strength of Plastics
ASTM D6109 Flexural Properties of Unreinforced and Reinforced Plastic

Lumber

**ASTM D6110** Determining the Charpy Impact Resistance of Notched

Specimens of Plastics

## **STRUCTURAL**

**ASTM C273** Shear Properties of Sandwich Core Materials

**ASTM D7032** Performance Ratings for Wood-Plastic Composite Deck

Boards and Guardrail Systems (Guards or Handrails)

**ASTM E72** (Sec. 11 only) Conducting Strength Tests of Panels for

Building Construction

**ASTM E564** Static Load Test for Shear Resistance of Framed Walls for

Buildings

**ASTM E2126** Cyclic (Reversed) Load Test for Shear Resistance of Vertical

Elements of the Lateral Force Resisting Systems for Buildings

## WOOD PRODUCTS

ASTM D198 Static Tests of Lumber in Structural Sizes
ASTM D143 Testing Small Clear Specimens of Timber

**ASTM D245** Structural Grades and Related Allowable Properties for

Visually Graded Lumber

**ASTM D1037** Evaluating Properties of Wood-Base Fiber and Particle

Panel Materials

**ASTM D2395** Specific Gravity of Wood and Wood-Based Materials

**ASTM D2555** Establishing Clear Wood Strength Values

ASTM D3737 Establishing Allowable Properties for Structural Glued

Laminated Timber (Glulam)

ASTM D4442 Direct Moisture Content Measurement of Wood and

Wood-Base Material

**ASTM D4761** Mechanical Properties of Lumber and Wood-Base

Structural Material

ASTM D4933 Moisture Conditioning of Wood and Wood-Base Materials

**ASTM D5456** Evaluation of Structural Composite Lumber Products

ASTM D6815 Duration of Load and Creep Effects of Wood and Wood-

Based Products

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Panorama of Structural Testing Laboratory