

## ASTM D6484 Testing Fixture

### Open-Hole Compressive Strength of Polymer Matrix Composite Laminates



#### ASTM D6484 Testing Fixture

This test method is designed to produce notched compressive strength data for structural design allowables, material specifications, research and development, and quality assurance.

Factors that influence the notched compressive strength and shall therefore be reported include the following: material, methods of material fabrication, accuracy of lay-up, laminate stacking sequence and overall thickness, specimen geometry, (including hole diameter, diameter-to-thickness ratio, and width-to-diameter ratio), specimen preparation (especially of the hole), specimen conditioning, environment of testing, specimen alignment and gripping, loading procedure, speed of testing, time at temperature, void content, and volume percent reinforcement. Properties that may be derived from this test method include open-hole (notched) compressive strength (OHC)



#### ASTM D6484 TESTING FIXTURE - drawing

<b>Test Standard</b>	ASTM D 6484 - D 6484 M / ISO 12817
<b>Maximum Load</b>	225 kN
<b>Temperature Range</b>	da -80 °C a 149 °C
<b>Specimen Thickness</b>	depending by composite
<b>Specimen Width</b>	36 mm
<b>Specimen Length</b>	300 mm
<b>Mass</b>	6.80 kg



#### ASTM D6484 Testing Fixture - Assembly



#### ASTM D6484 Testing Fixture - Application

#### Additional Information:

ASTM D6484 / D6484M-14, Standard Test Method for Open-Hole Compressive Strength of Polymer Matrix Composite Laminates, ASTM International, West Conshohocken, PA, 2014.

#### Referenced Documents:

ASTM Standards:



## ASTM D6484 Testing Fixture

## Open-Hole Compressive Strength of Polymer Matrix Composite Laminates

- D792 Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement
- D883 Terminology Relating to Plastics
- D2584 Test Method for Ignition Loss of Cured Reinforced Resins
- D2734 Test Methods for Void Content of Reinforced Plastics
- D3039/D3039M Test Method for Tensile Properties of Polymer Matrix Composite Materials
- D3171 Test Methods for Constituent Content of Composite Materials
- D3878 Terminology for Composite Materials
- D5229/D5229M Test Method for Moisture Absorption Properties and Equilibrium Conditioning of Polymer Matrix Composite Materials
- D5687/D5687M Guide for Preparation of Flat Composite Panels with Processing Guidelines for Specimen Preparation
- E4 Practices for Force Verification of Testing Machines
- E6 Terminology Relating to Methods of Mechanical Testing
- E83 Practice for Verification and Classification of Extensometer Systems
- E122 Practice for Calculating Sample Size to Estimate, With Specified Precision, the Average for a Characteristic of a Lot or Process
- E177 Practice for Use of the Terms Precision and Bias in ASTM Test Methods
- E456 Terminology Relating to Quality and Statistics
- E691 Practice for Conducting an Interlaboratory Study to Determine the Precision of a Test Method
- E1309 Guide for Identification of Fiber-Reinforced Polymer-Matrix Composite Materials in Databases
- E1434 Guide for Recording Mechanical Test Data of Fiber-Reinforced Composite Materials in Databases
- E1471 Guide for Identification of Fibers, Fillers, and Core Materials in Computerized Material Property Databases