

Three/Four-Point Flexure Fixture for Composites

Built to ASTM D7264 — Standard Test Method for Flexural Properties of Polymer Matrix Composite Materials



OVERVIEW

Adjustable flexure fixture for three- and four-point bending of polymer matrix composites per ASTM D7264. Cylindrical supports and loading noses are set to the span-to-thickness ratio required by the standard, and the fixture converts between procedures for flexural strength, strain and modulus measurement.

KEY FEATURES

- Converts between Procedure A (3-point) and Procedure B (4-point)
- Adjustable spans set to required span-to-thickness ratio
- Hardened, ground cylindrical supports and loading noses
- Scale markings for quick, symmetric span setup
- Provision for deflectometer under specimen

TECHNICAL SPECIFICATIONS

Test method	Three- or four-point flexure
Test type / loading	Static flexure, constant crosshead rate
Specimens	Rectangular composite bars per ASTM D7264
Load capacity	10 kN standard; higher capacities on request
Fixture material	Hardened tool steel, corrosion-resistant finish
Loading members	Hardened, ground cylindrical supports and noses
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Composite laminate flexural properties
- Material screening and QC
- Aerospace and automotive composites
- Resin and fiber development

ABOUT THE STANDARD

ASTM D7264 determines the flexural stiffness and strength of polymer matrix composites. Procedure A uses three-point loading and Procedure B uses four-point loading, with a standard span-to-thickness ratio of 32:1. A rectangular bar is supported and loaded at mid-span or quarter points until failure or a specified deflection.

Ordering & customization: Specify specimen thickness, required spans, procedure and test machine connection.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures.
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