PRODUCT DATA SHEET

ASTM C1341 Bend Fixture

Flexural Test Fixture for CFCC Composites

Built to ASTM C1341 — Standard Test Method for Flexural Properties of Continuous Fiber-Reinforced Advanced Ceramic Composites



OVERVIEW

Three- and four-point flexure fixture for continuous fiber-reinforced ceramic composites (CFCCs) per ASTM C1341. Rolling, articulating supports and adjustable spans let the composite beam be loaded in flexure while load and deflection are recorded to obtain strength, modulus and stress-strain behavior.

KEY FEATURES

- Adjustable spans for various specimen thicknesses and span ratios
- Rolling support and loading cylinders reduce friction
- Articulation accommodates composite surface variation
- Provision for deflection measurement at mid-span
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Three- and four-point flexure of CFCCs
Test type / loading	Flexure, compression loading
Specimens	Rectangular composite beams per ASTM C1341
Load capacity	10 kN standard; higher capacities on request
Fixture material	Hardened tool steel, corrosion-resistant finish
Loading members	Hardened, ground rolling cylinders
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Ceramic matrix composites (CMCs)
- Aerospace thermal protection
- Turbine and hot-section components
- Composite process development

ABOUT THE STANDARD

ASTM C1341 determines the flexural properties of continuous fiber-reinforced advanced ceramic composites, including flexural strength, proportional limit stress and elastic modulus. Rectangular beams are loaded in four-point or three-point flexure, and the load-deflection curve characterizes the non-linear, damage-tolerant response that distinguishes CFCCs from monolithic ceramics.

Ordering & customization: Specify specimen dimensions, span configuration, three- or four-point loading and test machine connection when ordering.

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. Part ref. UGC-C1341-BF