

Rod Flexure Fixture for Advanced Ceramics

Built to ASTM C1684 — Standard Test Method for Flexural Strength of Advanced Ceramics at Ambient Temperature—Cylindrical Rod Strength



OVERVIEW

Four-point flexure fixture for cylindrical ceramic rods per ASTM C1684. Grooved, articulating support and loading members cradle the round specimen and let it seat without twisting, so failure occurs under the intended flexural stress for a reliable rod strength result.

KEY FEATURES

- Grooved support and loading members locate round specimens
- Articulating design prevents twisting of rods during loading
- Spans configured to the specimen size used
- Hardened bearing surfaces for long, repeatable service
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Four- or three-point flexure of cylindrical rods
Test type / loading	Flexure, compression loading
Specimens	Cylindrical rods per ASTM C1684 configurations
Load capacity	5 kN standard; higher capacities on request
Fixture material	Hardened tool steel, corrosion-resistant finish
Loading members	Grooved, articulating hardened members
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Ceramic pins, rods and rollers
- Bearing and wear components
- Dental and bio-ceramic rods
- Materials qualification and R&D

ABOUT THE STANDARD

ASTM C1684 determines the flexural strength of advanced ceramics in the form of cylindrical rods at ambient temperature. Rods are tested in four-point (or three-point) flexure with fixtures adapted to round specimens. The method is suited to as-fabricated rods, pins and rods machined from components.

Ordering & customization: Specify rod diameter and length, span configuration 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-C1684-BF