PRODUCT DATA SHEET

ISO 14704 Bend Fixture

Articulating Bend Fixture for Monolithic Ceramics

Built to ISO 14704 — Fine ceramics (advanced ceramics, advanced technical ceramics) — Test method for flexural strength of monolithic ceramics at room temperature



OVERVIEW

Articulating three-point bend fixture for flexural strength testing of monolithic ceramics at room temperature. Spring-retained rollers are free to roll and pivot, so the brittle specimen is loaded without frictional or twisting constraint, while support blocks slide along a scaled beam to set the span.

KEY FEATURES

- Rollers free to roll, retained by springs, to eliminate friction effects
- Articulating supports compensate for specimen twist and non-parallel faces
- Supports slide on a scaled beam for accurate span setting
- Four-point upper loading member available for ISO 14704 configurations
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Flexural strength per ISO 14704
Test type / loading	Three-point bending; four-point option
Specimens	Rectangular ceramic bars per ISO 14704
Load capacity	5 kN standard; higher capacities on request
Fixture material	Stainless steel, hardened rollers
Loading members	Spring-retained, free-rolling articulating rollers
Span adjustment	Sliding supports on scaled beam
Machine connection	Clevis pin or threaded adapter, to suit customer frame

APPLICATIONS

- Alumina, zirconia and silicon nitride ceramics
- Technical and electronic ceramics
- Dental and bioceramics
- Weibull strength qualification

ABOUT THE STANDARD

ISO 14704 specifies a method for determining the flexural strength of monolithic fine ceramics at room temperature using three-point or four-point bending of rectangular bars. Fixture articulation and rolling rollers are required to minimise friction and misalignment errors. The result is the flexural strength in MPa, typically evaluated with Weibull statistics.

Ordering & customization: Specify three- or four-point configuration, spans, specimen cross-section, roller diameter, capacity and 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-ISO14704-BF