

Short-Beam Shear (ILSS) Bend Fixture for Composites

Built to ISO 14130 — Fibre-reinforced plastic composites — Determination of apparent interlaminar shear strength by short-beam method



OVERVIEW

Three-point bend fixture for short-beam interlaminar shear testing of fibre-reinforced composites. Support blocks slide in a scaled T-slot beam to set the short span, and a radiused loading nose on the upper beam loads the specimen centrally so failure occurs by interlaminar shear.

KEY FEATURES

- Scaled T-slot beams for quick, accurate setting of short spans
- Radiused loading nose and supports per ISO 14130 geometry
- Interchangeable inserts also suit flexure and plate-twist tests
- Hardened, ground contact surfaces for long service life
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Short-beam shear (ILSS) per ISO 14130
Test type / loading	Three-point bending, short span
Specimens	Short flat composite bars per ISO 14130
Load capacity	10 kN standard; higher capacities on request
Fixture material	Stainless steel beams, hardened inserts
Loading members	Radiused loading nose and supports, interchangeable
Span adjustment	Sliding supports in scaled T-slot beam
Machine connection	Clevis pin or threaded adapter, to suit customer frame

APPLICATIONS

- Carbon and glass fibre laminates
- Prepreg and resin system screening
- Aerospace and wind-energy composites
- Production quality control

ABOUT THE STANDARD

ISO 14130 determines the apparent interlaminar shear strength of fibre-reinforced plastic composites using a short-beam three-point bending test. A short, thick specimen is loaded at mid-span on a small span-to-thickness ratio so that shear failure between plies dominates. The result is the apparent interlaminar shear strength in MPa.

Ordering & customization: Specify specimen thickness and span, loading nose and support radii, required 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-ISO14130-BF