Core Shear Fixture for Sandwich Cores, C273 Fig. 3

Built to ASTM C273 Fig. 3 — Standard Test Method for Shear Properties of Sandwich Core Materials

OVERVIEW

Core shear fixture for sandwich core materials per ASTM C273, built to the Fig. 3 arrangement. The core specimen is bonded between two rigid steel loading plates, and the plates are displaced parallel to each other so the core is loaded in shear to obtain shear strength and modulus.

KEY FEATURES

- Rigid loading plates keep the core in near-pure shear
- Load-transfer ends aligned with the specimen diagonal
- Ground plate surfaces for consistent specimen bonding
- Provision for displacement measurement between plates
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Core shear per ASTM C273
Test type / loading	Shear via bonded plates, per Fig. 3 arrangement
Specimens	Core blocks bonded to loading plates, per ASTM C273
Load capacity	50 kN standard; higher capacities on request
Fixture material	Steel loading plates, heat-treated alloy steel ends
Bonding surfaces	Ground steel plates for adhesive bonding
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Honeycomb cores (aluminum, aramid)
- Structural foam and balsa cores
- Aerospace and marine sandwich panels
- Core material qualification

ABOUT THE STANDARD

ASTM C273 determines the shear strength, shear modulus and shear strain of sandwich core materials such as honeycomb, foam and balsa. A core block is bonded to rigid loading plates and loaded in shear parallel to the facing plane; core shear modulus is derived from load and relative plate displacement.

Ordering & customization: Specify core thickness, specimen length and width, required capacity and test machine connection when ordering. Spare plates available.

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-C273Fig.3-SF