In-Plane Shear Compression Fixture for Plastics

Built to ASTM D3846 — Standard Test Method for In-Plane Shear Strength of Reinforced Plastics



OVERVIEW

Compression platens and support jig for the in-plane shear test of reinforced plastics. A double-notched specimen is held in a supporting jig to prevent buckling and loaded in compression between parallel platens, causing shear failure along the plane between the notches for a simple, repeatable shear strength value.

KEY FEATURES

- Hardened, ground parallel platens for uniform end loading
- Support jig restrains the specimen against buckling
- Jig accepts double-notched specimen geometry
- Centering features align the specimen on the load axis
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	In-plane shear strength (notched compression)
Test type / loading	Compression
Specimens	Double-notched specimens per ASTM D3846 geometry
Load capacity	50 kN standard; higher capacities on request
Fixture material	Hardened tool steel
Contact surfaces	Hardened, ground platens; support jig faces
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Glass-reinforced laminates
- Sheet and bulk molding compounds
- Composite material comparison
- Laminate production QC

ABOUT THE STANDARD

ASTM D3846 determines the in-plane shear strength of reinforced plastics using a double-notched specimen loaded in compression. The notches, machined to a defined spacing on opposite faces, force failure along a shear plane between them. A support jig prevents buckling. The method is used for comparison and quality control of laminates.

Ordering & customization: Specify specimen thickness, required capacity 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.
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