

ASTM B406 Compression Platens

Transverse Rupture Test Fixture for Cemented Carbides

Built to ASTM B406 — Standard Test Method for Transverse Rupture Strength of Cemented Carbides



OVERVIEW

Compression-loaded fixture for transverse rupture strength (TRS) testing of cemented carbides per ASTM B406. The carbide specimen rests on two hard supports and is broken by a central load applied through rigid platens, giving a strength value from the breaking force and specimen dimensions.

KEY FEATURES

- Rigid, ground platens for stiff, aligned load application
- Hard support and loading members suited to cemented carbide specimens
- Specimen locators for centered, square loading
- High-stiffness design minimizes fixture deflection
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Transverse rupture strength per ASTM B406
Test type / loading	Three-point bend, compression loading
Specimens	Rectangular carbide bars per ASTM B406 geometry
Load capacity	50 kN standard; higher capacities on request
Fixture material	Hardened tool steel platens
Contact surfaces	Hardened or carbide support and loading members
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Tungsten carbide tooling grades
- Wear parts and inserts
- Sintering and powder process control
- Grade development and QC

ABOUT THE STANDARD

ASTM B406 determines the transverse rupture strength of cemented carbides, a key property for grade comparison and quality control of tungsten carbide tooling and wear parts. Small rectangular specimens are broken in three-point bending using very hard supports, and TRS is calculated from the fracture load, span and cross-section.

Ordering & customization: Specify specimen dimensions, 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.
Part ref. UGC-B406-CP