ISO 13314 Compression Platens

Compression Platens for Porous and Cellular Metals

Built to ISO 13314 — Mechanical testing of metals — Ductility testing — Compression test for porous and cellular metals



OVERVIEW

Hardened compression platen set for testing metal foams and other porous or cellular metals. Large ground platens with concentric centring rings support the specimen, and adjustable side stops on the platen flange help centre it before it is compressed through its plateau and densification regions.

KEY FEATURES

- Large-diameter platens, hardened to about 60 HRC
- Concentric centring rings engraved on both platen faces
- Adjustable side stops with knobs centre the specimen
- Ground, parallel faces for uniform load distribution
- Supplied with adapters to suit your load frame (clevis or threaded)

TECHNICAL SPECIFICATIONS

Test method	Compression test for porous and cellular metals, ISO 13314
Test type / loading	Uniaxial compression between parallel platens
Specimens	Cubic or cylindrical porous metal specimens
Load capacity	100 kN standard; higher capacities on request
Fixture material	Hardened tool steel platens, about 60 HRC
Contact surfaces	Ground flat platen faces with centring rings
Machine connection	Clevis pin or threaded adapter, to suit customer frame
Compatible frames	Electromechanical and servo-hydraulic universal test machines

APPLICATIONS

- Aluminium and metal foams
- Lattice and additively manufactured structures
- Crash-energy absorber development
- Porous implant and filter materials

ABOUT THE STANDARD

ISO 13314 specifies a method for compression testing of porous and cellular metals with porosity of 50 % or more. A specimen is compressed between flat platens at constant strain rate, and properties such as plateau stress, compressive proof strength, energy absorption and the end of the plateau are derived from the stress-strain curve.

Ordering & customization: Specify specimen size, platen diameter, 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-ISO13314-CP