

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for ASTM D1708

Microtensile Dumbbell · Tensile specimen — built to ASTM D1708: Standard Test Method for Tensile Properties of Plastics by Use of Microtensile Specimens


OVERVIEW

Solid cutting die for cutting Microtensile Dumbbell specimens to ASTM D1708. The die is machined from a single piece of steel, hardened and finished with a sharp, precision cutting edge, so it holds its profile when cutting harder plastics from 0 to 5 mm thick.

KEY FEATURES

- Machined from a single piece of steel — no joints or seams in the cutting edge
- Hardened, precision-finished edge for clean, square specimen sides
- Cuts harder plastics, filled compounds and sheet from 0–5 mm thick
- Integral ejector plate releases the specimen after cutting
- Long service life; cutting edge can be re-sharpened

SPECIMEN PROFILE

Overall length (min)	38.1 mm
Width of narrow section	4.8 mm
Width of ends	15.9 mm
Distance between tabs (gauge)	22.25 ± 0.05 mm
Initial grip separation	22.0 ± 0.05 mm
Max thickness	3.2 mm

Nominal values per ASTM D1708; die is cut to the standard's profile.

DIE SPECIFICATIONS

Die construction	One-piece machined steel body
Cutting edge	Hardened, precision-finished
Material thickness	0 – 5 mm
Recommended materials	Rigid & semi-rigid plastics, filled compounds, rubber, sheet & film
Specimen ejection	Integral ejector plate
Press compatibility	Manual, pneumatic & hydraulic sample-cutting presses
Cut profile	Microtensile Dumbbell per ASTM D1708

APPLICATIONS

- Thin film & sheet
- Fluoropolymer resins
- Small molded samples
- R&D material screening

Ordering & customization: Specify the standard and specimen type, die style (ribbon steel or hardened steel), the material and thickness you cut, and your press make/model so we can match the mounting. Custom profiles, multi-cavity dies and nick/notch features are available on request.

ABOUT THE STANDARD

ASTM D1708 determines tensile properties of plastics using a small dumbbell die-cut or molded specimen when only limited material is available. It covers sheet and film up to 3.2 mm thick.

Also available: Ribbon Steel version

Economical steel-rule die for rubber, elastomers and soft plastics up to 3 mm thick — same ASTM D1708 profile.

Specifications are typical and may vary by configuration; confirm at time of quote. Refer to the current edition of the standard for specimen tolerances and test procedures. Part ref. UGC-CDH-D1708