

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for ASTM D4894

Microtensile Dumbbell · Tensile specimen — built to ASTM D4894: Standard Specification for Polytetrafluoroethylene (PTFE) Granular Molding and Ram Extrusion Materials



OVERVIEW

Solid cutting die for cutting Microtensile Dumbbell specimens to ASTM D4894. 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
Specimen thickness	1.5 ± 0.3 mm

Nominal values per ASTM D4894; 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 D4894

APPLICATIONS

- Seals & gaskets
- Bearings & slide pads
- Valve seats
- Chemical-resistant liners

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 D4894 specifies requirements for granular PTFE resins used in compression molding and ram extrusion. Tensile strength and elongation are measured on microtensile dumbbells die-cut from sintered molded sheet.

Also available: Ribbon Steel version

Economical steel-rule die for rubber, elastomers and soft plastics up to 3 mm thick — same ASTM D4894 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-D4894