

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for ASTM D1822 Type L

Tensile-Impact Dumbbell Type L · Tensile impact specimen — built to ASTM D1822: Standard Test Method for Tensile-Impact Energy to Break Plastics and Electrical Insulating Materials



OVERVIEW

Solid cutting die for cutting Tensile-Impact Dumbbell Type L specimens to ASTM D1822. 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	63.5 mm
Width of narrow section	3.18 ± 0.03 mm
Length of narrow section	9.53 ± 0.05 mm
Width of ends	12.7 mm
Radius of fillet	12.7 mm
Thickness	≤4 mm (3.2 mm nominal)

Nominal values per ASTM D1822; 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	Tensile-Impact Dumbbell Type L per ASTM D1822

APPLICATIONS

- Thin molded plastics
- Electrical insulation
- Film & sheet too thin for notched impact
- Automotive plastics

ABOUT THE STANDARD

ASTM D1822 measures the energy required to break plastic specimens in tension under a pendulum-driven high-speed impact. The Type L specimen has a longer narrow section than Type S, allowing elongation to be better distinguished between materials.

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.

Also available: Ribbon Steel version

Economical steel-rule die for rubber, elastomers and soft plastics up to 3 mm thick — same ASTM D1822 Type L 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-D1822-TL