

RIBBON STEEL CUTTING DIE

Ribbon 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



Representative ribbon steel die

OVERVIEW

Steel-rule style cutting die for cutting Tensile-Impact Dumbbell Type L specimens to ASTM D1822. A precision-bent, hardened ribbon-steel rule is set into a laser-cut plywood base with a foam ejection pad, giving clean, repeatable cuts in rubber, elastomers and soft plastics from 0 to 3 mm thick.

KEY FEATURES

- Hardened ribbon-steel rule precision-bent to the ASTM D1822 Type L profile
- Laser-cut multi-ply plywood base holds the rule rigidly in position
- Foam ejection pad pushes the specimen free after every stroke
- Ideal for rubber, elastomers, TPE, foam and soft plastics 0–3 mm thick
- Economical, fast-turnaround option for routine QC and lab testing

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	Ribbon-steel rule (steel-rule die) in plywood base
Cutting edge	Hardened steel rule, precision bent
Material thickness	0 – 3 mm
Recommended materials	Rubber, elastomers, TPE, foams, soft plastics & films
Specimen ejection	Closed-cell foam ejection pad
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: Hardened Steel version

Machined from one piece of hardened steel for harder plastics up to 5 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-CDR-D1822-TL