RIBBON STEEL CUTTING DIE

Ribbon Steel Cutting Die for ASTM D638 Type II

Dumbbell Type II · Tensile specimen — built to ASTM D638: Standard Test Method for Tensile Properties of Plastics

Representative ribbon steel die

OVERVIEW

Steel-rule style cutting die for cutting Dumbbell Type II specimens to ASTM D638. 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 D638 Type II 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 (min)	183 mm
Width of narrow section	6 ± 0.5 mm
Length of narrow section	57 ± 0.5 mm
Width of ends	19 ± 6.4 mm
Gauge length	50 ± 0.25 mm
Radius of fillet	76 ± 1 mm
Thickness	3.2 ± 0.4 mm (≤7 mm)

Nominal values per ASTM D638; 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	Dumbbell Type II per ASTM D638

APPLICATIONS

- Molded plastic parts
- Extruded sheet
- Reinforced composites
- Material qualification & QC

ABOUT THE STANDARD

ASTM D638 covers tensile strength, modulus and elongation of unreinforced and reinforced plastics using dumbbell specimens. The Type II profile is a narrower variant used when Type I will not break in the narrow section.

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 D638 Type II 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-D638-TII