RIBBON STEEL CUTTING DIE

Ribbon Steel Cutting Die for ISO 37 Type 2

Dumbbell Type 2 · Tensile specimen — built to ISO 37: Rubber, vulcanized or thermoplastic — Determination of tensile stress-strain properties

Representative ribbon steel die

OVERVIEW

Steel-rule style cutting die for cutting Dumbbell Type 2 specimens to ISO 37. 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 ISO 37 Type 2 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)	75 mm
Width of ends	12.5 ± 1 mm
Length of narrow section	25 ± 1 mm
Width of narrow section	4.0 ± 0.1 mm
Transition radius (outer)	8.0 ± 0.5 mm
Gauge length	20.0 ± 0.5 mm
Recommended thickness	2.0 ± 0.2 mm

Nominal values per ISO 37; 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 2 per ISO 37

APPLICATIONS

- O-rings & seals
- Automotive hoses & belts
- Tire compounds
- Molded elastomer parts

ABOUT THE STANDARD

ISO 37 specifies how to determine tensile strength, elongation at break and stress at given elongations for vulcanized and thermoplastic rubbers using die-cut dumbbells or rings. Type 2 is a mid-size dumbbell for limited sample material or thinner sheet.

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 ISO 37 Type 2 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-ISO37-T2