RIBBON STEEL CUTTING DIE

Ribbon Steel Cutting Die for ISO 527-3 Type 5

Dumbbell Type 5 · Tensile specimen — built to ISO 527-3: Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets

Representative ribbon steel die

OVERVIEW

Steel-rule style cutting die for cutting Dumbbell Type 5 specimens to ISO 527-3. 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 527-3 Type 5 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)	115 mm
Width of ends	25 ± 1 mm
Length of narrow section	33 ± 2 mm
Width of narrow section	6.0 +0.4/0 mm
Transition radius (small)	14 ± 1 mm
Gauge length	25.0 ± 0.25 mm
Initial grip separation	80 ± 5 mm

Nominal values per ISO 527-3; 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 5 per ISO 527-3

APPLICATIONS

- Packaging films
- Agricultural & construction film
- Laminates & labels
- Thin plastic sheet

ABOUT THE STANDARD

ISO 527-3 sets tensile test conditions for plastic films and sheets less than 1 mm thick. The Type 5 dumbbell suits high-elongation films that would exceed crosshead travel as a strip.

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 527-3 Type 5 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-ISO5273-T5