

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for ISO 527-2 Type 5B

Micro Dumbbell Type 5B · Tensile specimen — built to ISO 527-2: Plastics — Determination of tensile properties — Part 2: Test conditions for moulding and extrusion plastics



OVERVIEW

Solid cutting die for cutting Micro Dumbbell Type 5B specimens to ISO 527-2. 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 (min)	35 mm
Width of ends	6.0 ± 0.5 mm
Length of narrow section	12.0 ± 0.5 mm
Width of narrow section	2.0 ± 0.1 mm
Transition radius	3.0 ± 0.1 mm
Gauge length	10.0 ± 0.2 mm
Thickness	1.0 ± 0.1 mm

Nominal values per ISO 527-2; 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	Micro Dumbbell Type 5B per ISO 527-2

APPLICATIONS

- Injection-moulded parts
- Extruded sheet & profiles
- Resin qualification
- Filled & reinforced compounds

ABOUT THE STANDARD

ISO 527-2 defines tensile test specimens and conditions for moulding and extrusion plastics, building on the general principles of ISO 527-1. Type 5B is a miniature dumbbell for high-elongation plastics when material is very limited.

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 ISO 527-2 Type 5B 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-ISO5272-T5B