

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for DIN 53504 S1A

Dumbbell S1A · Tensile specimen — built to DIN 53504: Testing of rubber - Determination of tensile strength, elongation and stress values



OVERVIEW

Solid cutting die for cutting Dumbbell S1A specimens to DIN 53504. 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)	100 mm
Width of ends	25 ± 1 mm
Width of narrow section	5.0 ± 0.1 mm
Length of narrow section	20 mm (+2/-0)
Gauge length	20 mm
Recommended thickness	2.0 ± 0.2 mm

Nominal values per DIN 53504; 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	Dumbbell S1A per DIN 53504

APPLICATIONS

- Rubber compounds
- Thermoplastic elastomers
- Extensometer-based elongation testing
- Production QC

ABOUT THE STANDARD

S1A is a shorter variant of the S1 dumbbell with a 5 mm narrow section, matching ISO 37 Type 1A. It suits tests where extensometer clearance or limited specimen length favour a more compact shape.

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 DIN 53504 S1A 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-DIN53504-S1A