

**HARDENED STEEL CUTTING DIE**

# Hardened Steel Cutting Die for DIN 53504 S3

Micro dumbbell S3 · Tensile specimen — built to DIN 53504: Testing of rubber - Determination of tensile strength, elongation and stress values



## OVERVIEW

Solid cutting die for cutting Micro dumbbell S3 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)     | 35 mm        |
| Width of ends            | 6.0 ± 0.5 mm |
| Width of narrow section  | 2.0 ± 0.1 mm |
| Length of narrow section | 12 ± 0.5 mm  |
| Gauge length             | 10 mm        |
| Recommended thickness    | 1.0 ± 0.1 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           | Micro dumbbell S3 per DIN 53504                                     |

## APPLICATIONS

- Samples cut from finished parts
- Thin rubber sections
- Medical and small elastomer components
- Failure analysis

## ABOUT THE STANDARD

S3 is a miniature dumbbell for very small samples, equivalent to ISO 37 Type 4. It is used when test material is cut from finished products or thin sections.

**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 S3 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-S3