

**HARDENED STEEL CUTTING DIE**

## Hardened Steel Cutting Die for EN 60811-501 Fig. 1

Large cable dumbbell · Tensile specimen — built to EN 60811-501: Electric and optical fibre cables - Test methods for non-metallic materials - Mechanical tests: tensile strength and elongation of insulating and sheathing compounds



### OVERVIEW

Solid cutting die for cutting Large cable dumbbell specimens to EN 60811-501. 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)     | 75 mm        |
| Width of ends            | 12.5 ± 1 mm  |
| Width of narrow section  | 4.0 ± 0.1 mm |
| Length of narrow section | 25 ± 1 mm    |
| Gauge length             | 20 mm        |
| Max. thickness           | 2.0 mm       |

Nominal values per EN 60811-501; 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           | Large cable dumbbell per EN 60811-501                               |

### APPLICATIONS

- PVC and PE cable sheaths
- XLPE / EPR insulation
- Ageing (before/after) tensile comparison
- Cable QC and type testing

### ABOUT THE STANDARD

Cut from insulation or sheath of the cable after any ridges are removed, this dumbbell is used for tensile strength and elongation at break before and after ageing. The large dumbbell (4 mm x 25 mm, ISO 37 Type 2 style) is preferred when the sample is wide enough.

**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 EN 60811-501 Fig. 1 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-EN60811501-F1