

**HARDENED STEEL CUTTING DIE**

# Hardened Steel Cutting Die for ISO 1798 Type 1A

Foam Dumbbell Type 1A · Tensile specimen — built to ISO 1798: Flexible cellular polymeric materials — Determination of tensile strength and elongation at break



## OVERVIEW

Solid cutting die for cutting Foam Dumbbell Type 1A specimens to ISO 1798. 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           | 120 mm      |
| Width of ends            | 25 mm       |
| Width of narrow section  | 10 mm       |
| Length of narrow section | 40 mm       |
| Gauge length (max)       | 40 mm       |
| Thickness                | 10 to 15 mm |

Nominal values per ISO 1798; 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           | Foam Dumbbell Type 1A per ISO 1798                                  |

## APPLICATIONS

- Furniture & bedding foam
- Automotive seating
- Packaging foam
- Sports & medical padding

## ABOUT THE STANDARD

ISO 1798 determines tensile strength and elongation at break of flexible foams using die-cut dumbbells. Type 1A is a shorter dumbbell for smaller foam samples.

**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 1798 Type 1A 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-ISO1798-T1A