

**HARDENED STEEL CUTTING DIE**

# Hardened Steel Cutting Die for JIS K7113 Fig. 2 Type 1

Plastics Tensile Dumbbell No. 1 · Tensile specimen — built to JIS K7113: Testing method for tensile properties of plastics



## OVERVIEW

Solid cutting die for cutting Plastics Tensile Dumbbell No. 1 specimens to JIS K7113. 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           | 175 mm      |
| Width of ends            | 20 mm       |
| Width of narrow section  | 10 ± 0.5 mm |
| Length of narrow section | 60 ± 0.5 mm |
| Transition radius        | 60 mm       |
| Gauge length             | 50 ± 0.5 mm |
| Recommended thickness    | 3 ± 0.2 mm  |

Nominal values per JIS K7113; 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           | Plastics Tensile Dumbbell No. 1 per JIS K7113                       |

## APPLICATIONS

- Molded plastic resin QC
- Material datasheet property generation
- Incoming resin lot acceptance
- Polymer R&D and compound comparison

**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.

## ABOUT THE STANDARD

JIS K7113 was the former Japanese method for tensile testing of plastics. The No. 1 specimen is the full-size dumbbell for molded or machined rigid and semi-rigid plastics.

### Also available: Ribbon Steel version

Economical steel-rule die for rubber, elastomers and soft plastics up to 3 mm thick — same JIS K7113 Fig. 2 Type 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.  
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