

HARDENED STEEL CUTTING DIE

Hardened Steel Cutting Die for ISO 180 Type A

Notched Izod Bar · Izod impact specimen — built to ISO 180: Plastics — Determination of Izod impact strength


OVERVIEW

Solid cutting die for cutting Notched Izod Bar specimens to ISO 180. 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

Length	80 ± 2 mm
Width	10.0 ± 0.2 mm
Thickness	4.0 ± 0.2 mm
Notch angle	45 ± 1°
Notch tip radius	0.25 ± 0.05 mm
Remaining width under notch	8.0 ± 0.2 mm

Nominal values per ISO 180; die is cut to the standard's profile.

APPLICATIONS

- Engineering thermoplastics
- Automotive interior trim
- Consumer product housings
- Resin quality control

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	Notched Izod Bar per ISO 180

ABOUT THE STANDARD

ISO 180 measures the impact energy absorbed by a vertically clamped cantilever plastic bar struck by a pendulum. The Type A V-notch (2 mm deep) creates a standard stress concentration for notched Izod impact strength.

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 180 Type A 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-ISO180-TAnotch