Multipurpose Dumbbell Specimen Cutter for Plastics

Built to ISO 3167 — Plastics — Multipurpose test specimens



OVERVIEW

Precision cutting die for producing multipurpose dumbbell specimens from plastic sheet. The die's hardened, sharpened edge follows the standard Type A outline, and a spring-loaded ejector plate pushes the cut specimen out cleanly, giving consistent gauge width and shoulder radii from specimen to specimen.

KEY FEATURES

- Cutting edge follows the multipurpose Type A dumbbell outline
- Hardened, ground cutting edge for clean, burr-free specimen sides
- Integrated ejector plate releases specimens without distortion
- Heavy backing block gives rigid, even support under press load
- Suits hand-lever, toggle or pneumatic specimen presses

TECHNICAL SPECIFICATIONS

Cutter type	Dumbbell cutting die with ejector
Specimen geometry	ISO 3167 Type A (ISO 527-2 Type 1A)
Cutting edge	Hardened, precision-ground steel
Material thickness range	Thin to moderate sheet; confirm material and thickness at quote
Construction	Steel die on solid backing block, screwed ejector plate
Press compatibility	Manual, toggle or pneumatic specimen presses
Specimen release	Spring-loaded ejector plate
Other geometries	Type B and custom dumbbells on request

APPLICATIONS

- Thermoplastic and thermoset sheet
- Tensile testing per ISO 527-2
- Resin and compound qualification
- Quality control of extruded sheet

ABOUT THE STANDARD

ISO 3167 defines the multipurpose test specimen for plastics, a dumbbell with a parallel central section that can be used directly or cut into bars for tensile, flexural, impact, heat deflection and other tests. Specimen Types A and B differ in their shoulder geometry; Type A corresponds to the ISO 527-2 Type 1A tensile specimen.

Ordering & customization: Specify specimen type, material and thickness range, and the press or cutting method to be used when ordering.

Specifications are typical and may vary by configuration; confirm at time of quote. Users should refer to the current edition of the standard for test procedures. Part ref. UGC-ISO3167-SC