

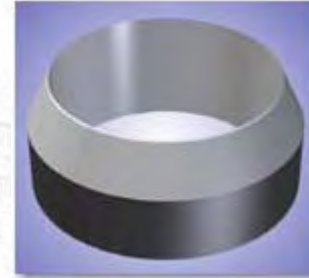
Ultra-Life D471 Standard Die

CCSi manufactures these high quality *Ultra-Life* Specimen Cutting Dies for the evaluation of the comparative ability of vulcanized rubber, fabric coated with vulcanized rubber, and finished articles of rubber and rubber-like compositions to withstand the effect of liquids, as described in [ASTM D471](#) 'Standard Test Methods for Rubber Property – Effects of Liquids'.

The standard specimen, as specified in D471, Part 9, 'Test Specimen – Change in Mass or Volume', is rectangular with dimensions of 25 x 50 x 2.0 ± 0.1 mm (1.0 x 2.0 x 0.08 ± 0.004 inch).

Part 9 also stipulates that when the specimen is to be obtained from a test piece (acquired from an article) that has a thickness greater than 2.0 mm (0.08 inch) it "...should be reduced to a thickness of 2.0 ± 0.1 mm (0.08 ± (0.004 in.)."

CCSi features the [Emerson Type Rubber Buffer](#) and the [Hung Ta™ Par-Marton Type Specimen Adjuster](#), both of which are suitable for reducing the thickness of articles, test pieces, and test specimens and are recommended in this application. They comply with the requirements of [ASTM D3183](#) 'Standard Practice for Rubber – Preparation of Pieces for Test Purposes from Products'.



Ultra-Life D471 Part 13 Die

The test specimen, described in D471, Part 13, 'Procedure for Change in Mass with Liquid on One Surface Only', is 60 mm (2.4 inch) in diameter, and the thickness of thin sheet or rubber coated fabric being tested (assuming a thickness no greater than 2.0 mm, or 0.08 inch). CCSi also manufactures this specimen cutting die, as well as the Surface Immersion Apparatus (by special request) for conducting the *Part 13* test procedure.

CCSi *Ultra-Life* Specimen Dies: Quality Manufacturing

CCSi *Ultra-Life* specimen cutting dies are manufactured from homogenous, solid, high carbon content A2 tool steel. Each undergoes multi-axis precision grinding and conventional, plunge, or wire EDM (Electrical Discharge Machining) processes ... producing a world-class, close tolerance die.

Precision grinding and EDM processes ensure true parallelism and multi-plane dimensional accuracy. The quality of materials, design, and engineering serve to provide the highest specimen quality possible, over an extended service life.

Where highly technical manufacturing techniques and processes end ... old-world craftsmanship begins!

CCSi *Ultra-Life* specimen cutting dies are individually serialized, hand-honed, and mirror polished. A protective coating of industrial enamel is applied to the non-cutting surfaces before undergoing a rigorous final inspection.

Each *Ultra-Life* specimen cutting die includes a detailed final report and certification to the applicable standard, traceable to NIST, and compliant with ISO 9001:2000 and ISO/IEC 17025. The specimen dies are placed in a plastic, blow-molded, 'clam shell' style case with a foam lining to protect the die during transport and storage.

CCSi *Ultra-Life* Specimen Dies: Features

The CCSi Specimen Cutting Dies Feature:

- Exclusive *Ultra-Life* cutting edge technology;
- Designed with advanced 3D solid modeling;
- High carbon content A2 tool steel;
- Manufactured using computerized systems and techniques;
- EDM (Electrical Discharge Machining);
- CNC (Computer Numerical Control) 4 axis machining;
- Precision ground;
- Expertly honed;
- Finely polished;
- Protective industrial enamel coating;
- Plastic, foam lined, protective case;
- Traceability of dimensional measurement to NIST;
- Certification to ASTM D471;
- Compliance with ISO 9001:2000 and ISO/IEC 17025;

Available in:

- ASTM D471 Standard Configuration;
- ASTM D471 Part 13 Configuration;
- Mallet handle, arbor press mount, & press adapter versions.

CCSi *Ultra-Life* ASTM D471 Specimen Cutting Dies: Specifications & Pricing

Part Number	Description	Dimensions
CCSi-D471-An	D471 Die without mounting device	25 x 50 x 2.0 ± 0.1 mm (1 x 2 x 0.08 ± 0.004 inch)
CCSi-D471-Aa	D471 Die with arbor press mount	
CCSi-D471-Ap	D471 Die with press adapter	
CCSi-D471-Am	D471 Die with mallet handle	
CCSi-D471-P13n	D471 Part 13 Die without mounting device	60 mm Ø (2.4 inch Ø)
CCSi-D471-P13a	D471 Part 13 Die with arbor press mount	
CCSi-D471-P13p	D471 Part 13 Die with press adapter	
CCSi-D471-P13m	D471 Part 13 Die with mallet handle	
CCSi-D471-P13i	ASTM D471 Part 13 Apparatus	Surface Immersion Apparatus
Please Request a Quotation for current pricing and delivery.		

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