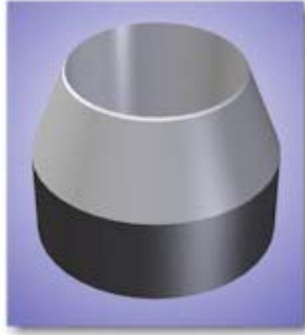


CCSi *Ultra-Life* Specimen Cutting Dies: ASTM D6049



CCSi manufactures this high quality Specimen Cutting Die for measuring and characterizing the rheological behavior (viscosity and elasticity) of unvulcanized raw rubbers and rubber compounds, relating to the macro structure of rubber polymers (average molecular weight, molecular weight distribution, long chain branching, and micro- and macro-gel), as described in [ASTM D6049](#) 'Standard Test Method for Rubber Property—Measurement of the Viscous and Elastic Behavior of Unvulcanized Raw Rubbers and Rubber Compounds by Compression Between Parallel Plates'.

D6049 is an adaptation of DIN 53514, a further development of the former "Defo Test."

Ultra-Life D6049 Specimen Die

The viscosity and elasticity of unvulcanized rubbers and rubber compounds are determined by subjecting cylindrical test specimens to a compression/recovery cycle. The dependency on shear rate at constant shear stress is evaluated and the material fatigue behavior is determined in repeat cycle testing.

The non-Newtonian viscous and elastic behaviors can also be evaluated. An evaluation of the statistical test data is an indicator of data variation, which may estimate the homogeneity of the materials... very useful tools in processability!

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 D6049;
- Compliance with ISO 9001:2000 and ISO/IEC 17025.

Available in:

- ASTM D6049 Standard Die.

 Compression molding is the preferred method for preparing D6049 specimens, whenever it is practical. Please visit the CCSi specimen mold pages for more information.

CCSi *Ultra-Life* ASTM D6049 Specimen Cutting Dies: Specifications & Pricing

Part Number	Description	Dimensions
CCSi-D6049-An	D6049 Die without mounting device	30 ± 0.1 mm Ø x 13 ± 0.1 mm (1.18 ± 0.004 x 0.51 ± 0.004 in.)
CCSi-D6049-Aa	D6049 Die with arbor press mount	
CCSi-D6049-Ap	D6049 Die with press adapter	
CCSi-D6049-Am	D6049 Die with mallet handle	
Please Request a Quotation for current pricing and delivery.		

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