SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

SMITHERS
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MECHANICAL

Valid To: March 31, 2024 Certificate Number: 0363.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following types of tests on adhesives, sealants, plastics, polymers, natural rubber, latex and rubber products:

Test:	**Test Method(s):**
Tensile, Elongation, Modulus	ASTM D412 ASTM D378 ASTM D638 ISO 37 DIN 53504
Tear Resistance	ASTM D378 ASTM D624 ISO 34-1 ISO 34-2
Compression Set	ASTM D395 ISO 6505 ISO 815-1
Properties of Rubber in Compression	ASTM D575
Durometer Hardness, Shore A, D & M	ASTM D2240
IRHD	ASTM D1415 ISO 48 ISO 3387
Flex Fatigue	
Dynamic Fatigue	ASTM D430 Method B
Crack Growth	ASTM D813
Cut Growth	ASTM D1052
Monsanto Flex Extension Cycling Fatigue	ASTM D4482

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Test:	**Test Method(s):**
Adhesion Strength	ASTM D413 Machine Method ASTM D429 Methods A & B
Adhesion Between Steel Tire Cords and Rubber	ASTM D2229 ASTM D885
Low Temperature Brittleness	ASTM D746 ISO 812
Brittleness Point of Flexible Polymers	ASTM D2137
Low Temperature Retraction	ASTM D1329 ISO 2921
Low Temperature Bend Test, Coated Fabrics	ASTM D2136
Stiffening at Low Temperatures, Gehman	ASTM D1053 Method A ISO 1432
Environmental Simulation	
High Temperature	ASTM D573 ASTM D865 ISO 188
Ozone Resistance	ASTM D518-99 (Withdrawn 2008)[1] ASTM D1149 (Except Method A Procedure A2 and Method B Procedure B3) ASTM D1171 ISO 1431-1 ISO 6722-1 (Section 5.19) ISO 7840 (Section 5.8) ISO 19642-2 (Sections 5.4.14 & 6.4.12) SAE J1128 (Section 6.8) SAE J1206
Dynamic Ozone Cracking in a Chamber	ASTM D3395-99 Method A (Withdrawn 2007)[1]
Air Oxygen Bomb	ASTM D454 ASTM D572
Fluid Aging	ASTM D471 ISO 1817
Salt Spray	ASTM B117 ABNT NBR 6752
Humidity	ASTM D1735
Flexural Properties	ASTM D790
Specific Gravity/Density	ASTM D792 ASTM D1475 ASTM D297 ISO 1183 ISO 2781

Test:	Test Method(s):
Medical Glove Hole Detection	ASTM D5151
O-Ring Testing, Tensile	ASTM D1414 (Section 8)
Water Absorption of Plastics	ASTM D570
Dynamic Testing, Flexometer	ASTM D623 Method A
Effect of Household Chemicals	ASTM D1308
Adhesion by Tape Test	ASTM D3359 ABNT NBR 11003
Abrasion Resistance (Rotary Drum)	ASTM D5963
Rubber Process Analyzer (RPA)[2]	ASTM D5289 ASTM D5992 ASTM D6048 ASTM D6204 ASTM D6601 ASTM D7050 ASTM D7605 ASTM D8059
Tensile Green Strength of Unvulcanized Rubber	ASTM D6746 ASTM D3182
Mooney Viscosity	ASTM D1646
Rheometer (ODR)	ASTM D2084
Staining of Surfaces	ASTM D925
BFG Cut & Chip	MT 2051.01
Resilience by Vertical Rebound, Bashore	ASTM D2632
Impact Resistance, Izod Pendulum	ASTM D256
Volume Resistivity	ASTM D991
Static and Kinetic Coefficients of Friction	ASTM D1894
DC Resistance or Conductance of Insulating Materials, Surface	ASTM D257
Heat and UV Light Discoloration of Light Colored Surfaces	ASTM D1148
Fluorescent UV Exposure of Plastics, QUV	ASTM D4329
Fluorescent Light Apparatus for UV Exposure	ASTM G154
Xenon Arc Light Apparatus for Exposure on Non-Metallic Materials	ASTM G155

Test:	Test Method(s):
Melt Flow Rates of Thermoplastics by Extrusion Plastometer	ASTM D1238 Method A ISO 1133
Abrasion Resistance by the Pico Abrader Method	ASTM D2228
Abrasion Resistance Coated Fabrics, Taber	ASTM D3389
Compressive Properties of Rigid Plastics	ASTM D695
Dielectric Strength, AC	ASTM D149
Compression Stress Relaxation	ASTM D6147 ISO 3384
Flammability	FMVSS 302 ASTM C1166 UL 94
Floating Roller Peel Resistance of Adhesives	ASTM D3167
Tensile Green Strength of Unvulcanized Rubber	ASTM D6746 ASTM D3182
Tensile Properties of Thin Plastic Films	ASTM D882
Tear Propagation Resistance of Plastic Film and Thin Sheeting	ASTM D1938
Resistance of Plastics to Chemical Reagents	ASTM D543 Method A
Viscoelastic Properties[2] DMTA (Dynamic Mechanical Thermal Analysis) (0.0005-35 N; 0.01-100 Hz; -150-600 °C; 0.1-60 °C/min; +/- 0.1 °C)	ASTM E1640 Ford TM-04.04-E4335
Conditioning of Plastics for Testing	ASTM D618
Rubbers – Standard Temperatures for Testing	ASTM D1349

[1]This laboratory's scope contains withdrawn or superseded methods. As a clarifier, this indicates that the applicable method itself has been withdrawn or is now considered "historical" and not that the laboratory's accreditation for the method has been withdrawn

[2]This laboratory also uses proprietary, customer supplied, or other commercial or industry test methods similar to this standard test, but do not reference this or other standard tests.

Accredited Laboratory

A2LA has accredited

SMITHERS

Akron, OH

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated April 2017*).

Presented this 30th day of May 2022.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 0363.02
Valid to March 31, 2024

For the types of tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.