Cambridge Polymer Group

ASTM Testing

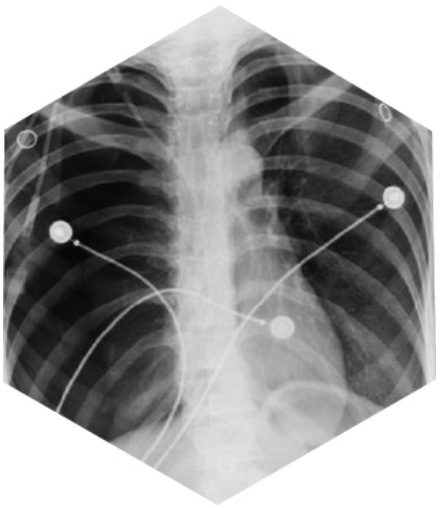
With years of expertise in testing materials and systems, and heavy involvement in developing new standards with ASTM, our ISO-certified analytical lab offers extensive ASTM standard testing.

ASTM D-Series

D256	Determining the Izod Pendulum Impact Resistance of Plastics
D542	Index of Refraction of Transparent Organic Plastics
D638	Tensile Properties of Plastics
D695	Compressive Properties of Rigid Plastics
D732	Shear Strength of Plastics by Punch Tool
D790	Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
D792	Density and Specific Gravity (Relative Density) of Plastics by Displacement
D882	Tensile Properties of Thin Plastic Sheeting
D903	Peel or Stripping Strength of Adhesive Bonds
D1003	Haze and Luminous Transmittance of Transparent Plastics
D1238	Melt Flow Rates of Thermoplastics by Extrusion Plastometer
D1414	Rubber O-Rings
D1505	Density of Plastics by the Density-Gradient Technique
D1601	Dilute Solution Viscosity of Ethylene Polymers
D1894	Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting
D2240	Rubber Property—Durometer Hardness
D2261	Tearing Strength of Fabrics by the Tongue (Single Rip) Procedure (Constant-Rate-of-Extension Tensile Testing Machine)
D2765	Determination of Gel Content and Swell Ratio of Crosslinked Ethylene Plastics
D3330	Peel Adhesion of Pressure-Sensitive Tape
D3418	Transition Temperatures and Enthalpies of Fusion and Crystallization of Polymers by Differential Scanning Calorimetry
D3465	Purity of Monomeric Plasticizers by Gas Chromatography
D3759	Breaking Strength and Elongation of Pressure-Sensitive Tape
D3787	Bursting Strength of Textiles—Constant-Rate-of-Traverse (CRT) Ball Burst Test
D3835	Determination of Properties of Polymeric Materials by Means of a Capillary Rheometer
D3895	Oxidative-Induction Time of Polyolefins by Differential Scanning Calorimetry
D4179	Single Pellet Crush Strength of Formed Catalysts and Catalyst Carriers
D4020	Standard Specification for UHMWPE Molding and Extrusion Materials
D4275	Determination of Butylated Hydroxy Toluene (BHT) in Polymers of Ethylene and Ethylene–Vinyl Acetate (EVA) Copolymers By Gas Chromatography
D4526	Determination of Volatiles in Polymers by Static Headspace Gas Chromatography
D4603	Determining Inherent Viscosity of PET by Glass Capillary Viscometer
D4812	Unnotched Cantilever Beam Impact Resistance of Plastics
D4839	Total Carbon and Organic Carbon in Water by Ultraviolet, or Persulfate Oxidation, or Both, and Infrared Detection
D5023	Plastics: Dynamic Mechanical Properties: In Flexure (Three-Point Bending)
D5508	Determination of Residual Acrylonitrile Monomer in Styrene-Acrylonitrile Copolymer Resins and Nitrile-Butadiene Rubber by Headspace-Capillary Gas Chromatography (HS-CGC)
D5946	Corona-Treated Polymer Films Using Water Contact Angle Measurements
D6862	90 Degree Peel Resistance of Adhesives
D5026	Plastics: Dynamic Mechanical Properties: In Tension
D7028	Glass Transition Temperature (DMA Tg) of Polymer Matrix Composites by Dynamic Mechanical Analysis (DMA)
D7083	Determination of Monomeric Plasticizers in Poly (Vinyl Chloride) (PVC) by Gas Chromatography

ASTM E-Series

E647	Measurement of Fatigue Crack Growth Rates
E831	Linear Thermal Expansion of Solid Materials by Thermomechanical Analysis
E1131	Compositional Analysis by Thermogravimetry
E1530	Evaluating the Resistance to Thermal Transmission of Materials by the Guarded Heat Flow Meter Technique
E1640	Assignment of the Glass Transition Temperature By Dynamic Mechanical Analysis
E1952	Thermal Conductivity and Thermal Diffusivity by Modulated Temperature Differential Scanning Calorimetry
E2009	Oxidation Onset Temperature of Hydrocarbons by Differential Scanning Calorimetry



ASTM F-Series

F640	Determining Radiopacity for Medical Use
F648	Standard Specification for UHMWPE Powder and Fabricated Form for Surgical Implants
F1635	in vitro Degradation Testing of Hydrolytically Degradable Polymer Resins and Fabricated Forms for Surgical Implants
F1980	Accelerated Aging of Sterile Barrier Systems for Medical Devices
F2003	Accelerated Aging of Ultra-High Molecular Weight Polyethylene after Gamma Irradiation in Air
F2102	Evaluating the Extent of Oxidation in Polyethylene Fabricated Forms Intended for Surgical Implants
F2183	Small Punch Testing of Ultra-High Molecular Weight Polyethylene Used in Surgical Implants
F2214	In Situ Determination of Network Parameters of Crosslinked UHMWPE
F2255	Strength Properties of Tissue Adhesives in Lap-Shear by Tension Loading
F2256	Strength Properties of Tissue Adhesives in T-Peel by Tension Loading
F2381	Evaluating Trans-Vinylene Yield in Irradiated UHMWPE Fabricated Forms Intended for Surgical Implants by Infrared Spectroscopy
F2392	Burst Strength of Surgical Sealants
F2458	Wound Closure Strength of Tissue Adhesives and Sealants
F2459	Extracting Residue from Metallic Medical Components and Quantifying via Gravimetric Analysis
F2565	Extensively Irradiation-Crosslinked UHMWPE Fabricated Forms for Surgical Implant Applications

Cambridge Polymer Group, Inc. is a contract research laboratory specializing in materials. We partner with our clients to solve problems utilizing our multi-disciplinary research team and full service laboratory.

We work with clients throughout the product life cycle to:

- Develop new materials
- Design prototypes for proof-of-concept studies
- Create and execute experimental design
- Validate and verify manufacturing processes
- Perform root-cause analysis in product failures

Cambridge Polymer Group, Inc. was founded in 1996 to provide a cost-effective resource for testing, research and development to clients who need periodic access to Ph.D.-level scientists and their support structure. We have developed a host of testing methods and materials for our clients, which number more than 600.

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ISO 17025 Accredited & ISO 9001:2015 Certified

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