

# ASTM Test Methods

Navigating the many existing testing agencies in order to identify an appropriate testing procedure can be a challenging task. The expansion of global trade has driven regulatory agencies and quality management systems to define standardized test methods. This ensures accuracy and uniformity of testing, data collection and reporting.

If an Aspen client is uncertain of an applicable test method for their situation, Aspen will assist them in identifying a standard appropriate for their requirements and needs. For example, the standards published by ASTM International cover a wide spectrum of materials, products, systems and services, several of which Aspen periodically conducts for its clients.

The list below is by no means comprehensive. Aspen frequently collaborates with clients on new or different test methods.

A967	Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts
D256	Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics
D374	Standard Test Methods for thickness of Solid Electrical Insulation
D624	Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers
D638	Standard Test Method for Tensile Properties of Plastics
D648	Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position
D790	Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
D792	Standard Test Method for Density and Specific Gravity of Plastics by Displacement
D824	Standard Test Method for Apparent Viscosity of Plastisols and Organosols at Low Shear Rates
D882	Standard Test Method for Tensile Properties of Thin Plastic Sheeting
D903	Standard Test Method for Peel or Stripping Strength of Adhesive Bonds
D1004	Standard Test Method for Tear Resistance (Graves Tear) of Plastic Film and Sheeting
D1024	Method of Test for Butadiene Dimer and Styrene in Butadiene Concentrates (Withdrawn 1969)
D1238	Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer
D1308	Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes
D1525	Standard Test Method for Vicat Softening Temperature of Plastics
D1761	Standard Test Methods for Mechanical Fasteners in Wood
D1908	Test Method for Needle Related Damage Due to Sewing in Woven Fabrics (Withdrawn 1998)
D1938	Standard Test Method for Tear Propagation Resistance (Trousers Tear) of Plastic Film and Thin Sheeting by a Single Tear Method
D2000	Standard Classification System for Rubber Products in Automotive Applications
D2240	Standard Test Method for Rubber Property-Durometer Hardness
D2578	Standard Test Method for Wetting Tension of Polyethylene & Polypropylene Films
D2732	Standard Test Method for Unrestrained Linear Thermal Shrinkage of Plastic Film and Sheeting
D3330	Standard Test Method for Peel Adhesion of Pressure Sensitive Tape

## ASTM Test Methods *(Continued)*

D3359	Standard Test Methods for Measuring Adhesion by Tape Test
D3418	Standard Test Method for Transition Temperature and Enthalpies of Fusion and Crystallization of Polymers by Differential Scanning Calorimetry
D3677	Standard Test Method for Rubber Identification by Infrared Spectrophotometry (IR)
D4812	Standard Test Method for Un-notched Cantilever Beam Impact Resistance of Plastics
D5179	Standard Test Method for Measuring Adhesion of Organic Coatings to Plastic Substrates by Direct Tensile Testing
D5418	Standard Test Method for Dynamic Mechanical Properties: In Flexure
D6869	Standard Test Method for Coulometric and Volumetric Determination of Moisture in Plastics using Karl Fischer Reaction
D7709	Standard Test Methods for Measuring Water Vapor Transmission Rate (WVTR) of Pharmaceutical Bottles and Blisters
E3	Standard Guide for Preparation of Metallographic Specimens
E8/E8M	Standard Test Method for Tension Testing of Metallic Materials
E18	Standard Test Method for Rockwell Hardness of Metallic Materials
E96/E96M	Standard Test methods for Water Vapor Transmission of Materials
E203	Standard Test Method for Water Using Volumetric Karl Fischer Titration
E384	Standard Test Method for Knoop and Vickers Hardness of Materials
E517	Standard Test Method for Plastic Strain Ratio $r$ for Steel Metal
E537	Standard Test Method for the Thermal Stability of Chemicals by Differential Scanning Calorimetry (DSC)
E794	Standard Test Method for Melting and Crystallization Temperatures by Thermal Analysis
E831	Standard Test Method for Linear Thermal Expansion of Solid Materials by Thermomechanical Analysis
E1064	Standard Test Method for Water in Organic Liquids by Coulometric Karl Fischer Titration
E1269	Standard Test Method for Determining Specific Heat Capacity by Differential Scanning Calorimetry
E1356	Standard Test Method for Assignment of the Glass Transition Temperature for Differential Scanning Calorimetry
E2097	Standard Guide for Determining the Impact of Extractables from Non-Metallic Materials on the Safety of Biotechnology Products
F904	Standard Test Method for Comparison of Bond Strength or Ply Adhesion of Similar Laminates Made from Flexible Materials
F2004	Standard Test Method for Transformation Temperature of Nickel-Titanium Alloys by Thermal Analysis
F2129	Standard Test Method for Conducting Cyclic Potentiodynamic Polarization Measurements to Determine the Corrosion Susceptibility of Small Implant Devices
F2459	Standard Test Method for Extracting Residue from Metallic Medical Components & Quantifying via Gravimetric Analysis
G61	Standard Test Method for Conducting Cyclic Potentiodynamic Polarization Measurements for Localized Corrosion Susceptibility of Iron-, Nickel-, or Cobalt-Based Alloys
G120	Standard Practice for Determination of Soluble Residual Contamination by Soxhlet Extraction