

Standards for Inclusion in ASTM Standards on Materials and Environmental Microbiology (March 2017)

Standard Number	Title
D7391	Standard Test Method for Categorization and Quantification of Airborne Fungal Structures in an Inertial Impaction Sample by Optical Microscopy
D7788	Standard Practice for Collection of Total Airborne Fungal Structures via Inertial Impaction Methodology
D7789	Standard Practice for Collection of Fungal Material from Surfaces by Swab
D7816	Standard Test Method for Enumeration of Halophilic and Proteolytic Bacteria in Raceway Brine, Brine-Cured Hides and Skins
D7817	Standard Test Method for Enumeration of Yeast and Mold in Raceway Brine, Brine-Cured Hides and Skins
D7818	Standard Test Method for Enumeration of Proteolytic Bacteria in Fresh (Uncured) Hides and Skins
D7819	Standard Test Method for Enumeration of Yeast and Mold on Fresh (Uncured) Hides and Skins
E2870	Standard Test Method for Evaluating Relative Effectiveness of Antimicrobial Handwashing Formulations using the Palmar Surface and Mechanical Hand Sampling
E2871	Standard Test Method for Evaluating Disinfectant Efficacy Against <i>Pseudomonas aeruginosa</i> Biofilm Grown in CDC Biofilm Reactor Using Single Tube Method

Standard Number	Title
E2894	Standard Test Method for Applying Aerosolized Bacillus Spores as Dry Inocula to Inanimate Surfaces
E2895	Standard Test Method for Producing High Titers of Viable and Semi-Purified Spores of Clostridium difficile using a Liquid Medium
E2896	Standard Test Method for Quantitative Petri Plate Method (QPM) for Determining the Effectiveness of Antimicrobial Towelettes
E2897	Standard Guide for Evaluation of the Effectiveness of Hand Hygiene Topical Antimicrobial Products using ex vivo Porcine Skin
E2922	Standard Guide for The Use of Standard Test Methods and Practices for Evaluating Antibacterial Activity on Textiles
E2946	Standard Test Method for Determining the Bacteria-Reducing Effectiveness of Food-Handler Handwash Formulations Using Hands of Adults
E2966	Standard Test Method for Quantitative Assessment of Sanitizing Solutions for Carpet
E2967	Standard Test Method for Assessing the Ability of Pre-wetted Towelettes to Remove and Transfer Bacterial Contamination on Hard, Non-Porous Environmental Surfaces Using the Wiperator
E3011	Standard Test Method for In vitro production of Clostridium Difficile Spores

Standard Number	Title
E3031	Standard Test Method for Determination of Antibacterial Activity on Ceramic Surfaces
E3058	Standard Test Method for Determining the Residual Kill Activity of Hand Antiseptic Formulations
D6249	Guide for Alkaline Stabilization of Wastewater Treatment Plant Residuals
C1338	Test Method for Determining Fungi Resistance of Insulation Materials and Facings
D2574	Test Method for Resistance of Emulsion Paints in the Container to Attack by Microorganisms
D3273	Test Method for Resistance to Growth of Mold on the Surface of Interior Coatings in an Environmental Chamber
D3274	Test Method for Evaluating Degree of Surface Disfigurement of Paint Films by Fungal or Algal Growth, or Soil and Dirt Accumulation
D3456	Practice for Determining by Exterior Exposure Tests the Susceptibility of Paint Films to Microbiological Attack
D4610	Guide for Determining the Presence of and Removing Microbial (Fungal or Algal) Growth on Paint and Related Coatings
D5588	Test Method for Determination of the Microbial Condition of Paint, Paint Raw Materials, and Plant Areas
D5589	Test Method for Determining the Resistance of Paint Films and Related Coatings to Algal Defacement
D5590	Test Method for Determining the Resistance of Paint Films and Related Coatings to Fungal Defacement by Accelerated Four-Week Agar Plate Assay
D7855	Test Method for Determination of Mold Growth on Coated Building Products Designed for Interior Applications Using an Environmental Chamber and Indirect Inoculation
D3623	Test Method for Testing Antifouling Panels in Shallow Submergence
D4939	Test Method for Subjecting Marine Antifouling Coating to Biofouling and Fluid Shear Forces in Natural Seawater
D5479	Practice for Testing Biofouling Resistance of Marine Coatings Partially Immersed
D5864	Test Method for Determining Aerobic Aquatic Biodegradation of Lubricants or Their Components
D6139	Test Method for Determining the Aerobic Aquatic Biodegradation of Lubricants or Their Components Using the Gledhill Shake Flask
D6731	Test Method for Determining the Aerobic, Aquatic Biodegradability of Lubricants or Lubricant Components in a Closed Respirometer
D6469	Guide for Microbial Contamination in Fuels and Fuel Systems
D6974	Practice for Enumeration of Viable Bacteria and Fungi in Liquid Fuels--Filtration and Culture Procedures
D7463	Test Method for Adenosine Triphosphate (ATP) Content of Microorganisms in Fuel, Fuel/Water Mixtures, and Fuel Associated Water

Standard Number	Title
D7464	Practice for Manual Sampling of Liquid Fuels, Associated Materials and Fuel System Components for Microbiological Testing
D7687	Test Method for Measurement of Cellular Adenosine Triphosphate in Fuel, Fuel/Water Mixtures, and Fuel-Associated Water with Sample Concentration by Filtration
D7847	Guide for Interlaboratory Studies for Microbiological Test Methods
D7978	Test Method for Determination of the Viable Aerobic Microbial Content of Fuels and Associated Water - Thixotropic Gel Culture Method.
D8070	Standard Test Method for Screening of Fuels and Fuel Associated Aqueous Specimens for Microbial Contamination by Lateral Flow Immunoassay
D1413	Test Method for Wood Preservatives by Laboratory Soil-Block Cultures
D4445	Test Method for Fungicides for Controlling Sapstain and Mold on Unseasoned Lumber (Laboratory Method)
D7102	Guide for Determination of Endotoxin on Sterile Medical Gloves
D7103	Guide for Assessment of Medical Gloves
D7907	Standard Test Methods for Determination of Bactericidal Efficacy on the Surface of Medical Examination Gloves
D4300	Test Methods for Ability of Adhesive Films to Support or Resist the Growth of Fungi
D4783	Test Methods for Resistance of Adhesive Preparations in Container to Attack by Bacteria, Yeast, and Fungi
D3862	Test Method for Retention Characteristics of 0.2-m Membrane Filters Used in Routine Filtration Procedures for the Evaluation of Microbiological Water Quality
D3863	Test Method for Retention Characteristics of 0.40 to 0.45-m Membrane Filters Used in Routine Filtration Procedures for the Evaluation of Microbiological Water Quality
D4196	Test Method for Confirming the Sterility of Membrane Filters
D4198	Test Methods for Evaluating Absorbent Pads Used with Membrane Filters for Bacteriological Analysis and Growth
D4200	Test Method for Evaluating Inhibitory Effects of Ink Grids on Membrane Filters
D0932	Practice for Filamentous Iron Bacteria in Water and Water-Formed Deposits
D3731	Practices for Measurement of Chlorophyll Content of Algae in Surface Waters
D4012	Test Method for Adenosine Triphosphate (ATP) Content of Microorganisms in Water
D4137	Practice for Preserving Phytoplankton Samples
D4148	Test Method for Analysis of Phytoplankton in Surface Water by the Sedgwick-Rafter Method
D4149	Classification for Sampling Phytoplankton in Surface Waters

Standard Number	Title
D4412	Test Methods for Sulfate-Reducing Bacteria in Water and Water-Formed Deposits
D4454	Test Method for Simultaneous Enumeration of Total and Respiring Bacteria in Aquatic Systems by Microscopy
D4455	Test Method for Enumeration of Aquatic Bacteria by Epifluorescence Microscopy Counting Procedure
D4994	Practice for Recovery of Viruses from Wastewater Sludges
D5245	Practice for Cleaning Laboratory Glassware, Plasticware, and Equipment Used in Microbiological Analyses
D5246	Test Method for Isolation and Enumeration of Pseudomonas aeruginosa from Water
D5259	Test Method for Isolation and Enumeration of Enterococci from Water by the Membrane Filter Procedure
D5392	Test Method for Isolation and Enumeration of Escherichia Coli in Water by the Two-Step Membrane Filter Procedure
D5465	Practice for Determining Microbial Colony Counts from Waters Analyzed by Plating Methods
D6503	Test Method for Enterococci in Water Using Enterolert
D6530	Test Method for Total Active Biomass in Cooling Tower Waters (Kool Kount Assay; KKA)
D6734	Test Method for Low Levels of Coliphages in Water
E1200	Practice for Preserving Zooplankton Samples
E1201	Practice for Sampling Zooplankton with Conical Tow Nets
D5210	Test Method for Determining the Anaerobic Biodegradation of Plastic Materials in the Presence of Municipal Sewage Sludge
D5210	Test Method for Determining the Anaerobic Biodegradation of Plastic Materials in the Presence of Municipal Sewage Sludge
D5511	Test Method for Determining Anaerobic Biodegradation of Plastic Materials Under High-Solids Anaerobic-Digestion Conditions
D6340	Test Methods for Determining Aerobic Biodegradation of Radiolabeled Plastic Materials in an Aqueous or Compost Environment
D6691	Test Method for Determining Aerobic Biodegradation of Plastic Materials in the Marine Environment by a Defined Microbial Consortium or Natural Sea Water Inoculum
E1370	Guide for Air Sampling Strategies for Worker and Workplace Protection
D5952	Guide for the Inspection of Water Systems for Legionella and the Investigation of Possible Outbreaks of Legionellosis (Legionnaires Disease or Pontiac Fever)
D6329	Guide for Developing Methodology for Evaluating the Ability of Indoor Materials to Support Microbial Growth Using Static Environmental Chambers
D7338	Guide for Assessment Of Fungal Growth in Buildings
D4576	Test Method for Mold Growth Resistance of Wet Blue
D7584	Test Method for Evaluating the Resistance of the Surface of Wet Blue to the Growth of Fungi in an Environmental Chamber
E0884	Practice for Sampling Airborne Microorganisms at Municipal Solid-Waste Processing Facilities
D1987	Test Method for Biological Clogging of Geotextile or Soil/Geotextile Filters

Standard Number	Title
E2694	Test Method for Measurement of Adenosine Triphosphate in Water-Miscible Metalworking Fluids
E2144	Practice for Personal Sampling and Analysis of Endotoxin in Metalworking Fluid Aerosols in Workplace Atmospheres
E2169	Practice for Selecting Antimicrobial Pesticides for Use in Water-Miscible Metalworking Fluids
E2563	Practice for Enumeration of Non-Tuberculosis Mycobacteria in Aqueous Metalworking Fluids by Plate Count Method
E2564	Practice for Enumeration of Mycobacteria in Metalworking Fluids by Direct Microscopic Counting (DMC) Method
E2657	Test Method for Determination of Endotoxin Concentrations in Water-Miscible Metalworking Fluids
E0640	Test Method for Preservatives in Water-Containing Cosmetics
E0645	Practice for Evaluation of Microbicides Used in Cooling Water Systems
E0723	Practice for Evaluation of Antimicrobials as Preservatives for Aqueous-Based Products Used in the Paper Industry (Bacterial Spoilage)
E0875	Test Method for Efficacy of Fungal Control Agents as Preservatives for Aqueous-Based Products Used in the Paper Industry
E0979	Practice for Evaluation of Antimicrobial Agents as Preservatives for Invert Emulsion and Other Water Containing Hydraulic Fluids
E1052	Test Method to Assess the Activity of Microbicides against Viruses in Suspension
E1053	Test Method to Assess Virucidal Activity of Chemicals Intended for Disinfection of Inanimate, Nonporous Environmental Surfaces
E1054	Test Methods for Evaluation of Inactivators of Antimicrobial Agents
E1115	Test Method for Evaluation of Surgical Hand Scrub Formulations
E1153	Test Method for Efficacy of Sanitizers Recommended for Inanimate, Hard, Nonporous Non-Food Contact Surfaces
E1173	Test Method for Evaluation of Preoperative, Precatheterization, or Preinjection Skin Preparations
E1174	Test Method for Evaluation of the Effectiveness of Health Care Personnel Handwash Formulations
E1259	Practice for Evaluation of Antimicrobials in Liquid Fuels Boiling Below 390C
E1326	Guide for Evaluating Nonconventional Microbiological Tests Used for Enumerating Bacteria
E1327	Test Method for Evaluation of Antimicrobial Handwash Formulations by Utilizing Fingernail Regions
E1428	Test Method for Evaluating the Performance of Antimicrobials in or on Polymeric Solids Against Staining by Streptomyce species (A Pink Stain Organism)
E1482	Practice for Use of Gel Filtration Columns for Cytotoxicity Reduction and Neutralization
E1589	Test Method for Evaluation of First Aid Antiseptic Drug Products
E1766	Test Method for Determination of Effectiveness of Sterilization Processes for Reusable Medical Devices
E1837	Test Method to Determine Efficacy of Disinfection Processes for Reusable Medical Devices (Simulated Use Test)
E1838	Test Method for Determining the Virus-Eliminating Effectiveness of Hygienic Handwash and Handrub Agents Using the Fingerpads of Adults

Standard Number	Title
E1839	Test Method for Efficacy of Slimicides for the Paper Industry--Bacterial and Fungal Slime
E1874	Test Method for Recovery of Microorganisms From Skin using the Cup Scrub Technique
E1882	Test Method for Evaluation of Antimicrobial Formulations by the Agar Patch Technique
E1883	Test Method for Assessment of an Antibacterial Handwash Product by Multiple Basin Wash Technique
E1891	Guide for Determination of a Survival Curve for Antimicrobial Agents Against Selected Microorganisms and Calculation of a D-Value and Concentration Coefficient
E2011	Test Method for Evaluation of Hygienic Handwash and Handrub Formulations for Virus-Eliminating Activity Using the Entire Hand
E2111	Quantitative Carrier Test Method to Evaluate the Bactericidal, Fungicidal, Mycobactericidal, and Sporicidal Potencies of Liquid Chemicals
E2149	Test Method for Determining the Antimicrobial Activity of Antimicrobial Agents Under Dynamic Contact Conditions
E2180	Test Method for Determining the Activity of Incorporated Antimicrobial Agent(s) In Polymeric or Hydrophobic Materials
E2196	Test Method for Quantification of Pseudomonas aeruginosa Biofilm Grown with Medium Shear and Continuous Flow Using Rotating Disk Reactor
E2197	Quantitative Disk Carrier Test Method for Determining Bactericidal, Virucidal, Fungicidal, Mycobactericidal, and Sporicidal Activities of Chemicals
E2274	Test Method for Evaluation of Laundry Sanitizers and Disinfectants
E2275	Practice for Evaluating Water-Miscible Metalworking Fluid Bioresistance and Antimicrobial Pesticide Performance
E2276	Test Method for Determining the Bacteria-Eliminating Effectiveness of Hygienic Handwash and Handrub Agents Using the Fingerpads of Adults
E2314	Test Method for Determination of Effectiveness of Cleaning Processes for Reusable Medical Instruments Using a Microbiologic Method (Simulated Use Test)
E2315	Guide for Assessment of Antimicrobial Activity Using a Time-Kill Procedure
E2361	Guide for Testing Leave-On Products Using In-Situ Methods
E2362	Practice for Evaluation of Pre-saturated or Impregnated Towelettes for Hard Surface Disinfection
E2406	Test Method for Evaluation of Laundry Sanitizers and Disinfectants for Use in High Efficiency Washing Operations
E2471	Test Method for Using Seeded-Agar for the Screening Assessment of Antimicrobial Activity In Carpets
E2562	Test Method for Quantification of Pseudomonas aeruginosa Biofilm Grown with High Shear and Continuous Flow using CDC Biofilm Reactor
E2613	Test Method for Determining Fungus-Eliminating Effectiveness of Hygienic Handwash and Handrub Agents Using Fingerpads of Adults
E2614	Guide for Evaluation of Cleanroom Disinfectants
E2647	Test Method for Quantification of Pseudomonas aeruginosa Biofilm Grown Using Drip Flow Biofilm Reactor with Low Shear and Continuous Flow

Standard Number	Title
E2720	Test Method for Evaluation of Effectiveness of Decontamination Procedures for Air-Permeable Materials when Challenged with Biological Aerosols Containing Human Pathogenic Viruses
E2721	Test Method for Evaluation of Effectiveness of Decontamination Procedures for Surfaces When Challenged with Droplets Containing Human Pathogenic Viruses
E2722	Test Method for Using Seeded-Agar for the Screening Assessment of Antimicrobial Activity in Fabric and Air Filter Media
E2752	Guide for Evaluation of Residual Effectiveness of Antibacterial Personal Cleansing Products
E2755	Test Method for Determining the Bacteria-Eliminating Effectiveness of Hand Sanitizer Formulations Using Hands of Adults
E2756	Terminology Relating to Antimicrobial and Antiviral Agents
E2783	Test Method for Assessment of Antimicrobial Activity for Water Miscible Compounds Using a Time-Kill Procedure
E2784	Test Method for Evaluation of the Effectiveness of Handwash Formulations Using the Paper Towel (Palmar) Method of Hand Contamination
E2799	Test Method for Testing Disinfectant Efficacy against <i>Pseudomonas aeruginosa</i> Biofilm using the MBEC Assay
E2839	Test Method for Production of <i>Clostridium difficile</i> Spores for Use in Efficacy Evaluation of Antimicrobial Agents
D3978	Practice for Algal Growth Potential Testing with <i>Pseudokirchneriella subcapitata</i>
E1023	Guide for Assessing the Hazard of a Material to Aquatic Organisms and Their Uses
E1218	Guide for Conducting Static Toxicity Tests with Microalgae
E1440	Guide for Acute Toxicity Test with the Rotifer <i>Brachionus</i>
E2800	Practice for Characterization of <i>Bacillus</i> Spore Suspensions for Reference Materials
F0838	Test Method for Determining Bacterial Retention of Membrane Filters Utilized for Liquid Filtration
E1566	Guide for Handling Hazardous Biological Materials in Liquid Nitrogen
E2449	Guide for Irradiation of Pre-packaged Processed Meat and Poultry Products to Control Pathogens and Other Microorganisms
F1356	Practice for Irradiation of Fresh and Frozen Red Meat and Poultry to Control Pathogens and Other Microorganisms
F1736	Guide for Irradiation of Finfish and Aquatic Invertebrates Used as Food to Control Pathogens and Spoilage Microorganisms
F1885	Guide for Irradiation of Dried Spices, Herbs, and Vegetable Seasonings to Control Pathogens and Other Microorganisms
F1094	Test Methods for Microbiological Monitoring of Water Used for Processing Electron and Microelectronic Devices by Direct Pressure Tap Sampling Valve and by the Presterilized Plastic Bag Method
F1608	Test Method for Microbial Ranking of Porous Packaging Materials (Exposure Chamber Method)
F2638	Test Method for Using Aerosol Filtration for Measuring the Performance of Porous Packaging Materials as a Surrogate Microbial Barrier
F2383	Guide for Assessment of Adventitious Agents in Tissue Engineered Medical Products (TEMPs)

Standard Number	Title
F1671	Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Blood-Borne Pathogens Using Phi-X174 Bacteriophage Penetration as a Test System
F2101	Test Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Materials, Using a Biological Aerosol of <i>Staphylococcus aureus</i>
G0021	Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi
G0029	Practice for Determining Algal Resistance of Plastic Films
G0160	Practice for Evaluating Microbial Susceptibility of Nonmetallic Materials By Laboratory Soil Burial
	The following Withdrawn or Historical standards were added in March 2017
D2020	Standard Test Methods for Mildew (Fungus) Resistance of Paper and Paperboard
D3870	Standard Practice for Establishing Performance Characteristics for Colony Counting Methods in Microbiology (Withdrawn 2000)
D3946	Standard Test Method for Evaluating the Bacteria Resistance of Water-Dilutable Metalworking Fluids (Withdrawn 2004)
D4201	Standard Test Method for Coliphages in Water (Withdrawn 2005)
D4249	Standard Test Method for Enumeration of <i>Candida albicans</i> in Water
D5120	Standard Test Method for Inhibition of Respiration in Microbial Cultures in the Activated Sludge Process
D5244	Standard Practice for Recovery of Enteroviruses from Waters
D5247	Standard Test Method for Determining the Aerobic Biodegradability of Degradable Plastics by Specific Microorganisms (Withdrawn 2004)

Standard Number	Title
D5583	Standard Test Method for Detection and Estimation of Retention of Wood Preservatives by <i>Aspergillus</i> Bioassaying
D5660	Standard Test Method for Assessing the Microbial Detoxification of Chemically Contaminated Water and Soil Using a Toxicity Test with a Luminescent Marine Bacterium
E686	Standard Method for Evaluation of Antimicrobial Agents in Aqueous Metal Working Fluids (Withdrawn 2004)
E1285	Standard Guide for Identification of Bacteriophage Lambda (λ) or Its DNA
E1286	Standard Guide for Identification of Herpes Simplex Virus or its DNA
E1287	Standard Practice for Aseptic Sampling of Biological Materials (Withdrawn 2008)
E1342	Standard Practice for Preservation by Freezing, Freeze-Drying, and Low Temperature Maintenance of Bacteria, Fungi, Protista, Viruses, Genetic Elements, and Animal and Plant Tissues
E1357	Standard Test Method for Determining the Rate of Bioleaching of Iron From Pyrite by <i>Thiobacillus Ferrooxidans</i>

Standard Number	Title
E1427	Standard Guide for Selecting Test Methods to Determine the Effectiveness of Antimicrobial Agents and Other Chemicals for the Prevention, Inactivation and Removal of Biofilm
E1493	Standard Guide for Identification of Bacteriophage M13 or Its DNA
E1531	Standard Practice for Detection of Mycoplasma Contamination of Cell Cultures by Growth on Agarose Medium
E1873	Standard Guide for Detection of Nucleic Acid Sequences by the Polymerase Chain Reaction Technique
E1924	Standard Guide for Conducting Toxicity Tests with Bioluminescent Dinoflagellates
E2048	Standard Guide for Detection of Nucleic Acids of the Mycobacterium Tuberculosis Complex and Other Pathogenic Mycobacteria by the Polymerase Chain Reaction Technique
E2414	Standard Test Method for Quantitative Sporocidal Three-Step Method (TSM) to Determine Sporocidal Efficacy of Liquids, Liquid Sprays, and Vapor or Gases on Contaminated Carrier Surfaces (Withdrawn 2014)
F488	Standard Test Method for On-site Screening of Heterotrophic Bacteria in Water (Withdrawn 2004)

Standard Number	Title
G22	STANDARD PRACTICE FOR DETERMINING RESISTANCE OF PLASTICS TO BACTERIA (WITHDRAWN 2002)
E1533	Standard Practice for Indirect Detection of Mycoplasma in Cell Culture by 4-6-Diamidino-2-2 Phenylindole (DAPI) Staining
E1536	Standard Practice for Detection of Mycoplasma Contamination of Bovine Serum by the Large Volume Method
E2146	Standard Guide for Detection of Nucleic Acid Sequences of the Human Immunodeficiency Virus HIV-1 by the Polymerase Chain Reaction Technique (Withdrawn 2010) Withdrawn Stan