



Designation: F1494 – 23

Standard Terminology Relating to Protective Clothing¹

This standard is issued under the fixed designation F1494; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This standard defines the specialized terms used in standards developed by Committee F23 on Personal Protective Clothing and Equipment.

1.2 Definitions of Terms, which were drafted for use only in a single standard, are also included for convenient reference. Under ASTM rules they may become full definitions in the future, if they are used in additional standards.

1.3 Additional terminology relevant to protective clothing and to the components of protective clothing can be found in Terminologies [D123](#), [D1566](#), and [D4805](#).

1.4 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

[D123 Terminology Relating to Textiles](#)

[D1566 Terminology Relating to Rubber](#)

[D4805 Terminology for Plastics Standards](#) (Withdrawn 2002)³

[F739 Test Method for Permeation of Liquids and Gases Through Protective Clothing Materials Under Conditions of Continuous Contact](#)

[F903 Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Liquids](#)

[F955 Test Method for Evaluating Heat Transfer Through Materials for Protective Clothing Upon Contact with Molten Substances](#)

[F1002 Performance Specification for Protective Clothing and Materials for Use by Workers Exposed to Specific Molten Substances and Related Thermal Hazards](#)

[F1060 Test Method for Evaluation of Conductive and Compressive Heat Resistance \(CCHR\)](#)

[F1154 Practices for Evaluating the Comfort, Fit, Function, and Durability of Protective Ensembles, Ensemble Elements, and Other Components](#)

[F1291 Test Method for Measuring the Thermal Insulation of Clothing Using a Heated Manikin](#)

[F1358 Test Method for Effects of Flame Impingement on Materials Used in Protective Clothing Not Designated Primarily for Flame Resistance](#)

[F1359 Test Method for Liquid Penetration Resistance of Protective Clothing or Protective Ensembles Under a Shower Spray While on a Manikin](#)

[F1383 Test Method for Permeation of Liquids and Gases Through Protective Clothing Materials Under Conditions of Intermittent Contact](#)

[F1407 Test Method for Resistance of Chemical Protective Clothing Materials to Liquid Permeation—Permeation Cup Method](#)

[F1414 Test Method for Measurement of Cut Resistance to Chainsaw in Lower Body \(Legs\) Protective Clothing](#)

[F1449 Guide for Industrial Laundering Care and Maintenance of Flame Resistant or Arc Rated Clothing](#)

[F1458 Test Method for Measurement of Cut Resistance to Chainsaw of Foot Protective Devices](#)

[F1461 Practice for Chemical Protective Clothing Program](#)

[F1494 Terminology Relating to Protective Clothing](#)

[F1670 Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Synthetic Blood](#)

[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](#)

[F1731 Practice for Body Measurements and Sizing of Fire and Rescue Services Uniforms and Other Thermal Hazard Protective Clothing](#)

[F1818 Specification for Foot Protection for Chainsaw Users](#)

[F1819 Test Method for Resistance of Materials Used in Protective Clothing to Penetration by Synthetic Blood Using a Mechanical Pressure Technique](#)

¹ This terminology is under the jurisdiction of ASTM Committee F23 on Personal Protective Clothing and Equipment and is the direct responsibility of Subcommittee F23.91 on Editorial.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ The last approved version of this historical standard is referenced on www.astm.org.

- F1862 Test Method for Resistance of Medical Face Masks to Penetration by Synthetic Blood (Horizontal Projection of Fixed Volume at a Known Velocity)
- F1897 Specification for Leg Protection for Chain Saw Users
- F2061 Practice for Chemical Protective Clothing: Wearing, Care, and Maintenance Instructions
- F2101 Test Method for Evaluating the Bacterial Filtration Efficiency (BFE) of Medical Face Mask Materials, Using a Biological Aerosol of *Staphylococcus aureus*
- F2300 Test Method for Measuring the Performance of Personal Cooling Systems Using Physiological Testing
- F2302 Performance Specification for Labeling Protective Clothing Which Provides Resistance to Incidental Exposures to Heat or Open Flame
- F2407 Specification for Surgical Gowns Intended for Use in Healthcare Facilities
- F2668 Practice for Determining the Physiological Responses of the Wearer to Protective Clothing Ensembles
- F2669 Performance Specification for Protective Clothing Worn by Operators Applying Pesticides
- F2733 Specification for Flame-Resistant Rainwear for Protection Against Flame Hazards
- F2815 Practice for Chemical Permeation Through Protective Clothing Materials: Testing Data Analysis by Use of a Computer Program (Withdrawn 2019)³
- F2894 Test Method for Evaluation of Materials, Protective Clothing, and Equipment for Heat Resistance Using a Hot Air Circulating Oven

3. Terminology

3.1 Definitions:

- acclimation**, *n*—physiological adaptations occurring within an organism, which reduce the strain or enhance endurance of strain, caused by artificially or experimentally induced stressful changes in particular environmental conditions. (F23.60) **F2300, F2668**
- acclimatization**, *n*—physiological adaptations occurring within an organism, which reduce the strain or enhance endurance of strain, caused by stressful changes in the natural environment. (F23.60) **F2300, F2668**
- after-flame time**, *n*—the length of time for which a material continues to flame after the ignition source has been removed. (F23.20) **F1358**
- afterglow**, *n*—a glow in a material after the removal of an external ignition source or after the cessation (natural or induced) of flaming of the material (see also **glow**). (F23.20) **F1358**
- agar**, *n*—a semisolid culture medium used to support the growth of bacteria and other microorganisms. (F23.40) **F1671**
- airborne exposure pathways**, *n*—inhalation routes of exposure to the medical face mask wearer.
- airline respirator (supplied-air respirator, SAR)**, *n*—atmosphere-supplying respirator in which the respirable air is supplied from a hose or breathing tube rather than being carried by the wearer.

air-purifying respirator, *n*—respirator in which ambient air is passed through an air-purifying element by either inhalation or by means of a blower.

analytical detection limit, *n*—a number, expressed in units of concentration (or amount), that describes the lowest concentration level (or amount) that an analyst can determine to be different from an analytical blank (background level). (F23.70) **F1461**

analytical technique, *n*—a procedure whereby the concentration of the test chemical in a collection medium is quantitatively determined. (F23.30) **F739**

anisotropic, *adj*—having different values for a specific property in different directions. (F23.20) **F1358**

armhole, *n*—*in garment construction*, the area of a garment through which the arm passes or into which a sleeve is fitted. (See **armscye**.) (F23.60) **F1731**

armscye, *n*—*in garment construction*, the opening in a garment for the attachment of a fitted sleeve. (See **armhole**.) (F23.60) **F1731**

aseptic, *adj*—sterile, free from viable microbiological contamination. (F23.40) **F1671**

assay, *n*—analysis of a mixture to determine the presence or concentration of a particular component. (F23.40) **F1671**

assay fluid, *n*—a sterile liquid used to wash the test specimen surface to determine microbiological penetration. (F23.40) **F1671**

atmosphere-supplying respirator, ASR, *n*—class of respirators that supply a respirable atmosphere independent of the workplace atmosphere.

DISCUSSION—This class includes airline respirators and self-contained breathing apparatus (SCBA).

authority having jurisdiction, *n*—the organization, office, or individual responsible for approving any equipment, installation, or procedure. (F23.20) **F1818**

back waist length, *n*—*in body measurements*, the vertical distance along the spine from the cervical to the waist. (F23.60) **F1731**

bacterial filtration efficiency (BFE), *n*—the effectiveness of medical face mask material in preventing the passage of aerosolized bacteria; expressed in the percentage of a known quantity that does not pass the medical face mask material at a given aerosol flow rate.

bacteriophage, *n*—a type of virus which infects bacteria. (F23.40) **F1671**

bartack, *n*—*in garment construction*, a reinforcement at points of strain. (F23.60) **F1731**

biological aerosol, *n*—a suspension of particles containing biological agents which have been dispersed in a gas. (F23.40) **F2101**