

NFPA 1970-P2025 Edition

Standard on Protective Ensembles for Structural and Proximity Firefighting, Work Apparel and Open-Circuit Self-Contained Breathing Apparatus (SCBA) for Emergency Services, and Personal Alert Safety Systems (PASS)

TIA Log No.: 1789

Reference: Various paragraphs in Chapters 8 and 9 (re: viral penetration resistance test)

Comment Closing Date: July 24, 2024

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1. *Add a new paragraph 8.1.16.1 to read as follows:*

8.1.16.1 In lieu of testing according to 8.1.16, garment moisture barriers and moisture barrier seams shall be permitted to be tested for resistance to liquid-borne or blood-borne pathogens according to 9.4.5 Viral Penetration Resistance, and shall allow no penetration of the Phi X-174 bacteriophage above the test interpretation threshold for at least 1 hour.

2. *Revise paragraph 9.4.5.1.1 to read as follows:*

9.4.5.1.1 This test method shall apply to garment moisture barrier materials and moisture barrier seams, footwear moisture barrier materials and moisture barrier seams, and glove moisture barrier materials and moisture barrier seams.

3. *Revise paragraph 9.4.5.2 to read as follows:*

9.4.5.2 Samples. Samples for conditioning shall be as specified in 9.4.5.7 for garment materials, 9.4.5.8.2 for glove materials and 9.4.5.9.2 for footwear materials.

4. *Add a new paragraph 9.4.5.3.4(new) to read as follows:*

9.4.5.3.4 Moisture barrier material and moisture barrier seam specimens shall be tested after being twice subjected to the following conditioning:

- (1) Specimens shall first be subjected to the procedure specified in 9.1.2.
- (2) Specimens shall then be conditioned as specified in 9.1.3.
- (3) Specimens shall then be conditioned as specified in 9.1.5.
- (4) Specimens shall then be conditioned at a temperature of 21°C ± 3°C (70°F ± 5°F) and at a relative humidity of 65 percent ± 5 percent for at least 4 hours.

5. *Add a new 9.4.5.7(new) to read as follows:*

9.4.5.7 Specific Requirements for Testing Moisture Barrier Materials and Moisture Barrier Seams.

9.4.5.7.1 Samples for conditioning shall be at least 380 mm (15 in.) square and shall consist of a composite constructed using a layer of 7.5 oz/yd² woven 93 percent meta-aramid, 5 percent para-aramid, 2 percent antistat fiber with a nonfluorinated finish, the moisture barrier, a layer of 7.8 oz/yd² ± 0.3 oz/yd², and a thermal barrier consisting of a woven plain weave face cloth quilted to two layers of aramid nonwoven. Where the sample includes the seam, the moisture barrier layer shall be constructed with a straight center seam that shall extend across the entire 380 mm (15 in.) width of the specimen. The three-layer composite shall be stitched around the entire periphery.

9.4.5.7.2 The moisture barrier layer shall be removed from the three-layer composite samples after all conditioning has been completed and shall become the moisture barrier test specimen.

9.4.5.7.3 Testing shall be as specified in 9.4.5.2 through 9.4.5.6.

Substantiation: During the second draft meeting, the committee removed the testing for viral penetration on garment materials and seams. As an alternative, the testing requirements of AAMI PB70 were added as a replacement since these garments are used in a similar manner as those used for medical gowns. See SR-120 for further explanation. As a result, the same viral testing remained for glove and footwear materials and seams which could be considered a correlation issue between products in the standard. Since all the products currently on the market are already meeting the viral penetration resistance test requirements, there is a sufficient expectation that maintaining this method within the standard as an option will not negatively impact current products, while still keeping the AAMI PB70 requirements to allow for further innovation of materials.

Emergency Nature: The NFPA Standards contains a conflict within the NFPA Standard or within another NFPA Standard.

The standard as written presents a correlation issue between the products within the standard.

Anyone may submit a comment by the closing date indicated above. Please identify the TIA number, state whether you SUPPORT or OPPOSE the TIA along with your comment, and forward to the Secretary, Standards Council. [SUBMIT A COMMENT](#)