



Designation: F2010/F2010M – 18 (Reapproved 2023)

## Standard Test Method for Evaluation of Glove Effects on Wearer Finger Dexterity Using a Modified Pegboard Test<sup>1</sup>

This standard is issued under the fixed designation F2010/F2010M; 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 ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This test method is used for evaluating finger dexterity while wearing gloves.

1.1.1 This test method covers procedures in which the wearer picks up small objects between the thumb and index finger.

1.2 This test method is suitable for evaluating gloves and other forms of hand protection that allow the wearer to pick up small objects between their thumb and index finger.

1.3 This test method does not address all effects of glove use on hand function. Other methods should be considered to evaluate the effects of gloves on grip, tactility, and other hand functions of interest.

NOTE 1—This test method may not apply to all glove types or applications.

1.4 The values stated in SI units or in other units shall be regarded separately as standard. The values stated in each system must be used independently of the other, without combining values in any way.

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.6 *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.*

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee F23 on Personal Protective Clothing and Equipment and is the direct responsibility of Subcommittee F23.60 on Human Factors.

Current edition approved June 1, 2023. Published June 2023. Originally approved in 2000. Last previous edition approved in 2018 as F2010/F2010M – 18. DOI: 10.1520/F2010\_F2010M-18R23.

### 2. Referenced Documents

2.1 *ASTM Standards:*<sup>2</sup>

F1494 Terminology Relating to Protective Clothing

F2961 Test Method for Characterizing Gripping Performance of Gloves Using a Torque Meter

2.2 *BSI Standard:*<sup>3</sup>

BS EN 420 Protective Gloves—General Requirements and Test Methods

### 3. Terminology

3.1 *Definitions:*

3.1.1 *dexterity, n*—a hand function referring to the ability of the individual to manipulate objects with their hands.

3.1.1.1 *Discussion*—Dexterity may be classified as requiring fine motor skills in which relatively small objects are manipulated, or those involving gross motor skills in which relatively large objects are handled.

3.1.2 *glove, n*—an item of protective clothing designed and constructed for protecting the hand and wrist.

3.1.3 *hand function, n*—the relative motion and manipulative abilities of the hand.

3.1.3.1 *Discussion*—In this test method, the effect of gloves on a specific hand function, dexterity, is evaluated.

3.1.4 *protective clothing, n*—a product which is designed and constructed for the purpose of isolating parts of the body from a potential hazard.

3.1.4.1 *Discussion*—In this test method, gloves are evaluated to determine the effect on the hand function of the wearer.

3.1.5 For definitions of other protective clothing-related terms used in this test method, refer to Terminology F1494.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from British Standards Institution (BSI), 389 Chiswick High Rd., London W4 4AL, U.K., <http://www.bsigroup.com>.