

Standard Specification for Radiation Attenuating Protective Gloves¹

This standard is issued under the fixed designation D7866; 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.

Note—Subsection 1.1 was corrected editorially and the year date was changed on December 1, 2014.

1. Scope

- 1.1 To describe the requirements for packaged protective gloves with radiation attenuating properties intended to protect the operator or other persons from unnecessary exposure to radiation during radiological procedures by providing an attenuating barrier to radiation. Minimum attenuation values will be defined.
- 1.2 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 and health practices and determine the applicability of regulatory limitations prior to use.

2. Referenced Documents

2.1 ASTM Standards:²

F2547 Test Method for Determining the Attenuation Properties in a Primary X-ray Beam of Materials Used to Protect Against Radiation Generated During the Use of X-ray Equipment

3. Classification

3.1 Gloves compounded from natural rubber latex, rubber cement or synthetic polymers.

4. Materials and Manufacture

4.1 Any natural or synthetic compound with lead, bismuth, tungsten, barium, or other metallic content that permits the glove to meet the requirements of this specification.

5. Attenuation Requirements

- 5.1 The radiation attenuation of the glove shall be determined by using Test Method F2547.
 - 5.1.1 Sample size shall be 13 gloves.
- 5.1.2 A 5 by 5 cm square sample shall be taken from the thinnest portion of the glove (either the palm, cuff, or finger).
- 5.2 A radiation attenuation glove must attenuate per the minimum values shown in the following table at each kVp level:

60 kVp	80 kVp	100 kVp	120 kVp
29 %	22 %	18 %	15 %

6. Labeling Requirements

- 6.1 The final glove packaging shall be labeled as a Radiation Attenuating Protective Glove.
- 6.2 The average attenuation values for the glove shall be included on the glove packaging.

7. Keywords

7.1 glove; radiation attenuation; x-ray

ASTM International takes no position respecting the validity of any patent rights asserted in connection with any item mentioned in this standard. Users of this standard are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, are entirely their own responsibility.

This standard is subject to revision at any time by the responsible technical committee and must be reviewed every five years and if not revised, either reapproved or withdrawn. Your comments are invited either for revision of this standard or for additional standards and should be addressed to ASTM International Headquarters. Your comments will receive careful consideration at a meeting of the responsible technical committee, which you may attend. If you feel that your comments have not received a fair hearing you should make your views known to the ASTM Committee on Standards, at the address shown below.

This standard is copyrighted by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959, United States. Individual reprints (single or multiple copies) of this standard may be obtained by contacting ASTM at the above address or at 610-832-9585 (phone), 610-832-9555 (fax), or service@astm.org (e-mail); or through the ASTM website (www.astm.org). Permission rights to photocopy the standard may also be secured from the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923, Tel: (978) 646-2600; http://www.copyright.com/

¹ This specification is under the jurisdiction of ASTM Committee D11 on Rubber and is the direct responsibility of Subcommittee D11.40 on Consumer Rubber Products.

Current edition approved Dec. 1, 2014. Published December 2014. Originally approved in 2014. Last previous edition approved in 2014 as D7866 – 14. DOI: 10.1520/D7866-14A.

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.