

INCH-POUND

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SUPERSEDING  
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COMMERCIAL ITEM DESCRIPTION

SHOES, CONDUCTIVE

The General Services Administration has authorized the use of this commercial item description in preference to MIL-S-3794.

Abstract. This document covers one type of conductive shoes in the designs specified herein. Conductive shoes are intended to be worn by personnel in ordnance or ammunition plants, or other places where the accumulation of static electricity in the body of the wearer constitutes a hazard because of the possibility of its sudden discharge in the form of a spark that may ignite sensitive explosives, gas mixtures or flammable vapors. The effectiveness of the shoes is dependent on a low-resistance conductive path, sufficiently conductive floors, and on the use of cotton socks or stockings that are sufficiently conductive when in contact with the foot of the wearer.

Salient characteristics. The style of the shoe shall be plain toe blucher oxford of welt construction. The upper shall be dark brown grainout cattlehide with vamp and quarter linings. The leather used for the upper shall be free from defects and damages as described herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Defense Personnel Support Center, Clothing and Textiles Directorate, Attn: DPSC-FSSD, 2800 South 20th Street, Philadelphia, PA 19101-8419, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A

FSC 8430

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

The shoes shall have steel safety box toes, completely coated with a non-ferrous material, and shall conform to class 75 of ANSI Z41.1 for Impact and Compression, American National Standards for Personal Protection-Protective Footwear. Permanent labeling or marking is required in each shoe as per Section 5 of ANSI Z41.1 Class 75. Steel or fiberglass shanks, smooth tread rubber soles and heels and conductive sock linings are also required. The shoes shall have no metal parts except for the box toes, shanks, eyelets, assembly tacks or staples, and copper contact nails used to create a conductive path. Heels shall be attached without the use of nails. Components and materials used to make the shoes and the path constructed between the sock lining and the sole and heel shall be adequately conductive for the finished shoes to provide resistance to a maximum of 250,000 ohms (see requirements for testing). The eyelets shall be invisible, plain type, made of aluminum that is 0.014 ( $\pm$  0.0015) inch thick when tested as specified in Component and material inspection. The eyelets shall conform to finished nonsparking requirements for exposed metal eyelets. The outside diameter of the flange shall be 0.290 inch minimum and 0.305 inch maximum, the overall length before setting shall be 0.135 inch minimum and 0.150 inch maximum, and the diameter of the hole before setting shall be 0.120 inch minimum and 0.126 maximum when tested as specified in Component and material inspection. After fabrication, the eyelets shall be anodized. The manufacturer shall submit a certificate of compliance for the resistance requirement.

The shoes shall be constructed in accordance with standard industry practice and correctly mated.

The shoes shall be in the following industry standard sizes and widths:

4 to 15 in whole and half sizes in 5 widths (extra narrow to extra wide).

Shoes shall be furnished with brown nylon or cotton laces of the appropriate length for each size.

Workmanship. After completion, the finished shoes shall be thoroughly cleaned, and all loose thread, lint, and foreign matter removed.

Regulatory requirements. The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

Quality assurance

Certification. The contractor shall certify that the product offered meets the salient characteristics of this description and that the product conforms to the producer's own drawings,

specifications, standards and quality assurance practices. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract. Reliance on contractor quality assurance systems shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract.

Certificate of compliance. Unless otherwise specified in the contract or purchase order, certificates of compliance may be submitted on all components.

Component and material inspection. In accordance with Responsibility for inspection, components and materials shall be inspected and tested in accordance with all the requirements referenced herein. The manufacturer shall submit a certificate of compliance for the resistance requirement, including a test report.

Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the commercial item description where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

Testing. Each finished shoe shall be tested for electrical resistance on a Vibrotester Meg-check Model 2269 of Associated Research Inc., 8221 North Kimball Avenue, Skokie, IL 60076, or an equivalent instrument. Shoes exceeding the maximum allowable resistance are not acceptable.

Visual examination

Critical defects. The contractor shall perform 100 percent inspection of the finished shoes for the critical defects listed below. Any shoe found with one or more of the defects shall result in rejection.

- a. Steel toe missing.
- b. Protruding part of tack or nail forward of heel breastline.

**Defects.** The shoes shall be examined for the defects listed below. The lot size shall be expressed in units of one finished shoe and selection shall be by pairs. During the manufacturing process, the manufacturer shall remove parts with defective materials and workmanship damages and replace with non-defective components.

- a. Not properly mated, i.e., not left and right of same size
  - b. Leather damages (scratches, slaughter cuts, cuts on grain surface, pronounced veins, etc.)
  - c. Torn or excessively full linings
  - d. Materials not as specified
  - e. Construction not in accordance with standard industry practice
  - f. Broken upper stitches not repaired
  - g. Separation of any bottom component
  - h. Protruding tack, staple or nail in heel area
  - i. ANSI label missing 1/
  - j. Grinning seams
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- a. Variation in color
  - b. Any spot or stain
  - c. Excessively loose or tight thread tension
  - d. Any open seam
  - e. Gauge of stitching irregular
  - f. Heels or soles not finished square
  - g. Crooked heels
  - h. Strained seams
  - i. Label incomplete, not legible
  - j. Upper leather defects (scars, veins, fat wrinkles, pipey, stretchy, excessive break, etc.)
  - k. Rolled or curled counter
  - l. Any shoes not packaged in accordance with the contract or purchase

1/ When this defect is found, the defect shall be scored and the item shall be rejected, replaced or excluded from the lot.

**Preservation, packing, and marking.** The preservation, packing, and marking shall be as specified in the contract or purchase order.

**Special marking.** Instruction sheet or tag shall be furnished with each pair of shoes to inform the user of the following requirements:

- a. Wear shoes with cotton socks for best conductivity.
- b. Test shoes for required conductivity when issued.
- c. Test shoes at least once every month thereafter to ensure electrical resistance does not exceed the allowable limit.

- d. If excessive resistance is indicated, clean and retest shoes. Do not use shoes if not within the allowable limit for electrical resistance.

Label/tag. Each item shall be individually bar coded with the type VIII, class 17 label/tag of DDD-L-20. This label/tag shall be located so that it is completely visible on the items, and so that it causes no damage to the items.

Source of Government documents. Copies of military and Federal documents are available from:

Standardization Documents Order Desk  
Bldg. 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

Sources of non-Government documents.

ANSI Z41.1-Class 75 for Impact and Compression, American National Standards for Personal Protection-Protective Footwear

(Applications for copies should be addressed to American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002.)

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