

INCH-POUND

A-A-55092

16 November 1992

COMMERCIAL ITEM DESCRIPTION

BAG, CLOTHING, WATERPROOF

The General Services Administration has authorized the use of this Commercial Item Description in preference to MIL-B-3108.

Abstract. This document covers a waterproof clothing bag. This item is used as a carrying bag providing waterproof protection for rations, extra clothing, personal effects, and the intermediate cold and extreme cold sleeping bags. It is not constructed to withstand rough use or handling. Should the area of operation or assigned function involve rough handling and waterproofing is required, the waterproof bag should be placed inside a bag of more rugged construction such as the duffel bag to protect the waterproof bag from damage that would result in leakage.

Salient Characteristics. The bag shall conform to the design shown in Figure 2. The coated side of the cloth shall be on the inside of the bag. The bag shall be constructed from uncured coated cloth. All joining seams shall be cemented. The seam shall be single lapped a minimum of 1 inch in width and rolled after cementing. Pleats due to working in of excess material in the seam joining the bottom to the body of the bag are permissible. After assembly, the bag shall be thoroughly cured. In addition, after assembly, the cement shall not extend more than 1 inch on either side of the seam. The hem shall be formed

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 8465

DISTRIBUTION STATEMENT A.

Approved for public release;
distribution is unlimited.

A-A-55092

by turning the top of the bag 1/2 inch and firmly cementing. The finished hem shall measure $1/2 \pm 1/4$ inch. The tie cord shall be made of braid, cotton or polyester. The ends of the cotton tie cord shall be tipped or resin treated. The ends of the polyester tie cord shall be evenly fused to prevent ravelling.

Material.

Recycled Material. It is encouraged that recycled material be used when practical as long as it meets the requirements of this commercial item description.

Base Cloth. The base cloth shall be either of the following cloths:

a. Cloth, parachute, nylon conforming to type I of MIL-C-7350 in color Camouflage Green 483, except that only weight and texture requirements shall apply.

b. Cloth, nylon, plain weave, semidull or bright filament nylon, 200 to 220 denier, 40 by 40 texture minimum, 2.2 ± 0.2 ounces per square yard, color Camouflage Green 483.

Coating Compound. The compound for coating the base cloth shall be synthetic rubber. The use of the natural rubber is prohibited. The color of the coating compound shall be black.

Coated Cloth. The coating compound shall be applied to only one side of the base cloth and shall be cured after assembly into the bag. The coated side of the cloth shall be dusted with the dusting material specified below to produce a uniform dull finish. The cured coated cloth shall show no softness or tackiness for the coating when tested for the state of cure as specified in this document.

Dusting Material. The dusting material shall be whiting, talc, or other finely divided mineral material which does not support mildew growth. The use of asbestos-containing material is prohibited.

Cement and Sealing Compound. The cement and sealing compound shall be of synthetic rubber base. It shall be compounded to be heat cured and shall have the same curing characteristics as the coating compound specified above and shall meet the seam performance requirements below. The color of the cement, when dry, shall approximate that of the coated cloth.

Braid, Cotton or Polyester. The braid for the tie cord shall be cotton conforming to type III, class 4 of MIL-B-371 except that the braid need not be water repellent treated. As an alternate, the braid may be made of polyester material, provided the ends

are fused to prevent raveling and the braid meets the requirements of type III, class 4 of MIL-B-371 braid. The color shall be Camouflage Green 483.

Thread. The thread used for bartacking shall conform to type I or type II, class 1, size B, Camouflage Green 483 of V-T-285. The thread shall show good fastness to light.

Marking. Each bag shall have an identification and instruction marking located on the outside of the bag adjacent to the tie cord (see Figure 2). The markings shall conform to type III or IV, class 5 of DDD-L-20. The instruction marking size and content shall conform to figure 1. The instruction marking shall be printed below the identification marking.

Sizes and Measurements. The finished bag shall be $30 \pm 1/2$ inches in height and $50-1/2 \pm 1$ inches in circumference.

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

Product Demonstration Model. When required, offerers shall submit samples of their intended production. The Product Demonstration Model will consist of units independently developed. Product Demonstration Models will be analyzed and evaluated by the government. Evaluation criteria and basis for award are contained in the solicitation. Product Demonstration Models will be retained by the government. One (1) Product Demonstration Model approved by DPSC under the resultant contract will serve as a manufacturing standard for the corresponding production items delivered under this contract. Offerers are advised that the Product Demonstration Model does not relieve the successful offerer of his responsibility to perform in accordance with the Commercial Item Description specified above.

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 QA 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.

Examination. Bag lots shall be inspected in accordance with "Sampling Procedures and Tables for Inspection by Attributes", ANSI/ASQC Z1.4, published by the American Society for Quality Control.

Visual Examination. The bags shall be examined for the defects listed below. The lot size shall be expressed in units of bags. The sample unit is one bag. The inspection level shall be II and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 6.5.

Defects. The bags shall be examined for the following defects: design not as specified; coated side of fabric on outside of bag; any part of bag spliced, i.e., made with more than one piece of cloth; cement extending more than 1 inch beyond raw edge of top hem or extending more than 1 inch on either side of side or bottom seams; improper width of side or bottom seam at any point; any portion of side or bottom seam unsealed or not securely cemented (Condition is permissible within bottom seam pleats provided it does not exceed 1/16 inch in diameter, has no visible opening through the coated side, and at least 1/4 inch of cured overlap exists.); any unsealed area on cemented hem; tie cord missing, cut, torn, frayed, or spliced; tie cord reinforcing patch missing; ends of tie cord not tipped or resin coated; polyester cord ends not smoothly fused to prevent ravelling; bartacks not waterproofed; stitching on bartacks loose, skipped, or broken; tie cord bartack not positioned vertically on seam; any tie cord bartack missing; any hole, cut, tear, color not as specified; any spot or stain (outside); any peeled or blistered area; fabric or coating defects; coating is tacky; any visual area where coating has been scraped from base cloth; any required component omitted or not as specified; any part of body adjacent to seam pleated or badly creased; location of any component not as shown on Figure 2; thread ends not removed; any needle chew, mend or patch; peeled or blistered area on any seam; any drill hole in fabric; marking missing, incorrect, illegible or misplaced; dusting powder omitted or improperly applied causing blocking; more than 12 defects repaired; any defect repair exceeding 3/4 inch in length or width; any repair area not dusted; any repaired area showing evidence of separation, softening, or tackiness when wetting with toluene or naphtha (NOTE: To determine whether the patched bag area is sufficiently cured, it shall be wetted with toluene or naphtha and rubbed with the index finger. There shall be no evidence of separation, softening, or tackiness.); measurement of item not as specified.

Dimensional Examination. The finished bag shall conform to the dimensions specified. Any dimension that is not within the established tolerance shall be classified as a defect. The sample unit shall be one bag; the inspection level shall be S-3 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

Examination	Defect
Height of bag	Less than 29-1/2 inches More than 30-1/2 inches
Circumference of bag <u>1/</u>	Less than 49-1/2 inches More than 51-1/2 inches
Top edge of bag	Hem less than 1/4 inch or more than 3/4 inch in width
Tie cord	Less than 51 inches when measured as described in <u>2/</u> Ends uneven by more than 3 inches Located less than 4 inches or more than 5 inches from top edge of bag

1/ The circumference of the bag shall be measured by laying the bag out smooth and flat on a table and then measuring the width of the bag. The measurement is one half the circumference. Multiply this measurement by two for the full circumference measurement.

2/ The tie cord shall be measured in the following manner: The bag shall be laid out smooth and flat on a clean table with the tie cords fully extended. A weighted clamp weighing approximately 4 ounces shall be securely attached to one end of the tie cord. The tie cord shall be fully extended by grasping the other end of the tie cord with enough force to move the weighted clamp very slowly along the surface of the table. The tie cord shall be straight and parallel to the surface of the table while measuring when fully extended.

Packaging Examination. The fully packaged shipping containers shall be examined in accordance with defects listed below. The lot size shall be the number of shipping containers in the inspection lot. The inspection level shall be S-2 and AQL, expressed in terms of defects per hundred units, shall be 2.5.

EXAMINE	DEFECT
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, or method of application
Materials	Any component missing, damaged, or not as specified

A-A-55092

EXAMINE	DEFECT
Workmanship	Inadequate application of components, such as: incomplete closure of container flaps, loose strapping, improper taping, or inadequate stapling
Content	Number of items in container is more or less than required NSN shown on one or more items not as specified on shipping container
Palletization	Length, width, or height exceeds specified maximum requirements Pallet type not as specified Load not bonded as specified

End Item Performance Testing. The end items shall be tested for the characteristics listed in Table I and the sections below.

Table I. End Item Performance Testing

Characteristic	Requirement	Test Method (FED-STD-191 or as listed)	No. Determinations per sample unit	Results reported numerically to nearest:
Weight, ounces per square yard	7.0 minimum 9.0 maximum	5041	5	0.1 oz.
Breaking strength, pounds:				
Warp	125	5100	5	1 lb.
Filling	125	5100	5	1 lb.
Tearing strength, grams:				
Warp	1200	ASTM	5	10 grams
Filling	1200	D 1424	5	10 grams
Stiffness, centimeters (warp only):				
At 70°F	10 maximum	5204	5	0.1 cm
At 0°F	10 maximum	5204	5	0.1 cm
Blocking	No. 2 maximum	5872	1	scale reading

Low Temperature Resistance Test. A 4 by 4 inch test specimen shall be exposed at a temperature of minus 20°F for 5 hours as specified in Method 5874 of FED-STD-191 and tested for resistance to cracking and flaking only. Any cracking or flaking shall be considered a test failure. There shall be 1 determination per sample unit. The results shall be reported as "Pass" or "Fail". A "Pass" result is required.

Weather Resistance Test. A 4 by 4 inch test specimen shall be subjected to the weather resistance test specified in Method 5804 of FED-STD-191. The coated side of the test specimen shall be exposed for a period of 100 hours with filters. After exposure, the test specimen shall be examined only to determine if the coating has become stiff, brittle, soft, or tacky. If the test specimen becomes stiff, brittle, soft, or tacky, it shall be considered a test failure. There shall be 1 determination per sample unit. The results shall be reported as "Pass" or "Fail". A "Pass" result is required.

A-A-55092

Strength of Coating Test. The test specimen shall be tested as specified in Method 5972 of FED-STD-191 except that the test for loss in water resistance does not apply. The test specimen shall be examined for any break or crack in the coating. Any break or crack in the coating shall be considered a test failure. There shall be 1 determination per sample unit. The results shall be reported as "Pass" or "Fail". A "Pass" result is required.

Hydrostatic Resistance Test. The hydrostatic resistance test shall be conducted as specified in Method 5512 of FED-STD-191. The results shall be reported as the average of the highest four specimens of the five tested per sample unit. Water pressure shall be applied to the coated side of the fabric only. The results shall be reported to the nearest 1 psi. A minimum result of 150 psi is required.

Hydrostatic Resistance After Resistance To Low Temperature Test. Five test specimens that have been subjected to the low temperature resistance test (described above) shall be tested for hydrostatic resistance (described above). The results shall be reported to the nearest 1 psi. A minimum result of 100 psi is required.

Hydrostatic Resistance After Weather Resistance Test. Five test specimens that have been subjected to the weather resistance test (described above) shall be tested for hydrostatic resistance (described above). The results shall be reported to the nearest 1 psi. A minimum result of 100 psi is required.

Hydrostatic Resistance After Strength Of Coating Test. Five test specimens that have been subjected to the strength of coating test (described above) shall be tested for hydrostatic resistance (described above). The results shall be reported to the nearest 1 psi. A minimum result of 100 psi is required.

Hydrostatic Resistance After Solvent Resistance Test. Five 10 by 10 inch test specimens shall be attached (with the coated side up) to the opening of five 600-ml beakers with rubber bands in such a manner that a pocket capable of containing 100 ml is formed. One hundred milliliters of reagent grade naphtha shall be poured into each pocket, with the naphtha contacting the coated surface, and held in this position for 15 minutes. At the end of this time, the naphtha shall be poured off and the specimens shall be removed and allowed to dry flat, at room temperature for 5 minutes. Test for hydrostatic resistance shall be made as specified above. The results shall be reported to the nearest 1 psi. A minimum result of 100 psi is required.

Adhesion Of Coating (Dry and Wet) Test. The adhesion of coating shall be determined by Method 5970 of FED-STD-191. The original dry adhesion separation shall be stopped after a 3 inch separation. The specimens shall be immersed in distilled water at room temperature for 24 hours, blotted dry, and the wet

A-A-55092

adhesion shall be determined on the remainder of the specimen. There shall be 3 determinations per sample unit. The results shall be reported to the nearest 0.1 lb. per 2 inch width. A minimum result of 8.0 lb. per 2 inch width is required for the dry test. A minimum result of 7.0 lb. per 2 inch width is required for the wet test.

Accelerated Aging Test. One test specimen shall be subjected to the accelerated aging test specified in Method 5852 of FED-STD-191. After testing, the specimen shall be examined to determine if it has become stiff and brittle or soft and tacky. Breaking strength tests are not applicable. If the test specimen becomes stiff and brittle or soft and tacky, it shall be considered a test failure. The results shall be reported as "Pass" or "Fail". A "Pass" result is required.

Stiffness After Heat Treatment Test. Specimens that have been tested for stiffness at 70°F shall be placed in a well ventilated oven at 220°F ± 5°F for 5 hours, then removed and conditioned at 70°F ± 5°F and 65 ± 5 percent relative humidity for 5 hours and the stiffness tested, in only the warp direction, in accordance with Method 5204 of FED-STD-191. There shall be 5 determinations per sample unit. The results shall be reported to the nearest 0.1 cm. A maximum result no greater than 12 cm is required.

Abrasion Resistance Test. The abrasion resistance shall be determined as specified in Method 5304 of FED-STD-191 with the following exceptions:

- a. The coated side of the fabric (only) shall be tested using fine emery cloth as the abradant.
- b. Three test specimens shall be subjected to 25 continuous cycles under a tension of 6 pounds and a pressure of 3 pounds.
- c. Breaking strength determinations shall not be made.
- d. The test specimens shall be abraded in the warp direction only and after abrading there shall be no visual loose fibers on the base fabric exposed in the center 1 inch of the abraded portion. All specimens shall pass.

Color. The color of the finished cloth shall match the standard sample when viewed under filtered tungsten lamps that approximate artificial daylight and that have a correlated color temperature of 7500 ± 200 K, with illumination of 100 ± 20 foot candles, and shall be a good match to the standard sample under incandescent lamplight at 2300 ± 200 K. The uncoated side of the cured coated cloth shall match the standard sample in color, shade, and finish. There shall be 1 determination per sample unit. The results shall be reported as "Pass" or "Fail". A "Pass" result is required.

A-A-55092

Hydrostatic Resistance Of Side And Bottom Seams And Bartacked Side Seam. The side and bottom seam, and bartacked side seam hydrostatic resistance shall be as specified in Method 5514 of FED-STD-191 with the following exceptions:

a. The bag shall be tested without cutting and one test shall be made on the side seam, one where the tie cord is bartacked to the bag, and two in the peripheral bottom seam.

b. When testing the seam, the seam shall be positioned in the center of the 4-1/2 inch diameter test area with the outside of the seam (uncoated side of the bag) contacting the water.

c. When testing the bartacked tie cord, the bartack shall be positioned in the center of the 4-1/2 inch diameter test area with the water contacting the uncoated side of the bag.

d. The water pressure shall be raised to 25 centimeters and held for 1 minute.

e. Leakage shall be defined as the appearance of water in any portion of the 4-1/2 inch diameter test area.

All determinations shall be made on one bag in the locations specified above. There shall be 4 determinations per sample unit. The results shall be reported as "Pass" or "Fail". A failure of the bag is defined as a hydrostatic failure in two or more of the four determinations.

Seam Adhesion Test. The seam adhesion test shall be conducted as specified in Method 5960 of FED-STD-191 except that tests shall be made on a finished bag and three determinations shall be made on each bag. One determination shall be made on the side seam and two on the peripheral bottom seam. The results shall be reported to the nearest 0.1 lb. per inch. A minimum result of 4 pounds per inch is required.

Seam Adhesion After Water Immersion Test. The seam adhesion test shall be conducted as specified in Method 5964 of FED-STD-191 except that the tests shall be made on a finished bag and three determinations shall be made on the bag. One determination shall be made on the side seam and two on the bottom seam. The results shall be reported to the nearest 0.1 lb. per inch. A minimum result of 3 pounds per inch is required.

Seam Blocking Test. The bag shall be tested for resistance to blocking by Method 5872 of FED-STD-191 except that the test specimen shall be prepared by folding the bag so that the sealed seam surface is superimposed with the coated side of the fabric on the inside of the bag and with the seam positioned in the center of the glass plate. There shall be 1 determination per sample unit. The results shall be reported to the nearest scale reading. A maximum result no greater than No. 3 is required.

State Of Cure Testing. The sample unit for this test shall be one completed bag. The inspection level shall be level II. The bag shall be spot tested on the coated side of the coated cloth with three drops of either toluene or naphtha (type I, grade B of TT-N-97) and immediately rubbed with the index finger and examined. The examination shall show no evidence of softness or tackiness of the coating. Tests shall be performed at ten locations on the bag as follows:

a. Eight locations on the side of the bag. The bag shall be laid flat on a table with the seam of the bag along one lengthwise fold. Spot tests shall then be conducted at each of four locations approximately 8 inches and 22 inches from the hem of the bag and 6 inches from each fold. The flat bag shall then be turned over and spot tested on the reverse side at four similar locations.

b. Two separate locations on the bottom of the bag. The bottom of the bag shall be laid flat on a table. Spot tests shall be conducted at two separate locations 4 ± 1 inches from the bottom seam and on a line through the center of the circular area of the bag bottom.

If softness or tackiness is evident at any of the ten locations on the bag, the coated fabric shall be tested for hydrostatic resistance after solvent resistance as described above, except that only one specimen from an area immediately adjacent to any soft or tacky spot test shall be tested from any one bag, and any failure shall reject the lot.

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

PACKAGING

Overseas:

Packaging. Each bag shall be folded to approximately 12 by 15 inches.

Packing. Thirty bags shall be packed in a fiberboard box conforming to style RSC-L, grade 275 of PPP-B-636. The inside dimensions of the box shall be approximately 15 inches in length, 12-1/2 inches in width and 8 inches in depth. The box shall be closed in accordance with the appendix of PPP-B-636.

Palletization. Boxes shall be palletized on a 4-way entry pallet in accordance with load type Ia of MIL-STD-147. Each prepared load shall be bonded with primary and secondary straps in accordance with bonding means C and D or film bonding means F or G. Pallet pattern shall be number 96 in accordance with the appendix of MIL-STD-147.

Marking. Marking shall be in accordance with MIL-STD-129.

Domestic:

Packaging, Packing, Palletization and Marking. Packaging, packing, palletization and marking shall be in accordance with ASTM D 3951.

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

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 Nongovernment Documents.

ANSI/ASQC Z1.4 - Sampling Procedures and Tables For Inspection
By Attributes

(Applications for copies should be addressed to American National Standards Institute, 1430 Broadway, New York, NY 10018-3308.)

ASTM-D 3951 - Standard Practice for Commercial Packaging

(Applications for copies should be addressed to American Society For Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

Custodians:

Army - GL
Navy - NU
Air Force - 99

Civil Agency Coordinating
Activity:
GSA - FSS

Review Activities:

Army - MD
Air Force - 82, 45

Preparing Activity:
DLA - CT

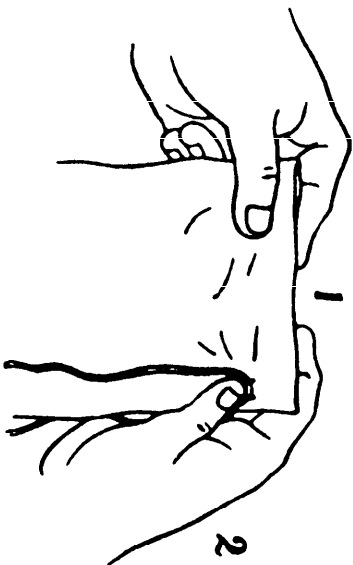
User Activities:

Navy - MC

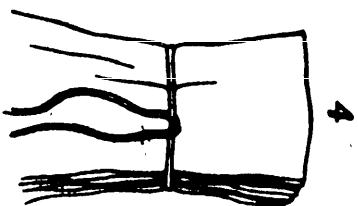
Project No. 8465-0121

TO GET THE TIGHTEST CLOSURE

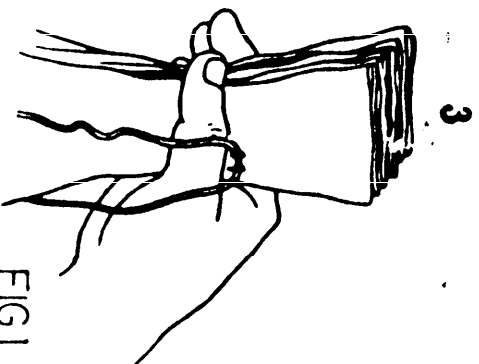
- 1 FLATTEN MOUTH OF BAG.
- 2 GRASP THE BAG WHERE THE TIE CORDS ARE ATTACHED TO THE BAG IN THE PALM OF YOUR HAND.



- 4 WRAP FOLDED SECTION WITH AT LEAST ONE WRAP OF THE CORD AND TIGHTLY SECURE WITH A CROSS TIE KNOT.



- 3 FOLD FLAT IN 6 TO 8 FLAT FOLDED SECTIONS.



- 5 BEND OVER TOP THREE INCHES OF FOLDED BAG. WRAP AT LEAST ONE COMPLETE WRAP OF THE CORD AROUND FOLDED BAG AND SECURELY TIE WITH BOW KNOT.

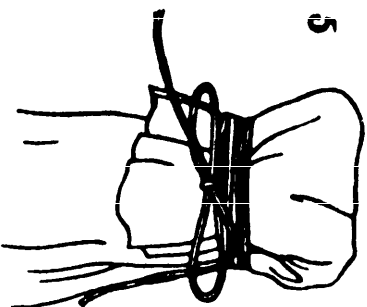


FIG.1 BAG, CLOTHING, WATERPROOF

A-A-55092

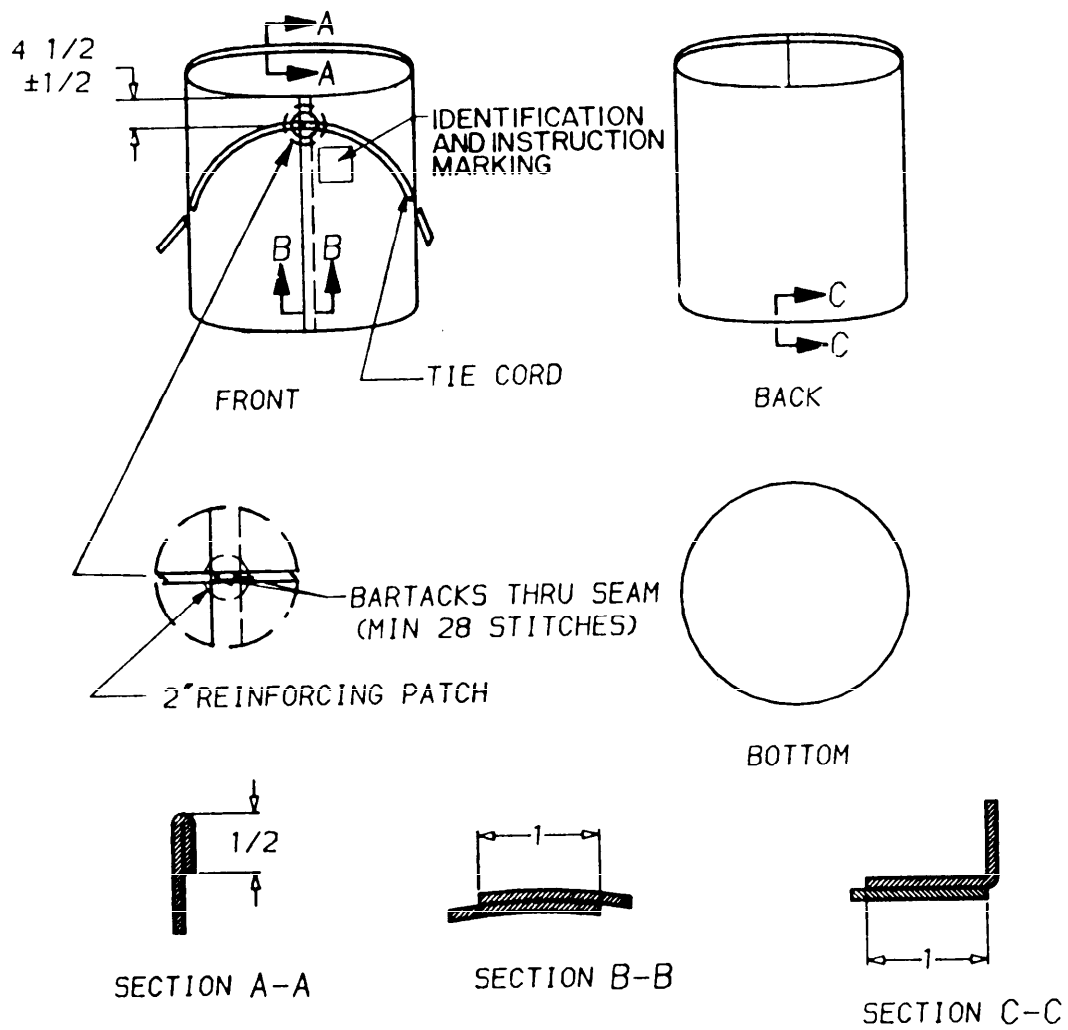


Figure 2. Bag, Clothing, Waterproof

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
A-A-55092

2. DOCUMENT DATE (YYMMDD)
16 NOVEMBER 1992

3. DOCUMENT TITLE
BAG, CLOTHING, WATERPROOF

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

7. DATE SUBMITTED
(YYMMDD)

(1) Commercial
(2) AUTOVON
(If applicable)

8. PREPARING ACTIVITY

a. NAME

Defense Personnel Support Center
ATTN: DPSC-FSSD (12-3-D)

b. TELEPHONE (Include Area Code)

(1) Commercial
215-737-8105

(2) AUTOVON
444-8105

c. ADDRESS (Include Zip Code)

2800 South 20th Street
P.O. Box 8419
Philadelphia, PA 19101-8419

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:
Defense Quality and Standardization Office
5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466
Telephone (703) 756-2340 AUTOVON 289-2340