

MIL-B-844L  
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SUPERSEDING  
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MILITARY SPECIFICATION

BLANKETS, BED, WOOL, SHRINK RESISTANT AND MOTHEPROOFED

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers wool blankets.

1.2 Classification. Wool blankets shall be of the following types, grades, sizes, and colors as specified (see 6.2):

Type I - Twill weave

Grade A - 100 percent new wool

Size 3 - 66 by 90 inches

Color - Olive Green 118

Grade B - New wool and reprocessed wool blend

Size 1 - 60 by 84 inches

Color - Gray 3119

Size 2 - 66 by 84 inches

Color - Olive Green 118

Size 3 - 66 by 90 inches

Color - Olive Green 118

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Natick Research and Development Laboratories, Natick, MA 01760 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 7210

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Type II - Double woven

Grade A - 100 percent new wool  
 Size 3 - 66 by 90 inches  
 Color - White with Maroon stripes

Type III - Plain weave

Grade C - 100 percent new wool  
 Size 4 - 50 by 78 inches  
 Color - Tan 1559

## \* 2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents, of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

## SPECIFICATIONS

## FEDERAL

V-T-276 - Thread, Cotton  
 UU-P-268 - Paper, Kraft, Wrapping  
 DDD-L-20 - Label: For Clothing, Equipage and Tentage  
 (General Use)  
 PPP-B-636 - Boxes, Shipping, Fiberboard

## MILITARY

MIL-C-43424 - Clothing, Combat Type, Contour Packaging and Packing Of  
 MIL-C-43665 - Cloth Wool: Mothproofing Treatment Of

## STANDARDS

## FEDERAL

FED-STD-191 - Textile Test Methods  
 FED-STD-751 - Stitches, Seams, and Stitchings

## MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection  
 by Attributes  
 MIL-STD-129 - Marking for Shipment and Storage  
 MIL-STD-1188 - Commercial Packaging of Supplies and Equipment  
 MS 16686 - Medical Services Symbol

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(Copies of specifications, standards, drawings, and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

#### LAWS AND REGULATIONS

Code of Federal Regulations, Title 16, Part 300 - Rules and Regulations Under the Wool Products Labeling Act of 1939

(Application for copies should be addressed to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.)

#### U.S. DEPARTMENT OF AGRICULTURE

#### Methods of Test for Grade of Wool

(Application for copies should be addressed to the U.S. Department of Agriculture, Agricultural Marketing Service, Washington, DC 20402.)

### 3. REQUIREMENTS

3.1 Standard sample. The finished blanket shall match the standard sample for shade and shall be equal to or better than the standard sample with respect to all characteristics for which the standard sample is referenced (see 6.3).

### 3.2 Material.

3.2.1 Wool. References, throughout this document, to reprocessed wool and reused wool (see 1.2, 3 2.1.1, 3.2.1.2 and 3.2.1.3) are defined as follows:

(a) The term "reprocessed wool" means the resulting fiber when wool has been woven or felted into a wool product which, without ever having been utilized in any way by the ultimate consumer, subsequently has been made into a fibrous state.

(b) The term "reused wool" means the resulting fiber when wool or reprocessed wool has been spun, woven, knitted, or felted into a wool product which, after having been used in any way by the ultimate consumer, subsequently has been made into a fibrous state.

3.2.1.1 Grade A. The stock used for the warp and filling yarns shall be of fleece or pulled sheep's wool or both, of the required grade. Noils, card fly, card stripping, reused wool, reprocessed wool, fiber obtained from garnetted sweater clips and hard ends, or similar waste will not be acceptable. The wool grade shall be as follows:

Not more than 50 percent	Not lower than 44's Not finer than 60's	50 percent not lower than 50's
Not less than 50 percent	Not lower than 56's Not finer than 60's	

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3.2.1.2 Grade B. The stock for the warp and filling yarns shall be composed of U.S. Standard grades of wool as follows:

Not less than 65 percent (fleece or pulled wool or both)	Not lower than 54's Not finer than 60's
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Not more than 35 percent (reprocessed wool)	Not lower than 48's Not finer than 60's
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3.2.1.3 Grade C. The stock used for the warp and filling yarns shall be of fleece or pulled sheep's wool or both, not lower in grade than 56's nor finer than 62's. Noils, card fly, card stripping, reused wool, reprocessed wool, fiber obtained from garnetted sweater clips and hard ends, or similar waste will not be acceptable.

3.2.1.4 Wool content. The wool content of the finished grades A and C blankets prior to application of the shrink resistant treatment shall be not less than 95 percent based on the dry weight of the specimen when tested as specified in 4.2.3.3. The wool content of the finished grade B blanket prior to the application of the shrink resistant treatment shall be not less than 94 percent based on the dry weight of the specimen when tested as specified in 4.2.3.3.

3.2.2 Yarn. The wool shall be carded and spun on the woolen system for both warp and filling yarns.

3.2.3 Thread. The thread for overedging and stitching on labels shall be cotton, ticket No. 50, 3 ply conforming to type IA3 of V-T-276. Thread shall be dyed to match the shade of the blankets (see 3.7), except the thread for white blankets (type II, size 3) shall match the maroon stripes and the thread for overedging the Gray 3119 blankets (type I, size 1) shall be Cadet Gray TS, C.A. 66082. All dyed thread shall show colorfastness to light and laundering equal to or better than the standard sample. When no standard sample is available, the dyed thread shall show good colorfastness to light and laundering.

\* 3.3 Finish. The finished blanket shall be fulled and napped to produce a degree of finish, hand, and character of nap equal to or better than the standard sample (see 6.3). The character of nap is determined by lifting the napped fibers with a needle. The napped fibers of the sample being examined should offer resistance equal to or greater than the resistance offered by the napped fibers of the standard sample when lifted with the needle.

3.3.1 Mothproofing. The blankets shall be mothproofed in accordance with MIL-C-43665 (see 4.2.3.3).

3.3.2 Shrink resistant treatment (see 3.2.1.4). All blankets shall be given a shrink control treatment for resistance to felting shrinkage by an approved oxidation, oxidation/resin, resin or reactive treatment. The contractor shall certify which approved treatment he used (see 3.3.3, 3.3.4 and 3.3.5). The relaxation shrinkage of the treated blanket shall not exceed 6.0 percent in either the warp or filling direction when tested as specified in 4.2.3.3. The felting shrinkage of the treated blanket shall not exceed 4.0 percent in either the warp or filling direction when tested as specified in 4.2.3.3. The contractor shall show on the test reports for each lot whether the shrink resistant treatment is by oxidation, oxidation/resin, resin or reactive treatment.

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3.3.3 Alkali solubility. When oxidation or oxidation/resin method of producing shrink resistance is used, the alkali solubility of the treated blanket shall not be increased more than 6.0 percent (absolute) over the untreated blanket when tested as specified in 4.2.3.3.

3.3.4 Stiffness. When a resin or reactive treatment is used for producing shrink resistance, the stiffness of the treated blanket shall not be greater than 0.011 load pound when tested as specified in 4.2.3.3.

3.3.5 Weight of untreated blanket (see table I). If a resin treatment is used for producing shrink resistance, the minimum weight of the untreated blanket calculated to a 56-inch width shall be not less than 21.5 ounces per linear yard for type I, not less than 23.0 ounces per linear yard for type II, and not less than 11.25 ounces per linear yard for type III when tested as specified in 4.2.3.3 (see table I). The resin treatment shall not increase the weight of the untreated blanket by more than 20 percent.

3.3.6 pH. The pH value of the water extract of the finished types I, II, and III blankets shall be no less than 4.0 nor more than 8.0 when tested as specified in 4.2.3.3.

3.4 Overedge stitching. The cut edges and the leno selvage edges (when shuttleless looms are used) of the finished blankets shall be overedge stitched  $1/4$  ( $\pm 1/16$ ) inch wide, with not less than 16 nor more than 20 stitches per inch, using stitch type 505 with stitching type EFD-1 conforming to FED-STD-751. Overrun of overedge stitching shall be trimmed to not less than  $3/4$  inch and pulled back for its entire length under stitching.

3.5 Weave. The use of fly-shuttle or shuttleless looms is permitted.

3.5.1 Type I. Type I blanket shall be either a two-up and two-down straight twill or a two-up and two-down broken twill, running two to the right and two to the left.

3.5.2 Type II. Type II blanket shall be double woven, having a twill face of one-up, two-down and a twill back of two-up, one-down using two sets of filling yarns and one set of warp yarns as follows:

	<u>Weave - Type II</u>			
BACK	X	X	X	X
FACE		X		X
BACK	X	X	X	X
FACE	X		X	
BACK	X	X	X	X
FACE	X		X	

3.5.3 Type III. Type III blanket shall be a plain weave.

3.6 Physical requirements. The finished blankets shall conform to the requirements specified in table I when tested as specified in 4.2.3.3.

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TABLE I. Physical requirements of finished blankets

Type	Grade	Size	Dimensions, min. <u>1/</u> (see 4.2.3.2)		Weight per blanket, min. <u>2/</u>		Yarns per inch, min.		Breaking strength, min.	Thick- ness	
			Width inches	Length inches	Pounds	Ounces	Warp	Filling			Warp pounds
I	A	3	66	90	4	0	28	30	50	50	<u>4/</u>
I	B	1	60	84	3	6	28	30	45	45	<u>4/</u>
I	B	2	66	84	3	12	28	30	45	45	<u>4/</u>
I	B	3	66	90	4	0	28	30	45	45	<u>4/</u>
II	A	3	66	90	4	4	37	39 <u>3/</u>	45	45	-
III	C	4	50	78	1	6	33	34	28	26	-

1/ Seamed or spliced blankets are not permitted.

2/ See 3.3.5 for finished weight of resin treated cloth.

3/ Total yarns.

4/ The minimum thickness for the type I finished blanket shall be 0.130 inches at 0.1 pounds per square inch, and 0.085 inches at 1.1 pounds per square inch.

3.7 Colors and colorfastness. The types I and III blankets and the maroon stripes of type II blankets shall match the standard sample (see 6.3) and shall show color fastness to light, laundering and crocking equal to or better than the standard sample when tested as specified in 4.2.3.3. When no standard sample has been established or designated as applicable to colorfastness, the finished blanket shall show "good" fastness to light and laundering, and shall show a Munsell Value for crocking not lower than 8.5.

3.7.1 Gray. The Navy Gray 3119 color shall be obtained by stock dyeing with suitable dyestuffs blended with white wool.

3.7.2 Olive Green. The Olive Green 118 color (see 6.4.1) shall be obtained by blending dyed wool with white wool.

3.7.3 White. The white color shall match that of the standard sample.

3.7.4 Maroon. The shade for the stripes of the white blanket shall be dyed Maroon 165 (see 6.4.2).

3.7.5 Tan. The Air Force Tan 1559 color shall be obtained by stock or piece dyeing.

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\* 3.7.6 Matching. The color of the finished blanket shall match the standard sample under artificial daylight having a color temperature of  $7000 \pm 500$  kelvin and shall be a good approximation to the standard sample under incandescent lamplight at  $2800 \pm 100$  kelvin.

3.8 Marking. All markings specified herein shall show good colorfastness to laundering transference, shall be on the face side of the finished blanket, and shall be clearly legible after laundering when tested as specified in 4.2.3.3. The letters "U.S.", "M.A.C." and the caduceus shall be as indicated below and shall be positioned as shown in figure 1.

3.8.1 Type I, grade A or B, size 3 blanket. Blankets shall be marked with a black caduceus ( $6 \pm 1/8$  inches high by  $6-1/4 \pm 1/8$  inches wide) centered between black block letters U and S (each  $2 \pm 1/8$  inches high by  $1-1/2 \pm 1/8$  inches wide) conforming to type I of MS-16686. The marking shall be stamped, printed, or applied by the heat transfer method in the center of the blanket. If stamping is used, the formula used shall include potassium permanganate and acetone.

3.8.2 Type I, grade B, size 1 and 2 blankets. Blankets shall have "U.S." in outline block letters  $4 \pm 1/8$  inches high by  $3-1/4 \pm 1/8$  inches wide in the center of each blanket. The letters shall be stamped, printed or applied by the heat transfer method. The color shall be black. The overall width of the lettering shall be  $7-1/4 \pm 1/4$  inches. The color of the printed or stamped letters shall penetrate the blanket, and the printing or stamping material shall not stiffen the blanket surfaces. The printing shall be distinct with the edges of all the letters sharp and clear cut. If stamping is used, the formula used shall include potassium permanganate and acetone.

3.8.3 Type II, grade A, size 3 blanket. Blankets shall be marked in the center with a Maroon 165 color caduceus ( $6 \pm 1/8$  inches high by  $6-1/4 \pm 1/8$  inches wide) centered between Maroon 165 color block letters U and S ( $2 \pm 1/8$  inches high by  $1-1/2 \pm 1/8$  inches wide) conforming to type I of MS-16686. The caduceus and lettering shall be applied by the heat transfer method or may be woven into the blanket utilizing the same yarn which is used in weaving the stripes. The stripes shall be woven into the blanket  $3 \pm 1/4$  inches wide, extending parallel to the width of the blanket and  $7 \pm 1/2$  inches from each end when measured to the closest edge of the stripe.

3.8.4 Type III, grade C, size 4 blanket. Blankets shall have "M.A.C." in outline block letters  $4 \pm 1/8$  inches high by  $3-1/4 \pm 1/8$  inches wide in the center of each blanket. The letters shall be stamped, printed or applied by the heat transfer method. The color shall be black. The overall width of the lettering shall be  $11 \pm 1/4$  inches. The color of the printed or stamped letters shall penetrate the blanket, and the printing or stamping material shall not stiffen the blanket surfaces. The printing shall be distinct with the edges of all letters sharp and clear cut. If stamping is used, the formula used shall include potassium permanganate and acetone.

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3.9 Identification label. Each blanket shall have a  $2 \pm 1/4$  inch by  $3 \pm 1/4$  inch label located  $2 \pm 1/2$  inches from each edge on the back righthand lower corner of the blanket as the blanket is viewed face up. The label shall be positioned parallel with the selvage and shall read upright from the lower left hand selvage down toward the cut edge (see figure 1). The label may be attached to the blanket by stitching or by a heat sealing process. Heat sealed labels shall be comparable with the stitched labels insofar as adhesion to the blanket is concerned. When the label is stitched, it shall be stitched using stitch type 301 conforming to FED-STD-751, with not less than 10 stitches per inch. The label shall show fastness to laundering and shall conform to type I, class 1 of DDD-L-20. The label shall include the information required by the Wool Products Labeling Act of 1939. The heat sealed labels shall conform to all requirements of type I, class 1 labels prior to application of the heat sealing adhesive.

3.10 Workmanship. The finished blankets shall conform to the quality established by this specification. The occurrence of defects shall not exceed the applicable acceptable quality levels.

#### 4. QUALITY ASSURANCE PROVISIONS

\* 4.1 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 specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.1.1 Certificate of compliance. When certificates of compliance are submitted, the Government reserves the right to check test such items to determine the validity of the certification.

4.2 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.2.1 Component and material inspection. In accordance with 4.1 above, components and materials shall be inspected in accordance with all the requirements of referenced specifications, drawings, and standards unless otherwise excluded, amended, modified or qualified in this specification or applicable purchase document.

4.2.1.1 Examination of components.

4.2.1.1.1 Fleece or pulled wool. The wool shall be visually examined for grade in scoured form, prior to dyeing, picking or carding, by comparison with the applicable U.S. Standard (see 2.1). The examination for grade shall be performed on a composite sample of 1 pound of scoured wool for each 10,000 pounds or fraction thereof in the lot. The composite sample shall be selected from not less than 10 percent of the bales or bags in the lot. In the event of dispute resulting from above comparison, the grade shall be determined by a width method (wedge). The lot shall be unacceptable if the sample does not conform to the requirements of 3.2.1.1 through 3.2.1.3. Each lot shall consist of one grade of wool only.



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4.2.1.1.2 Reprocessed wool. Reprocessed wools shall be examined for grade when reduced to a fibrous state prior to blending with other component fibers. Method of sampling, sample size and acceptance criteria shall be as specified in 4.2.1.1.1.

4.2.2 In-process inspection. Inspection shall be made at any point or during any phase of the manufacturing process to assure that only approved wools are blended in the required proportions (see 3.2.1.1 through 3.2.1.3). The Government reserves the right to exclude from consideration for acceptance any blankets for which in-process inspection has indicated nonconformance.

#### 4.2.3 End item inspection.

4.2.3.1 Visual examination. The defects found during this examination shall be classified in accordance with table II. Each blanket shall be examined on one side only. However, the sample shall be alternated so that every other blanket is examined on the side stamped "U.S." or "M.A.C." All of the blankets shall be given a through lighting examination toward a light source for holes and thin areas. The defects shall be counted regardless of their proximity to each other, except where two or more defects represent a single local condition of the cloth, in which case only the more serious defect shall be counted. The sample unit shall be one blanket. The lot size shall be expressed in units of one blanket each. The inspection level shall be II and the acceptable quality level (AQL) shall be 1.0 major and 4.0 total (major and minor combined) defects per hundred units.

TABLE II. Classification of visual defects

Examine	Defect	Classification	
		Major	Minor
Material	Hole, cut or tear	X	
	Abrasion or thin place	X	
	Smash or mend <u>1/</u>	X	
	Broken or missing yarns:		
	-two or more contiguous, 2 inches or more in length	X	
	two contiguous, less than 2 inches in length		X
	Degree of finish, hand and character of nap not equal to or better than the standard sample <u>2/</u>	X	
	Unevenly napped <u>1/</u>	X	
	Rancid or other objectionable odor	X	
	Slub, knot, slough-off, or jerked in filling <u>1/</u>		X
	Burrs, shives, sisal or specks accumulation <u>1/</u>		X
	Spot, stain, or streak <u>1/</u>		X
	Shade bar, mixed filling <u>1/</u>		X
	Edges folded, rolled or scalloped, tight or loose		X

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TABLE II. Classification of visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Material (cont'd)	Edges cut, torn, or broken	X	
	Waviness, edges will not flatten by manual pressure		X
	Napping waste not cleaned from surface of blanket		X
	Coarse filling bar or heavy place 1/		X
	Off shade - not within acceptable shade range	X	
	Mottled or cloudy		X
	Nap offers only slight resistance to lifting with a needle	X	
Workmanship	Needle chew	X	
	Scorch or burn	X	
	Blanket composed of more than one piece	X	
Overedge stitching	Run-off, ravelled or incomplete:		
	- more than 1 inch	X	
	- one inch or less		X
	Loose tension resulting in an insecure or unsightly edge	X	
	Missing from either end or leno selvage edge when shuttleless looms are used (each end and selvage edge will be counted as a separate defect)	X	
	Wrong stitch type		X
	Wrong stitching type		X
	More than 5/16 inch or less than 3/16 inch wide		X
	Stitches per inch less than 16 or more than 20		X
	Overrun (defect on each end will be counted as a separate defect):		
	a. Trimmed less than 3/4 inch		X
b. Not pulled back for its entire length under stitching		X	
c. Missing		X	
Cloth cuttings not cleaned from under stitching		X	
Identification label	Missing, incorrect, illegible or insecurely attached		X
	Not labeled in accordance with the Wool Products Labeling Act of 1939		X
	Less than 10 stitches per inch (if sewn on)		X

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TABLE II. Classification of visual defects (cont'd)

Examine	Defect	Classification	
		Major	Minor
Identification label (cont'd)	More than 1/2 inch from specified location (either edge)		X
	Not parallel to the cut edge/selvage edge by more than 1/4 inch		X
	Label is applied on the wrong side of the blanket		X
	Label does not read upright from the lower left hand selvage down toward the cut edge		X
Markings (general)	Wrong color		X
	Not clearly defined		X
	Missing or incomplete (to be scored only when a significant portion of the marking is missing)		X
	Incorrect		X
"U.S." or "M.A.C." marking	Height or width or lettering other than specified		X
	Letters not centered vertically or horizontally, by more than 2 inches		X
	Not applied upright nor positioned as shown for "U.S." in figure 1 (see 3.8)		X
Caduceus	When required, not specified size		X
	Not applied upright nor positioned as shown for "U.S." in figure 1 (see 3.8)		X
Stripes (type II)	Either missing (score as separate defect for each end)	X	
	Less than 2-3/4 inches wide or more than 3-1/4 inches wide		X
	Outer edges less than 6-1/2 inches or more than 7-1/2 inches from either end of blanket		X

1/ Clearly visible at approximately 3 feet.

2/ Degree of finish clearly visible at approximately one foot. Character of nap is the resistance offered when the napped fibers are lifted with a needle. The needle used for the examination shall be a commercial hand sewing type with a diameter of  $0.050 \pm 0.002$  inch and shall be no less than 2 inches long. Commercial needle size No. 1/0 meets the cited requirement.

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4.2.3.2 Dimensional examination. Defects found during the examination shall be classified in accordance with table III. The sample unit shall be one blanket. The lot size shall be expressed in units of one blanket. The inspection level shall be S-4 and the AQL shall be 2.5 major and 6.5 total (major and minor combined) defects per hundred units.

TABLE III. Classification of dimensional defects

Examine	Defect	Classification	
		Major	Minor
Finished length of blanket	More than 2 inches short	X	
	2 inches or less short		X
Finished width of blanket	More than 2 inches narrow	X	
	2 inches or less narrow		X

4.2.3.3 End item testing. The methods of testing specified in FED-STD-191 wherever applicable and as listed in table V shall be followed. The physical and chemical values specified in section 3 apply to the results of the determinations made on a sample unit for test purposes as specified in applicable test method. The lot size shall be expressed in units of one blanket each. Each test report shall show whether shrink resistance was imparted by oxidation, oxidation/resin, resin or reactive treatment (see 3.3.2). The sample unit for test purposes shall be as follows:

(a) One-quarter yard width of the blanket cloth finished to the stage prior to application of shrink resistant treatment, for determination of fiber content and for determination of alkali solubility if treated by oxidation or oxidation/resin (see 3.3.3) or for initial weight if resin treated (see 3.3.2 and 3.3.5)

(b) One finished blanket for all required tests. The lot shall be unacceptable if one or more units fail to meet any requirement specified. All test reports shall contain the individual values utilized in expressing the final result. For each characteristic, the sample size shall be in accordance with table IV.

TABLE IV.

Lot size	Sample size
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

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TABLE V. Test methods

Characteristic	Requirement paragraph	Test method
Wool content	3.2.1.4	2101
Mothproofing (percent)	3.3.1	<u>1/</u>
Type of shrink resistant treatment	3.3.2	<u>2/</u>
Shrinkage in relaxation	3.3.2	5558
Shrinkage in felting	3.3.2	5554 <u>3/</u>
Alkali solubility (oxidation or oxidation/resin shrink resistant treatment only)	3.3.3	2800 <u>4/</u>
Stiffness (resin or reactive shrink resistant treated only)	3.3.4	5202 <u>5/</u>
Weight per linear yard, 56 inch width (resin treated only):		
Untreated	3.3.5	5041 <u>6/</u>
Treated (percent increase of weight)	3.3.5	5041 <u>7/</u>
pH	3.3.6	2811
Weave	3.5	<u>2/</u>
Yarns per inch	3.6	5050
Weight of finished blanket	3.6	<u>8/</u>
Breaking strength	3.6	5100
Thickness (type I)	3.6	5030 <u>9/</u> <u>2/</u>
Colorfastness to:		
Light	3.7	5660
Laundering	3.7 and 3.8	5614 <u>10/</u>
Crocking	3.7	5651 <u>11/</u>

1/ As specified in MIL-C-43665

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- 2/ The contractor shall submit a certificate of compliance indicating conformance to the required characteristic. When required, the certificate shall be accompanied by actual test, inspection or other verifiable data.
- 3/ The felting shrinkage (5554) shall be determined on the same specimens used for relaxation shrinkage (5558) and determined by the following formula:

$$\text{Felting shrinkage, percent} = \frac{B - F}{B} \times 100$$

B = Average measurements after relaxation  
 F = Average measurements after felting

- 4/ Two oxidation shrink resistant treated and two untreated specimens shall be tested per sample unit.
- 5/ Five specimens only in the warp direction shall be tested.
- 6/ Report the results on a sample unit basis as required for compliance with requirement for weight per linear yard of the untreated blanket.
- 7/ The average of the specimens tested of the untreated material and the average of the specimens tested of the resin treated material shall be used to calculate the percent increase in weight of the blanket material due to resin treatment. The results shall be reported to the nearest 0.1 percent.
- 8/ Each individual blanket shall be weighed and the results reported to the nearest 1.0 ounce. The test for weight of the finished blanket shall be conducted prior to any other tests and shall be conducted on the blanket in equilibrium with Standard Conditions as defined in FED-STD-191.
- 9/ Method 5030 applies except for the following:

Ten 2 by 2-inch specimens shall be die cut in a dispersed pattern in the sample unit. No two specimens shall contain the same warp-wise or filling-wise system of yarns. The thickness under the lighter loads shall be determined first. A reading shall be obtained under each of the two loads on each specimen. The results reported shall be an average of the readings for each load and failure to meet minimum thickness under either load shall be cause for rejection. Thickness measurements shall be determined on the finished blanket just prior to folding and packaging.

- 10/ If any portion of the blanket markings are obliterated during the test, the marking shall be considered unsatisfactory.
- 11/ For type II blankets, the crocking test shall be performed on the lengthwise direction of the stripe.

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4.2.4 Packaging inspection. An examination shall be made to determine that preservation, packing and marking comply with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged, with the exception that it need not be closed. Defects of closure listed below shall be examined on shipping containers fully packaged. The lot size shall be the number of shipping containers in the end item inspection lot. The inspection level shall be S-2 and the AQL shall be 2.5 defects per hundred units.

<u>Examine</u>	<u>Defect</u>
Marking (exterior and interior)	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.
Materials	Any component missing, damaged or not as specified.
Workmanship	Inadequate application of components, such as: top and bottom sheets of paper not completely covering contents, incomplete closure of container flaps, improper taping, loose stapling, and inadequate stapling. Bulged or distorted containers.
Content	Number of blankets per container is more or less than required.

4.2.4.1 Examination of preparation for delivery requirements for contour packaged items. An examination shall be made in accordance with the provisions of MIL-C-43424 to determine that the packaging, packing and marking comply with the section 5 requirements.

## 5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A. Each blanket shall be folded flat and smooth to measure approximately 23 by 14-1/2 inches.

5.1.2 Commercial. Blankets shall be preserved in accordance with MIL-STD-1188.

5.2 Packing. Packing shall be level A, B or Commercial as specified (see 6.2).

5.2.1 Level A packing. Blankets of one type, grade, size, and color only, preserved as specified in 5.1, shall be packed flat, in the quantity specified in table VI, in a fiberboard shipping container conforming to style RSC-L, grade V2s of PPP-P-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class weather-resistant, variety DW, grade V15c of PPP-B-636. The blankets shall be arranged to achieve a balanced pack within the shipping con-

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container. Inside dimensions of each shipping container shall approximate 23-1/2 inches in length, 15 inches in width, and 17 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight kraft paper conforming to type I, grade B or UU-P-268 or 0.003 inch minimum ( $\pm$  20 percent tolerance) polyethylene film. Each shipping container shall be closed in accordance with method III, waterproofed in accordance with method V, and reinforced as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.2.4.

\* 5.2.2 Level B packing. Blankets of one type, grade, size and color only, preserved as specified in 5.1, shall be packed flat in the quantity as specified in table VI within a fiberboard shipping container assembled and closed, conforming to style RSC-L, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. The inside of each shipping container shall be fitted with a box liner conforming to type CF, class domestic, variety DW, grade 275 of PPP-B-636. The blankets shall be arranged to achieve a balanced pack within the shipping container. Inside dimensions of each shipping container shall approximate 23-1/2 inches in length, 15 inches in width, and 17 inches in depth. Approximate dimensions are furnished as a guide only. Each container shall have the contents completely covered on the top and bottom with a sheet of 30 pound minimum basis weight kraft paper conforming to type I, grade B of UU-P-268 or 0.003 inch minimum ( $\pm$  20 percent tolerance) polyethylene film. Each shipping container shall be closed in accordance with method II as specified in the appendix of PPP-B-636, except that the inspection shall be in accordance with 4.2.4.

TABEL VI. Blanket quantities per shipping container

Type	Grade	Size	Quantity (each)
I	A	3	8
I	B	1	8
I	B	2	8
I	B	3	8
II	A	3	8
III	C	4	15

5.2.3 Commercial. Blankets, preserved as specified in 5.1, shall be packed in accordance with MIL-STD-1188.

5.3 Marking. In addition to any special marking required by the contract, shipping containers shall be marked in accordance with MIL-STD-129 or MIL-STD-1188, as applicable.



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## 6. NOTES

### 6.1 Intended use.

- (a) Type I, grade A or B, size 3, olive green is a medical field blanket.
- (b) Type I, grade B, size 1, gray, is a Navy crew blanket.
- (c) Type I, grade B, size 2, olive green blanket is used by the Army, Navy, Air Force and Marine Corps.
- (d) Type II, grade A, size 3, is a hospital blanket.
- (e) Type III, grade C, size 4, tan blanket is for use by passengers in transport planes of the Military Airlift command.

### 6.2 Ordering data. Procurement documents should specify the following:

- (a) Title, number and date of this specification.
- (b) Type, grade, size and color required (see 1.2).
- (c) Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
- (d) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).

6.3 Standard sample. Standard samples may be obtained from the procuring activity issuing the invitation for bids (see 3.1, 3.3, and 3.7).

6.4 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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**Custodians:**

Army - GL  
Navy - NU  
Air Force - 99

**Preparing activity:**

Army - GL  
Project No. 7210-0245

**Review activities:**

Army - MD  
Air Force - 03  
DSC - DM  
DLA - CT

**User activities:**

Navy - YD, MC, MS

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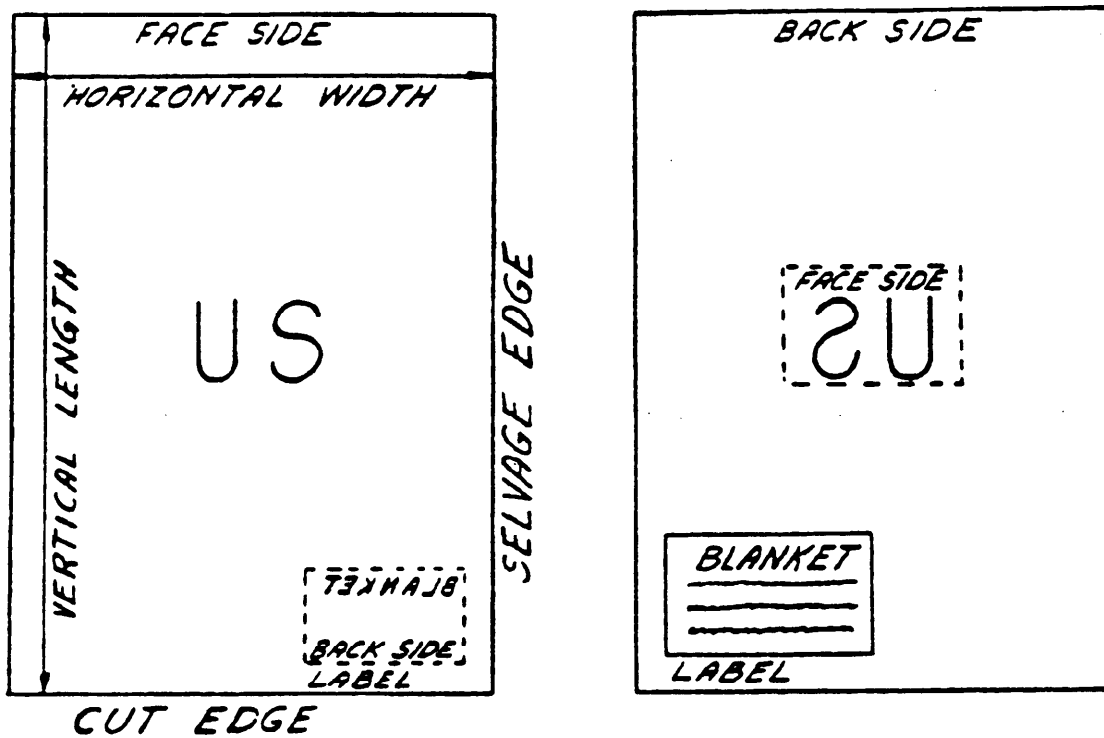


FIGURE 1 BLANKET, BED WOOL



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