

CCC-C-440E

June 15, 1976

SUPERSEDING

Fed. Spec. CCC-C-440D

June 11, 1969

FEDERAL SPECIFICATION**CLOTH, CHEESECLOTH, COTTON, BLEACHED AND UNBLEACHED**

This specification was approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers three types of constructions; cheesecloth and tobacco cloth. Each construction has two classes; unbleached and bleached. Both constructions are commercially known as "nonfeeler motion" quality.

1.2 Classification.

1.2.1 Types and classes. The cheesecloth shall be of the following types and classes as specified (see 6.2):

Type I	-	44 by 36
Type II	-	28 by 24
Type III	-	40 by 25
Class 1	-	Unbleached
Class 2	-	Bleached

2. APPLICABLE DOCUMENTS

2.1 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:

Federal Specifications:

UU-P-268	-	Paper, Kraft, Wrapping
PPP-B-636	-	Boxes, Shipping, Fiberboard
PPP-F-320	-	Fiberboard; Corrugated and Solid, Sheet Stock (Container Grade) and Cut Shapes

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- PPP-P-1134 - Packaging and Packing of Cotton and Cotton-Synthetic Fiber Blend Fabrics (Excluding Duck Fabrics)
- PPP-T-45 - Tape, Gummed, Paper, Reinforced and Plain, for Sealing and Securing

Federal Standards:

- Fed. Std. No. 4 - Glossary of Fabric Imperfections.
- Fed. Test Method Std. No. 191 - Textile T-st Methods.

(Activities outside the Federal Government may obtain copies of Federal Specifications, Standards, and Handbooks as outlined under General Information in the Index of Federal Specifications and Standards and at the prices indicated in the Index. The Index, which includes cumulative monthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification and other Federal specifications required by activities outside the Federal Government for bidding purposes are available without charge from Business Service Centers at the General Services Administration Regional Offices in Boston, New York, Washington, DC, Atlanta, Chicago, Kansas City, MO, Fort Worth, Denver, San Francisco, Los Angeles, and Seattle, WA.

(Federal Government activities may obtain copies of Federal Specifications, Standards, and Handbooks and the Index of Federal Specifications and Standards from established distribution points in their agencies.)

Military Standard:

- MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

(Copies of Military Specifications and Standards required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

Laws and Regulations:

- 16CFR 303 - Rules and Regulations Under the Textile Fiber Products Identification Act.

(Copies may be obtained without charge from the Federal Trade Commission, Washington, DC 20580.)

3. REQUIREMENTS

3.1 Standard sample. When a standard sample is available, the cloth 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 Yarn. The yarn shall be made from cotton, free from waste and loading materials, carded, drawn and spun into single yarns.

3.3 Physical requirements. The cloth shall conform to the physical requirements specified in table I when tested as specified in 4.4.

TABLE I. Physical requirements

Type	Class	Yarns per inch <u>1/</u>						Weight		Breaking	
		Warp		Filling		Total yarns		per square		strength lbs.	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Warp	Filling
I	1	41	47	33	39	76	84	1.60	1.88	22	10
I	2	41	47	33	39	76	84	1.35	1.59	20	9
II	1	26	30	22	26	49	55	0.98	1.16	10	5
II	2	26	30	22	26	49	55	0.87	1.03	8	4
III <u>2/</u>	2	37	43	22	28	61	69	1.50	2.07	18	6

1/ A variation in yarns per inch is allowed within the minimum and maximum values specified for the warp and filling individually; however, the total yarn count (warp plus filling) must be within the specified total minimum and maximum values.

2/ This type of cheesecloth is constructed from crimped yarn folded into 3 plies.

3.3.1 Weave. The weave shall be plain.

3.3.2 Width. The width shall be as specified, and shall be the minimum acceptable width inclusive of the selvages.

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3.4 Finish.

3.4.1 Class 1. The class 1 cloth shall be unbleached.

3.4.2 Class 2. The class 2 cloth shall be bleached.

3.5 Color. The color of class 2 cloth shall be bleached white to match the standard sample, or when no standard sample is available the final acceptance of the degree of whiteness shall be at the discretion of the procurement officer. The chemically bleached cloth may be supplemented with a fluorescent optical brightener.

3.5.1 Matching. The color shall match the standard sample under artificial daylight having a color temperature of 7500° Kelvin and shall be a good approximation to the standard sample under incandescent lamplight at 2800° Kelvin.

3.6 Length and put-up.

3.6.1 Folded pieces or rolls. Unless otherwise specified (see 6.2), the cloth shall be put-up in folded pieces or rolls as specified in PPP-P-1134. The length shall be no less than 100 nor more than 200 yards. The length shall consist of not more than 4 pieces, the shorter of which shall measure no less than 10 yards. The pieces shall not be seamed but shall be lapped together.

3.6.2 Ten-yard pieces. When 10-yard pieces are specified (see 6.2), each piece of cloth 10 yards \pm 1/2 yard in length of the type and class specified shall be folded to a size approximately 4 inches by 8 inches.

3.7 Fiber identification. Each piece or roll of cloth shall be labeled, or ticketed for fiber content in accordance with the Textile Fiber Products Identification Act.

3.8 Workmanship. The cloth shall conform to the quality and grade of product established by this specification. The demerit points when calculated as specified in section 4 shall not exceed the established maximum point value.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or order, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government.

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

4.2 Inspection. Sampling for inspection shall be performed in accordance with MIL-STD-105, except where otherwise indicated hereinafter.

4.2.1 Component and material inspection. In accordance with 4.1 above, components and materials shall be tested 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 documents. In addition the supplier shall submit a certificate of compliance stating that cotton yarns were the only yarns used in the weaving of the cloth.

4.2.2 Examination of the end item. The examination of the end item shall be in accordance with 4.2.2.1 through 4.2.3.

4.2.2.1 Yard-by-yard examination. The required yardage of each piece or roll shall be examined, and defects clearly noticeable at normal inspection distance (3 feet) shall be classified as listed. The defects found shall be counted regardless of their proximity to each other, except when two or more defects represent a single local condition of the cloth, only one shall be scored. A continuous defect shall be counted as one defect for each yard or fraction thereof in which it occurs. The sample unit shall be one linear yard. The acceptable quality level shall be 4.0 defects per 100 units (yards). The sample size shall be in accordance with level I of MIL-STD-105. The lot size shall be expressed in units of one yard each. The number of pieces or rolls selected shall be in accordance with table II. An approximate equal number of yards shall be examined from each piece or roll selected.

Defects

Hole, cut or tear
Smash, multiple floats
Knots 1/
Grease or oil stain
Thin places
Missing filling

1/ To be scored when larger than limits shown on figure 4 of FED-STD-4.

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4.2.2.1.1 Overall examination. Each defect shall be counted no more than once in each piece or roll examined. The sample unit shall be one piece or roll. The sample size (number of pieces or rolls selected as sample) and the acceptance number shall be as shown in table II.

Defects

Width less than specified
Overall uncleanness
Not bleached (class 2)

TABLE II. Sample size

Lot size (yards)	Sample size		Acceptance number
	folded pieces or rolls or ten yard pieces		
	(folded pieces or rolls)	(ten yard pieces)	
Up to and including 3200	3	5	0
3201 up to and including 10,000	5	8	0
10,001 up to and including 35,000	8	13	1
35,001 up to and including 150,000	13	20	2
150,001 and over	20	32	3

4.2.2.2 Examination for length.

4.2.2.2.1 Individual pieces or rolls. During the yard-by-yard examination, each roll or piece in the sample shall be examined for the defects listed below. The lot shall be unacceptable if two or more of the following defects are present:

Length is less than minimum or more than maximum specified.

Length is more than 2 yards below the length marked on the ticket.

Length contains more than 4 pieces.

Length of any one piece is less than 10 yards.

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4.2.2.2.2 During the yard-by-yard examination each piece or roll shall be examined for length. Any length found to be less than the minimum specified or more than the maximum specified shall be considered a defect with respect to length. The lot shall be unacceptable if four or more pieces or rolls are defective with respect to length.

4.2.2.2.3 Total yardage in sample. The lot shall be unacceptable if the total of the actual lengths in the sample is less than the total of the lengths marked on the tickets.

4.2.3 Examination for compliance with Textile Fiber Products Identification Act. During the yard-by-yard examination, each piece or roll in the sample shall be examined for conformance to the Textile Fiber Products Identification Act. Each piece or roll not labeled in accordance with this act shall be a defect. The lot shall be unacceptable if three or more of these defects or if four or more of these defects occur.

4.3 Examination of preparation for delivery requirements. An examination shall be made to determine that the packaging, packing and marking complies with the section 5 requirements in accordance with the provisions of PPP-P-1134.

4.4 Testing of the end item. The method of testing specified in FED-STD-191, wherever applicable and as listed in table III 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 the applicable test method. All test reports shall contain the individual values utilized in expressing the final result. The sample unit shall be 1 yard full width of the finished cloth. The lot size shall be expressed in units of one yard. The lot shall be unacceptable if one or more sample units fail to meet any test requirement specified. The sample size (number of sample units) shall be as follows:

<u>Lot size (yards)</u>	<u>Sample size (units)</u>
800 or less	2
801 up to and including 22,000	3
22,001 and over	5

TABLE III. Test methods

<u>Characteristic</u>	<u>Requirement paragraph</u>	<u>Test method</u>
Cotton identification	3.2.1	1200 <u>1/</u>
Yarns per inch:		
Warp	3.3	5050
Filling	3.3	5050

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TABLE III. Test methods (con.)

Characteristic	Requirement paragraph	Test method
Total yarns per inch	3.3	5050
Weight	3.3	5041 <u>2/</u>
Breaking strength:		
Warp	3.3	5100
Filling	3.3	5100
Weave	3.3.1	Visual <u>3/</u>
Bleached (class 2)	3.4.2	<u>1/</u>

- 1/ Unless otherwise specified, a certificate of compliance shall be submitted and will be acceptable for the stated requirement.
- 2/ In the event of dispute, the weight shall be determined from the actual yardage and weight of an entire piece. Results shall be reported to the nearest 0.01 ounce.
- 3/ One determination shall be made from each sample unit and the result reported as "pass" or "fail".

5. PREPARATION FOR DELIVERY

5.1 Packaging. Packaging shall be level A or C, as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Folded pieces (bolts) or rolls. Cloth of one type and class only, put up as specified, shall be completely inclosed in a wrap of 30-pound minimum basis weight kraft paper conforming to grade B of UU-P-268 or a plastic film bag. The wrap shall be secured with gummed paper tape conforming to grade B of PPP-T-45. Each put-up shall be wrapped so as to leave the attached identification ticket clearly exposed on the outside of the package. When specified, wrapped packages may be marked or labeled in lieu of using piece tickets (see 6.2).

5.1.1.2 Ten-yard pieces. Cloth of one type and class only, put up as specified, shall be inserted in a snug-fitting transparent plastic film or passine-type envelope or bag. Closure shall be effected by heat sealing, pressure-sensitive tape, or mechanical tie (paper or plastic covered soft wire, aluminum band).

5.1.2 Level C. Cloth shall be packaged to afford adequate protection against physical damage during shipment from the supply source to the first receiving activity. The supplier may use his standard practice when it meets this requirement.

5.2 Packing. Packing shall be level A, B or C, as specified (see 6.2 and 6.2.1).

5.2.1 Level A packing.

5.2.1.1 Folded pieces or rolls. Cloth of one type and class only, packaged as specified in 5.1, shall be packed in accordance with the applicable requirements of PPP-P-1134.

5.2.1.2 Ten-yard pieces. Fifty pieces of 10-yard length cloth of one type and class only, packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC, grade V2s of PPP-B-636. Each shipping container shall be closed, waterproofed and reinforced in accordance with the appendix of the container specification.

5.2.2 Level B packing.

5.2.2.1 Folded pieces or rolls. Cloth of one type and class only, packaged as specified in 5.1, shall be packed in accordance with the applicable requirements of PPP-P-1134, except that the requirement for a kraft paper liner shall not apply.

5.2.2.2 Ten-yard pieces. Fifty pieces of 10-yard length cloth of one type and class only, packaged as specified in 5.1, shall be packed in a snug-fitting fiberboard shipping container conforming to style RSC, type CF (variety SW) or SF, class domestic, grade 275 of PPP-B-636. Each shipping container shall be closed in accordance with method II as specified in the appendix of the container specification.

5.2.2.2.1 When specified (see 6.2), the shipping container shall be a grade V3c or V3s fiberboard box fabricated in accordance with PPP-B-636 and closed in accordance with the appendix of the container specified. The shipping container material may also be grade V4s of PPP-F-320.

5.2.3 Level C packing. Cloth, packaged as specified in 5.1, shall be packed in accordance with the level C requirements of PPP-P-1134.

5.3 Marking.

5.3.1 Civil requirements. In addition to any special marking required by the contract or order, interior packages and shipping containers shall be marked in accordance with PPP-P-1134.

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5.3.2 Military requirements. In addition to any special marking required by the contract or order, interior packages and shipping containers shall be marked in accordance with PPP-P-1134.

6. NOTES

6.1 Intended use. The cloth is used in items of clothing and for polishing and cleaning operations.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents:

- (a) Title, number and date of this specification.
- (b) Type and class (see 1.2).
- (c) Put-up, when other than specified (see 3.4).
- (d) Selection of applicable levels of packaging and packing (see 5.1 and 5.2).
- (e) Whether wrapped packages shall be marked or labeled in lieu of using piece tickets (see 5.1.1.1).
- (f) When weather-resistant grade fiberboard shipping containers are required for level B packing (see 5.2.2.1).
- (g) Width required.

6.2.1 In the preparation of contracts or orders, it should be noted that various options, choices, and alternatives, as indicated in PPP-P-1134 may be exercised in the preparation for delivery of this cloth.

6.3 Standard sample. For access to standard sample, address the procuring office issuing the invitation for bids.

Custodians:

Army - GL
Navy - SA
Air Force - 82

Preparing activity:

Army - GL

Civil Agency Coordinating Activities:

Review activities:

Army - MD, SM
Navy - IC
Air Force - 45
DSA-CT

GSA-FSS
VA-DMS
DC
DS

Project No. 8305-0284

User activities:

Army - AV, ME
Navy - YD, CG

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