

MIL-C-87019A(NU)

6 May 1982

SUPERSEDING

MIL-C-87019(SA)

14 April 1976

MILITARY SPECIFICATION

CLOTH, NONWOVEN, DISPOSABLE, SPUNBONDED

OLEFIN (COATED AND UNCOATED)

This specification is approved for use by Navy Clothing and Textile Research Facility, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for two types of nonwoven disposable cloths of spunbonded olefin.

* 1.2 Classification. The cloths shall be of the following types (see 6.2):

Type I - Perforated, uncoated

Type II - Nonperforated

Class A - Uncoated

Class B - Coated

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications, standards, and handbooks. Unless otherwise specified, the following specifications, standards and handbooks of the issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form a part of this specification to the extent specified.

SPECIFICATION

FEDERAL

PPP-P-1136 - Packaging and Packing of Coated (Plastic; Rubber)

Beneficial comments (recommendations, additions, and deletions) and any pertinent data which may be of use in improving this document should be addressed to: Officer in Charge, Navy Clothing and Textile Research Facility, 21 Strathmore Road, 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.

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STANDARDS

FEDERAL

FED-STD-191 - Textile Test Method

MILITARY

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

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

2.1.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this specification to the extent specified herein.

LAWS AND REGULATIONS

Rules and Regulations under the Textile Fiber Products Identification Act.

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

2.2 Other publications. The following document(s) form a part of this specification to the extent specified herein. The issues of documents which are indicated as DoD adopted shall be the issue listed in the current DoDISS and supplement thereto, if applicable.

NATIONAL MOTOR FREIGHT TRAFFIC ASSOCIATION INC., AGENT

National Motor Freight Classification

(Application for copies should be addressed to the American Trucking Associations, Inc., Traffic Department, 1616 P Street, N.W., Washington, D.C. 20036.)

UNIFORM CLASSIFICATION COMMITTEE, AGENT

Uniform Freight Classification

(Application for copies should be addressed to the Uniform Classification Committee, Room 1106, 222 South Riverside Plaza, Chicago, IL 60606.)

3. REQUIREMENTS

3.1 Standard sample. When a standard sample is available, the finished cloth shall be equal to or better than the sample with respect to all characteristics for which the standard sample is referenced (see 6.2).

3.2 First article. When specified (see 6.2), the contractor shall furnish sample unit(s) for first article inspection and approval (see 4.2).

3.3 Cloths, nonwoven.

3.3.1 Type I. The cloth shall be an uncoated nonwoven spunbonded olefin material containing perforations evenly distributed over its surface to provide for air permeability. The color shall be any shade of white. The cloth shall conform to the requirements specified in Table I when tested as specified in 4.5.

Table I Physical requirements of type I cloth

Weight, oz/sq yd (minimum)	1.1
Breaking strength, lbs (minimum)	
Machine direction	5.3
Cross direction	7.5
Air permeability, ft ³ air/minute/ft ² (minimum)	30.0

3.3.2 Type II.

* 3.3.2.1 Class A. The nonperforated uncoated cloth shall be a nonwoven spunbonded olefin material. The color shall be any shade of white. The cloth shall conform to the requirements specified in Table II when tested as specified in 4.5.

Table II Physical requirements of type II Class A cloth

Weight, oz/sq yd.	1.1 - 1.5
Breaking strength, lbs (minimum)	
Machine direction	5.5
Cross direction	8.1

* 3.3.2.2 Type II, Class B. The cloth specified in 3.3.2.1 shall be coated on one side with a clear or natural color low density polyethylene resin. The coated cloth shall conform to the requirements specified in Table III when tested as specified in 4.5. The coated side of the cloth shall be the face side.

Table III Physical requirements of type II Class B cloth

Weight, oz/sq yd. (minimum)	2.0
Breaking strength, lbs. (minimum)	
Machine direction	9.0
Cross direction	10.0
Hydrostatic resistance, p.s.i., (minimum)	30
Tearing strength, lbs. (minimum)	
Machine direction	2.0
Cross direction	3.0

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* 3.4 Length, width and put up. Types I and II cloth shall be put-up on rolls as specified in PPP-P-1136. The length and width shall be as specified (see 6.2, 6.2.1). Cloths having a face and back shall be rolled with the face to the inside. The work "back" shall be legibly stamped on the proper side on the outer cut end of the roll.

3.5 Workmanship. The finished cloths shall conform to the quality established by this specification. The occurrence of defects shall not exceed the applicable 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 as 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. 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 First article inspection. The first article submitted in accordance with 3.2 shall be inspected as specified in 4.3.2 for compliance with construction, workmanship, and end item testing.

4.3 Inspection. Sampling for inspection shall be in accordance with the provisions set forth in MIL-STD-105, except where otherwise indicated hereinafter.

4.3.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected and 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 document.

4.3.2 Examination of the end item. The end item shall be examined in accordance with the classification of defects and at the inspection levels and acceptable quality levels (AQL's) set forth below.

4.3.2.1 Yard-by-yard examination. The required yardage of each 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 where two or more defects represent a single local condition of the cloth, in which case only the most serious defect shall be counted. 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 for all defects listed. The sample size shall be in accordance with inspection level II of MIL-STD-105. The lot size shall be expressed in units of one yard each. The number of rolls selected shall be in accordance with Table II. An approximately equal number of yards shall be examined from each roll in the sample.

Defects

Any hole, cut or tear.
 Any imbedded foreign matter.
 Any unbonded area or delamination of the coating
 from the base cloth.

4.3.2.2 Overall examination. Each defect shall be counted not more than once in each roll examined. The sample unit shall be one roll. The sample size and the acceptance number shall be as shown in Table IV.

Defects

Color not as specified.
 Overall uncleanness.
 Width less than specified.
 Objectionable odor.

Table IV - Sample size

Lot size (yards)	Sample size (rolls)	Acceptance number
Up to 1200 inclusive <u>1/</u>	3	0
1201 to 3200 inclusive	5	0
3201 to 10,000 inclusive	8	0
10,001 to 35,000 inclusive	13	0
35,001 to 150,000 inclusive	20	1
150,001 and over	32	2

1/ If the lot contains fewer than 3 rolls, each piece in the lot shall be examine

4.3.3 Examination for length.

4.3.3.1 Individual rolls. During the yard-by-yard examination, each roll in the sample shall be examined for length. Any length found to be less than the minimum specified or more than two yards less than the length marked on the ticket, shall be considered a defect with respect to length. The lot shall be unacceptable if two or more rolls in the sample are defective in respect to length.

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

4.4 Examination of packaging requirements. An examination shall be made in accordance with the provisions of PPP-P-1136 to determine whether packaging, packing and marking comply with Section 5 requirements.

4.5 Testing of the end item. 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 shall apply to the results of the determination made on a sample unit for test purposes as specified in the applicable test method. The sample unit shall be 2 yards full width of the cloth. The lot

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shall be unacceptable if one or more sample units fail to meet any requirements specified. All test reports shall contain the individual values utilized in expressing the final results. The sample size shall be as follows:

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

Table V - Test methods

<u>Characteristic</u>	<u>Requirement paragraph</u>	<u>Test method</u>
Weight	Tables I, II and III	5041
Breaking strength	Tables I, II and III	5102 <u>1/</u>
Tearing strength	Table III	5132
Hydrostatic resistance	Table III	5512 <u>2/</u>
Air permeability	Table I	5450

1/ Results shall be reported to the nearest 0.1 pound.

2/ The coated side shall be exposed to the water.

5. PACKAGING

5.1 Preservation-packaging. Packaging shall be level A or C, as specified (see 6.2 and 6.2.1).

5.1.1 Levels A and C. The cloth, put up as specified (see 3.6), shall be packaged in accordance with the applicable requirements of PPP-P-1136.

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

5.2.1 Levels A, B, and C. The cloth shall be packed in accordance with the applicable requirements of PPP-P-1136.

5.3 Marking. In addition to any special marking required by the contract or order (see 6.2), shipments shall be marked in accordance with the applicable requirements of PPP-P-1136.

6. NOTES

6.1 Intended use. The cloths covered by this specification are intended primarily for use in the fabrication of disposable shirts, pants and aprons used by torpedo handler's for protection from exposure to OTTO fuels.

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification.
- b. Type required (see 1.2).
- c. Requirements for the first article (see 3.2 and 6.4).
- d. Length and width required (see 3.4).
- e. Levels of packaging and packing required (See 5.1 and 5.2).

6.2.1 Preparation for delivery. In the preparation of contracts or orders, it must be noted that various options, choices, and alternatives, as indicated in PPP-P-1136 may be exercised in preparation for delivery of the cloth.

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

6.4 First article. When a first article inspection is required, the item will be tested and should be a first article sample. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, quantity, and testing and approval of the first article.

6.5 Changes from previous issue. The margins of this specification are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) 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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DOCUMENT IDENTIFIER (Number) AND TITLE

MIL-C-87019A(NU) CLOTH, NONWOVEN, DISPOSABLE, SPUNBONDED OLEFIN (COATED AND UNCOATED)
 NAME OF ORGANIZATION AND ADDRESS OF SUBMITTER

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