

MIL-C-4141B (USAF)

11 July 1979

SUPERSEDING

(See Section 6)

MILITARY SPECIFICATION

CLOTH, MONOFILAMENT, NETTING

This specification is approved for use by the Air Force Materials Laboratory, Department of the Air Force, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers two types of plastic mesh cloth.

1.2 Classification. The cloth shall be of the following types as specified (see 6.2).

Type I - 12 x 12 mesh
Type II - 20 x 20 mesh.

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

PPP-P-1133

- Packaging and Packing of Synthetic
Fiber Fabric

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Air Force Materials Laboratory, WPAFB, OH 45433 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end to this document or by letter.

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STANDARDS

FEDERAL

FED-STD-4
FED-STD-191

-Glossary of Fabric Imperfections
-Textile Test Methods

(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.)

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

Rules and Regulations Under Textile Fiber Products Identification Act

(Copies may be obtained from the Federal Trade Commission, Wash, D.C.20580.)

3. REQUIREMENTS

3.1 Material. The material shall be a continuous extruded monofilament of Vinylidene Chloride as defined in Rules and Regulations Under the Textile Fiber Products Identification Act.

3.2 Construction and physical requirements. The finished cloth shall conform to requirements in Table I when tested as specified in 4.5.

Table 1. Construction and physical requirements.

Requirement	Type I	Type II
Warp ends per inch	12 \pm 1	20 \pm 1
Picks per inch	12 \pm 1	20 \pm 1
Weight, oz./sq. yd. (max.) (g/m ²)	13.0 (440)	7.0 (237)
Thickness, inches \pm 0.005, (mm) \pm 0.13	0.040 (1.0)	0.025 (0.64)
Elongation, percent (min.)		
Warp	20	20
Filling	20	20
Breaking strength, lbs. (min.) (N)		
Warp	95 (423)	65 (289)
Filling	90 (400)	65 (289)

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- 3.2.1 Weave. The weave shall be plain, one up and one down.
- 3.2.2 Splices. Well made splices showing no tails shall be permitted at any point of any individual filament provided that the number of splices does not exceed 30 in any length of 100 linear feet (30.48m).
- 3.2.3 Selvage. The selvage for Type I cloth shall be 7/8 inch plus or minus 1/32 inch and shall contain 24 ends reeded two ends per dent.
- 3.3 Width. The width of the cloth shall be specified by the procuring agency.
- 3.4 Length of roll. Unless otherwise specified the cloth shall be delivered in rolls containing not less than 90 yards (82m) and not more than 110 yards (100m). Each roll shall contain not more than three pieces and no piece shall be less than 10 yards (9m) in length.
- 3.5 Color. The color of the cloth shall be natural.
- 3.6 Identification marking. Identification marking of cloth shall be in accordance with PPP-P-1133.
- 3.7 Workmanship. The product shall be manufactured in accordance with first grade practice to produce material of uniform quality substantially free from defects of any character.

4. QUALITY ASSURANCE PROVISIONS

- 4.1 Inspection tests. All the tests specified herein are classified as inspection tests. The contractor shall furnish all samples and shall be responsible for accomplishing the required inspection tests. When inspection is conducted at the contractor's plant, all inspection and testing shall be under the supervision of the Government inspector. Inspection may be made throughout the entire process of manufacture. Contractors not having Government approved laboratory testing facilities shall engage the services of a Government approved commercial testing laboratory. The contractor shall furnish test reports, in duplicate, showing quantitative results for all tests required by this specification, and signed by an authorized representative of the contractor or laboratory, as applicable.
- 4.2 Inspection. Inspection shall consist of visual inspection and all inspection tests specified herein. Inspection shall be at point of manufacture unless otherwise specified by the procuring agency (see 6.2). In case of acceptance at source, every facility for the necessary inspection shall be afforded the Government inspector.

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4.2.1 Yard-by-yard examination. Thirty yards from each roll in the sample shall be examined on the face side only. The number of rolls from which the sample yardage shall be taken shall be in accordance with the following:

<u>Lot Size (Yards)</u>	<u>Sample Size (Rolls)</u>
500 or less	2
501 to 1500	3
1501 and over	5

All defects, as defined in Section III of FED-STD-4, which are clearly noticeable at normal inspection distance (3 feet) shall be scored and assigned demerit points as listed in 4.2.1.1. No linear yard from any one roll within the sample shall be penalized more than 4 points. The lot shall be unacceptable if the points per 100 square yards of the total yardage examined exceeds 30 points. Point computation for lot quality shall be as follows:

$$\frac{\text{Total points scored in sample size X 3600}}{\text{Width of cloth in inches X total yards inspected}} = \text{Points}$$

4.2.1.1 Demerit points. Demerit points shall be assigned as follows:

For defects up to 3 inches in any dimension	- one point
For defects exceeding 3 inches but not exceeding 6 inches in any dimension	- two points
For defects exceeding 6 inches but not exceeding 9 inches in any dimension	- three points
For defects exceeding 9 inches in any dimension	- four points.

4.3 Rejection. Failure of any sample of cloth to conform to any of the requirements of this specification shall be cause for rejection of the lot represented.

4.4 Atmospheric conditions for testing. Unless otherwise specified, all tests shall be conducted under the atmospheric conditions described in FED-STD-191, Section 4.

4.5 Tests. All tests shall be conducted in accordance with the methods specified in Table II.

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Table II. Test methods.

Tests	Method No. (FED-STD-191)
Thickness	5030
Weight	5041
Breaking strength and elongation	5104
Warp ends per inch	5050
Picks per inch	5050

4.6 Sample for physical testing. A sample, or samples, each at least 1 yard (.9m) long and full width of the cloth, to be furnished at no additional cost to the Government, shall be taken from each lot submitted for acceptance on any contract or order. Each sample shall be suitably tagged to identify it with the roll sampled and such samples shall be subjected to all tests specified herein. When an inspection lot exceeds 5,000 yards (4,572m), and additional sample for each 5,000 yards (4,572m) or fraction thereof of the excess shall be taken.

5. PACKAGING

5.1 Put-up and packing. Put-up and packaging shall be level A or C as specified (see 6.2).

5.1.1 Level A and C. The cloth shall be put-up and packaged in accordance with the applicable requirements of PPP-P-1133.

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-1133.

5.3 Marking. In addition to any special marking required by the contract or order, shipments shall be marked in accordance with PPP-P-1133.

6. NOTES

6.1 Intended use. The cloth covered by this specification is intended for the following use:

- Type I - Manufacture of Radar tow targets.
- Type II - Spring covering in Anti-"G" Suits.

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6.2 Ordering data. Procurement documents shall specify the following:

- a. Title, number and date of this specification.
- b. Type required (see 1.2).
- c. Length required if other than specified (see 3.4).
- d. Point of inspection (see 4.2).
- e. Selection of applicable levels of packaging and packing (see 5.1 and 5.2).

6.3 A material meeting the requirements of type II material is identified as style #6003800, Chicopee Manufacturing Co., Lumite Division, Cornelia, Georgia.

6.4 This specification supersedes MIL-C-4141A(USAF) dated 11 March 1953 and Notice 1 dated 5 June 1973.

Custodian:
Air Force - 11

Preparing Activity:
Air Force - 11

Project No. 8305-F714

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS: This form is provided to solicit beneficial comments which may improve this document and enhance its use. DoD contractors, government activities, manufacturers, vendors, or other prospective users of the document are invited to submit comments to the government. Fold on lines on reverse side, staple in corner, and send to preparing activity. Attach any pertinent data which may be of use in improving this document. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity. A response will be provided to the submitter, when name and address is provided, within 30 days indicating that the 1426 was received and when any appropriate action on it will be completed.

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1. HAS ANY PART OF THE DOCUMENT CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE? IS ANY PART OF IT TOO RIGID, RESTRICTIVE, LOOSE OR AMBIGUOUS? PLEASE EXPLAIN BELOW.

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