

**DEPARTMENT OF COMMERCE**  
**BUREAU OF STANDARDS**  
**George K. Burgess, Director**

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**UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR  
CHEESECLOTH, BLEACHED OR SEMIBLEACHED**

**FEDERAL SPECIFICATIONS BOARD SPECIFICATION No. 253a**

[Revised June 15, 1925]

This specification was officially promulgated by the Federal Specifications Board on December 6, 1924, for the use of the Departments and Independent Establishments of the Government in the purchase of cheesecloth, bleached or semibleached.

**CONTENTS**

	Page
I. Type.....	1
II. Material.....	1
III. General requirements.....	1
IV. Detail requirements.....	1
V. Methods of testing.....	2
VI. Packing and marking.....	3
VII. Additional information.....	3
VIII. General specifications.....	3

**I. TYPE**

The material shall be bleached cheesecloth or semibleached cheesecloth, as specified.

**II. MATERIAL**

The cheesecloth shall be made of cotton, thoroughly cleaned and free from waste, and as free as practicable from avoidable imperfections of manufacture.

**III. GENERAL REQUIREMENTS**

1. **LENGTH OF BOLT.**—A bolt shall be 50, 100, or 200 yards (approximate), as specified.

**IV. DETAIL REQUIREMENTS**

1. **WEAVE.**—The weave shall be plain.
2. **THREAD COUNT.**—The minimum thread count shall be as shown in the table.

3. **WIDTH.**—The width shall be 36 inches when measured in the bolt or roll. A tolerance of plus or minus one-half inch will be permitted.

4. **WEIGHT.**—The weight per square yard shall be as shown in the table. A tolerance of plus or minus 12 per cent will be permitted.

5. **BREAKING STRENGTH (STRIP METHOD).**—The minimum breaking strength shall be as shown in the table.

6. **REQUIREMENT TABLE.**—

Weight per square yard in ounces	Minimum threads per inch		Minimum breaking strength, strip method	
	Warp	Filling	Warp	Filling
			<i>Lbs./in.</i>	<i>Lbs./in.</i>
1.....	20	20	11	5
1½.....	25	25	16	8
2.....	30	30	20	12

## V. METHODS OF TESTING

1. **ATMOSPHERIC CONDITIONS.**—Tests may be made under prevailing atmospheric conditions except in the settlement of disputes where moisture is an influencing factor in tests for breaking strength, thread count, weight, width, length, etc. Such tests shall then be made upon material having normal moisture content, obtained by exposure for at least four hours to an atmospheric condition of 65 per cent relative humidity at 70° F.

2. **BREAKING STRENGTH (STRIP METHOD).**—Six test specimens approximately 6 inches long by 1¼ inches wide shall be cut, three in the direction of the warp and three in the direction of the filling, respectively. Each specimen shall be raveled to exactly 1 inch by taking from each side approximately the same number of threads. Care shall be taken that no two test specimens include the same threads, except for retest as specified below. No specimen for testing shall be taken at less than 8 inches from either selvage.

The machine used shall be of the inclination balance type. The capacity of the machine shall be 50 pounds. The lower or pulling jaw shall travel at a uniform rate of 12 inches per minute under no load. The distance between jaws shall be 3 inches at the start of test. The width of the jaws shall be 1½ inches or more. Jaws shall have a smooth and flat surface with edges slightly rounded to prevent cutting. The results of the tests in each direction shall be averaged. If a specimen slips in the jaw, breaks in the jaw, breaks at the edge of the jaw, or for any reason due to faulty operation the result falls markedly below the general average, the result shall be disregarded, another specimen taken from the same threads, and the result of this break included in the average.

3. **THREAD COUNT.**—The actual number of threads in 3 inches shall be counted for each direction at three different places in the cloth and the results reduced to threads per inch and averaged for each direction.

When the size of the sample permits, these counts shall be taken about 6 inches apart. No warp reading shall be taken at less than 8 inches from the selvage.

4. **WEIGHT PER SQUARE YARD.**—(a) *Method No. 1.*—Take 1 yard of the sample. Weigh, and if the width is not 1 yard, calculate the weight per square yard.

$$\frac{\text{Weight of linear yard}}{\text{Width}} \times 36 = \text{weight of square yard}$$

Average two tests.

(b) *Method No. 2.*—Take a measured portion of the material and weigh. Calculate from this area the weight per square yard.

$$\frac{1,296 \times \text{weight of known area}}{\text{Area in inches}} = \text{weight per square yard}$$

Average three tests.

(c) *Method No. 3.*—Cut from the sample a specimen 2 by 2 inches, using a steel die. No specimen for testing shall be taken at less than 8 inches from either selvage. Weigh on a torsion balance, adjusted to read the weight of the material in ounces per square yard. Average three to five tests.

## VI. PACKING AND MARKING

No details specified.

## VII. ADDITIONAL INFORMATION

The requirements for thread count and breaking strength are fixed as a minimum below which the material may not fall and still give satisfactory service. These may be exceeded at the discretion of the manufacturer.

## VIII. GENERAL SPECIFICATIONS

No details specified.

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