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DDD-T-501c
AUGUST 27, 1953

SUPERSEDING
Int. Fed. Spec. DDD-T-501b (GSA-FSS)
10 December 1951 and
Fed. Spec. DDD-T-501a
3 February 1950

FEDERAL SPECIFICATION

TOWELS, COTTON, FOR GLASSWARE

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 bleached cotton towels primarily intended to be used for drying glassware (see 6.2).

1.2 **Classification.**

1.2.1 *Type and classes.* — Towels covered by this specification shall be of but one type and of the following classes, as specified:

Class A.—Plain weave.
Class B.—Plain weave with 5-harness, 4/1 woven stripe.

1.2.2 *Grade.* — The grade shall be that known commercially as firsts.

2. APPLICABLE SPECIFICATIONS

2.1 The following Federal Specifications, of the issues in effect on date of invitation for bids, form a part of this specification:

V-T-276—Thread; Cotton.
CCC-T-191—Textile Test Methods.
DDD-S-751—Stitches; Seams; and Stitching.

(Copies of Federal Specifications and the Index of Federal Specifications and Standards may be obtained upon application accompanied by check, money order, cash, or Government Printing Office coupons, to the General Services Administration, Business Service Center, Region 3, Seventh and D Streets, SW., Washington 25, D. C. This office will also honor deposit account numbers issued by the Government Printing Office. Prices may be obtained from the Index of Federal Specifications and Standards or from the GSA Regional Offices. Single copies of this specification and other product specifications required for bidding purposes are available without charge at the GSA Regional Offices in Boston, New York, Atlanta, Chicago, Kansas City, Mo., Dallas, Denver, San Francisco, Los Angeles, Seattle, and Washington, D. C.)

2.2 Specifications and other publications applicable only to individual departments are listed in section 7.

3. REQUIREMENTS

3.1 **Materials.** — The bleached toweling from which the towels are made shall be of thoroughly cleaned cotton yarns, free from waste.

3.1.1 *Toweling.*—The toweling shall meet the minimum physical requirements shown in table I.

TABLE I.—*Physical requirements*

Class	Weight per square yard	Yarns per inch		Breaking strength (grab method)	
		Warp	Filling	Warp	Filling
	Ounces			*Pounds*	*Pounds*
A	5.1	54	38	50	50
B	5.5	36	29	50	40

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3.1.2 *Thread.*—The cotton sewing thread used in the hems shall be 40/3 for the needle and 60/3 for the bobbin. It shall meet the requirements for type IA2 of Federal Specification V-T-276.

3.2 **Weave.**

3.2.1 *Class A.* — Class A towels shall be plain woven.

3.2.2 *Class B.*—Class B towels shall be plain woven except for a warp stripe which shall be produced with a 5-harness 4 up, 1 down weave.

3.3 **Design.**

3.3.1 *Class A.*—Class A towels shall have either a checked pattern formed by two colored ends and two colored picks woven at uniform intervals of ½ to 1 inch apart; or a warp stripe pattern consisting of stripes containing two colored ends woven parallel to the length at uniform intervals of ½ to 1 inch.

3.3.2 *Class B.*—Class B towels shall have a woven white stripe (see 3.2.2), 1⅞ to 2 inches wide in the center, extending the entire length of the towel.

3.4 **Color.**—Towels shall be bleached white except for the stripes in class A towels which shall be either red or blue; the red shall be of a shade known commercially as Turkey red.

3.4.1 *Color fastness.*—The colors shall show good fastness to laundering and laundering agents containing active chlorine, and shall not stain the white part of the towels when tested in accordance with 4.3.

3.5 **Size.**

3.5.1 *Class A.*—Class A towels shall be not less than 30 inches long and shall be 16 ± ½ inches wide.

3.5.2 *Class B.*—Class B towels shall be not less than 36 inches long and 22 ± ½ inches wide.

3.6 **Hems.**—All towels shall have a fast selvage on each side and a ¼- to ⅜-inch hem on each end. The hems shall be sewn with not less than 10 stitches per inch using stitch type 301 and stitching type EFb-1 as described in Federal Specification DDD-S-751. The corners of the hems shall be back-stitched at least ½ inch.

3.7 **Marking for identification.**—If marking for identification is specified, it shall be clearly legible, shall show no evidence of bleeding into the surrounding fabric, and no particles of ink shall be visible in the wash water after subjection to laundering and laundering agents containing active chlorine. (See 4.3.)

3.8 **Workmanship.** — The finished towels shall be free of raw edges, clean, and free from defects which affect the appearance or which may impair the serviceability.

4. SAMPLING, INSPECTION, AND TEST PROCEDURES

4.1 **Sampling.**—Not less than four towels of each class shall be taken at random by the purchaser from each 1,000 towels, or fraction thereof, offered for delivery, except that when the shipment exceeds 10,000 towels, 4 towels of each class shall be taken at random from each one-tenth of the shipment.

4.1.1 *Thread.*—A sample of thread approximately 610 yards in length used in hemming the towels delivered shall be furnished by the contractor with each shipment.

4.2 **Inspection.**—Inspection shall be made at the point of delivery or at the factory at the discretion of the purchasing agent.

4.3 **Tests.** — The following methods described in Federal Specification CCC-T-191 shall be used in testing the towels:

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Test	Method No.
Standard Condition	Section 4
Weight per square yard	5041
Yarns per inch	5050
Strength, breaking (cloth)	5100
Colorfastness to laundering	5610
Colorfastness to chlorine bleaching	5600
Identification of cotton	1200
Length of cloth	5010
Width of cloth	5020

4.3.1 *Thread.*—The thread shall be tested as described in Federal Specification V-T-276.

5. PREPARATION FOR DELIVERY

5.1 Packaging. — Commercial packages will be acceptable.

5.2 Packing.—The subject commodity shall be prepared for shipment to permit acceptance by carrier for transportation at the lowest applicable rate, and to afford maximum protection from normal hazards of transportation.

5.3 Marking.—Shipping containers shall be marked with the name and class of the commodity, the quantity contained therein, the name of the contractor, the number of the contract or order, the name and address of the consignee, and the gross weight.

6. NOTES

6.1 Ordering data. — Purchasers should specify the class of towels required and should exercise any desired options offered herein. (See 1.2.1, 3.7, 4.2, and 7.2.5.1.)

6.2 Class B towels are normally procured by the Navy.

Patent notice.—When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use, or sell any patented invention that may in any way be related thereto.

6.3 Transportation description. — The transportation description applicable to these items is:

Dry goods, not otherwise indexed by name.
In bales, boxes, wrapped rolls, or in rattan hampers, locked and sealed.
Carload weight, any quantity.
Truckload weight, any quantity.

7. DEPARTMENTAL REQUIREMENTS

7.1 The following specifications and other publications, of the issues in effect on the date of invitation for bids, and special requirements, form a part of this specification for purchases made under this specification by the respective departments.

7.2 Army, Navy, and Air Force.

7.2.1 *Applicable specifications and standard.*

Military Specifications:

JAN-P-105—Packaging and Packing for Overseas Shipment — Boxes, Wood, Cleated, Plywood.
JAN-P-106—Packaging and Packing for Overseas Shipment — Boxes; Wood, Nailed.
MIL-B-107—Boxes, Wood, Wirebound (Overseas Type).
JAN-P-125—Packaging and Packing for Overseas Shipment — Barrier-Materials, Waterproof, Flexible.
MIL-A-140—Adhesives, Water-Resistant, Waterproof Barrier Materials.
MIL-B-3149—Baling of Clothing and Equipage.

Military Standard:

MIL-STD-105—Sampling Procedures and Tables for Inspection by Attributes.
MIL-STD-129—Marking of Shipments.

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

7.2.2 *Sampling.*—Sampling shall be conducted in accordance with Military Standard MIL-STD-105.

7.2.3 *Inspection.*—Inspection will be made by the Government to determine compliance with requirements of this specification.

7.2.4 *Packaging.*—Towels shall be folded and securely bundled in units of one dozen each and tied with cotton cord or tape to form a neat bundle.

7.2.5 *Packing for domestic or overseas shipment.* — Forty bundles, as specified in 7.2.4, shall be baled for either domestic or overseas shipment in accordance with the requirements of Military Specification MIL-B-3149, except that waterproof barrier liner will not be required in bales for domestic shipment.

7.2.5.1 When specified in the invitation for bids, towels shall be packed in an exterior container designed for type 2 load, and constructed in accordance with the requirements of Military Specifications MIL-B-107, JAN-P-105, or JAN-P-106. Closure and strapping shall comply with the appendix to the applicable box specification. Each box shall be lined with a sealed waterproof barrier (bag) fabricated of material conforming to requirements of Military Specification JAN-P-125. Seams and closures shall be sealed with a waterproof adhesive conforming to the requirements of Military Specification MIL-A-140, in such manner as to provide water resistance equal to that of the body material.

7.2.6 *Marking.* — Interior packages and shipping containers shall be marked in accordance with Military Standard MIL-STD-129.

7.3 Navy.

7.3.1 *Applicable specification and publication.*

Navy Department Specification:

General Specifications for Inspection of Material.

Bureau of Supplies and Accounts Publication:

Navy Handbook on Packing and Materials Handling—Packaging, Packing, and Marking of Clothing, Small Stores, and Textiles.

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

7.3.2 *Inspection procedures.*—General inspection procedures shall be in accordance with General Specifications for Inspection of Material.

7.3.2.1 *Sampling for inspection.*—A random sample of towels shall be selected from each inspection lot of material offered for Government inspection of visual and dimensional characteristics with lot acceptance based on the following sampling inspection requirements in accordance with MIL-STD-105.

TABLE II.—*Sampling for visual and dimensional inspection AQL (approx.) = 2.5 percent defective*

Number of towels in inspection lot	Number of towels in sample	Acceptance number (defectives)	Rejection number (defectives)
110 and under	10	0	1
111 to 300	15	1	2
301 to 500	25	1	2
501 to 800	35	2	3
801 to 1300	50	3	4
1301 and over	75	4	5

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7.3.2.2 *Visual and dimensional inspection.* —Each of the sample towels selected in accordance with table II shall be visually and dimensionally inspected by the Government inspector to verify compliance with the requirements of this specification. Any towels in the sample containing one or more visual or dimensional defects shall be rejected, and if the number of defective towels in any sample exceeds the acceptance number for that sample the lot represented by the sample shall be rejected. Rejected lots may be offered again for Government inspection provided the contractor has repaired or removed all nonconforming towels. The Government inspector shall again select and examine samples from such resubmitted lots to verify compliance with the specification requirements.

7.3.3 *Marking for identification.* — The legend "U.S.N." in block type ⅜ inch wide, 1½ inches high, shall be applied by a dry-transfer process, lengthwise, in the center of the towel. The letters shall be black.

7.3.4 *Laundry test of marking.*—An area 2 by 3 inches, containing the letters "U.S.N." shall be cut from each towel taken under 4.1 and tested for the fastness requirements specified in 3.7.

7.3.5 *Packaging, packing, and marking shipments.* — Shipments shall be packed in accordance with the requirements of the Navy Handbook on Packing and Materials Handling—Packaging, Packing, and Marking of Clothing, Small Stores, and Textiles.

NAVY INTEREST: Sh S

This specification is a part of Section IV, Part 5, of the Federal Standard Stock Catalog.

Copies of this specification may be purchased for 5 cents.