

[INCH-POUND]

A-A-1671B  
August 10, 1990  
 SUPERSEDING  
 A-A-1671A  
 August 10, 1982

### COMMERCIAL ITEM DESCRIPTION

#### TAPE, GUMMED (PAPER, REINFORCED, LAMINATED)

The General Services Administration, Federal Supply Service, has authorized the use of this Commercial Item Description.

#### CLASSIFICATION:

This description covers Gummed Reinforced Paper tape, of the following types, classes, and styles:

- Type I - laminated with an asphalt or asphaltic type material.
- Type II - laminated with a water resistant nonasphaltic type material.
- Class 1 - strippable, suitable for use on food packages.
- Class 2 - nonstrippable, suitable for closure of fiberboard boxes for domestic shipment and storage, and in securing wrappers of packages.
- Style A - 2 way reinforcement.
- Style B - 3 way reinforcement.

#### 1. SALIENT CHARACTERISTICS:

A. The paper used in fabricating the tape shall be kraft paper, with a basis weight of 30 pounds (24 X 36 - 500) ± 5 percent prior to gumming. Testing shall be in accordance with TAPPI T410.

B. The adhesive used shall not have an offensive odor and shall be nontoxic. The adhesive shall be capable of being quickly activated by water, and shall cover the entire area of the side to which it is applied. The tape shall pass the adhesiveness test under section 2 (Quality Assurance).

C. The two-way tape shall be reinforced by lengthwise and crosswise reinforcing fibers spaced not less than two fibers per inch. If a diamond pattern is employed, the spacing between the parallel sides of the diamond must not be more than 1 inch. The three-way tape shall be reinforced in both the machine direction and the cross direction with reinforcing fibers spaced not less than two fibers per inch, in addition to the diamond patterned reinforcement described above.

**DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.**

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D. Reinforcing fibers shall be composed of fiber glass. The finished tape shall conform to the physical properties shown in table I.

TABLE I. Physical Properties  
Tensile Strength  
Pounds/inch width  
Minimum

<u>Machine Direction</u>	<u>Cross Machine Direction</u>	<u>Test Method</u>
75	45	T 404
✓ Requirement not applicable for tape that is less than 3 inches in width.		

E. Type I, Only - The asphalt or asphaltic type laminating material shall have a softening point of 180° F. to 200° F. before being applied to the tape, and shall be tested in accordance with ASTM test method D 36.

F. Type II, Only - Nonasphaltic type laminating material shall be water resistant, flexible, and nonstaining. Water resistance of the finished tape shall be tested in accordance with TAPPI UM 575.

G. The tape shall be furnished in roll form with dimensions as specified. A tolerance of + 1/16 inch is allowed for the width. For the length, the specified dimension shall be considered the minimum allowed. The end of the outer leaf of the tape shall be adhered to the next layer to prevent unwinding.

H. Each roll of tape shall be furnished in one continuous length, and not more than three splices shall be permitted in any one roll. All splices shall be evenly made. The tape shall pass the performance requirement under section 2 (Quality Assurance).

I. A core is not required.

J. Workmanship: The tape shall be clean and free from pinholes, tears, cuts, sharp creases, wrinkles, and folds. The tape shall be cleanly cut without nicks or ragged edges and shall be free from any other defects which may adversely affect its utility for the purpose intended.

## 2. QUALITY ASSURANCE:

A. Each lot of tape shall be inspected for conformance to the requirements of this Commercial Item Description. For inspection purposes, a lot shall consist of all tape manufactured under the same conditions. Sampling and acceptance shall be in accordance with MIL-STD-105, unless otherwise specified.

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B. Testing requirements - Inspection Level S-1 with an Acceptable Quality Level (AQL) of 4.0 percent defective. The sample unit shall be one roll. TAPPI tests shall be performed in accordance with TAPPI T400. The tests shall be as follows:

TESTS	METHOD	REQUIREMENT LOCATION
Basis weight	TAPPI T410	Para. 1A
Adhesiveness	See para. 2C	Para. 1B
Tensile Strength	TAPPI T404	Para. 1D & Table I
(Type I) Softening Point	ASTM D36	Para. 1E
(Type II) Water Resistance	TAPPI UM 575	Para. 1F
Performance	See para. 2D	Para. 1H

C. Adhesiveness test:

Testing conditions: This test shall be performed in an atmosphere maintained at standard conditions as specified in TAPPI method T 402. The test paper shall be conditioned to equilibrium with these conditions prior to testing. The tape specimens shall not be conditioned prior to testing.

Test: Cut four (4) 12" X 6" specimens of standard reference material, as specified in ASTM D 3654<sup>2/</sup>, two each in machine direction (MD) and cross direction (CD). Cut and completely moisten 4 randomly selected tape test specimens 12 inches long by the full tape width, utilizing an automatic dispenser conforming to CID A-A-79. Fold over one inch of the tape end so that the adhesive sides are together to form a one inch tab to facilitate tape removal efforts. At the end of 15 seconds, apply each tape specimen to the test paper, 2 in MD and 2 in CD of the standard reference material. Roll the tape once in each direction with a soft rubber covered hinged iron roller, weighing 16 pounds  $\pm$  1/4 lb., 3-1/2 in.  $\pm$  1/8 in. wide and having an overall diameter of 5 in.  $\pm$  1/8 in. at a rate of 12 inches/min. Within 5 seconds after the tape is applied on the paper, gently lift the tab to expose not more than 3 inches of the tape (one MD and one CD) and observe the tackiness of the gum. The gum shall show a pronounced tackiness. (The portion of the specimens lifted to observe tackiness shall not be reapplied.) After twenty-four hours elapsed time, determine the ease of removal of the specimens (2 MD and 2 CD). The adhesive quality shall be considered satisfactory if:

<sup>2/</sup> Mosinee Paper Corporation, Mosinee, Wi. 54455, telephone (715) 693-2111. Mosinee paper, 767, 120# basis wt., neutral ph paper may be used as a substitute for the standard reference material 1810, specified in ASTM D 3654.

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(For Class 1) - the tape cannot be removed from the test paper without leaving a thin film of paper from the tape on the test paper over 75% of the taped area.

(For Class 2) - the tape cannot be removed without separation of either the tape and/or the standard reference material over 90% of the taped area.

D. Performance - One roll of tape shall be placed in an automatic dispenser conforming to CID A-A-79 and dispensed in accordance with the operating instructions of the dispenser. The tape shall be considered satisfactory if there are no jams of the machine due to the tape.

E. Visual Characteristics - Inspection Level S-2 with an Acceptable Quality Level (AQL) of 4.0 percent defective. The sample unit shall be one roll.

F. Dimensional Characteristics - Inspection Level S-1 with an Acceptable Quality Level (AQL) of 4.0 percent defective. The sample unit shall be one roll.

G. Packaging, Packing, Marking, and Palletization - Inspection Level S-2 with an Acceptable Quality Level (AQL) of 4.0 percent defective. The sample unit shall be one fully prepared shipping container.

3. PACKAGING, PACKING, LABELING, MARKING, AND PALLETIZATION:

Packaging, packing, labeling, marking and, palletization shall be as specified in the contract or order.

4. REFERENCED DOCUMENTS:

The issue of each document in effect on the date of the solicitation shall be used to determine compliance with these requirements.

Commercial Item Description A-A-79 is available from:

General Services Administration Business Service Centers in Boston, MA; New York, NY; Washington, DC; Atlanta, GA; Chicago, IL; Kansas City, MO; Fort Worth, TX; Denver, CO; San Francisco, CA; and Auburn, WA.

TAPPI test methods T400, T402, T404, T410, and UM 575 are available from:

Technical Association of the Pulp and Paper Industry  
Technology Park/Atlanta, P.O. Box 105113  
Atlanta, GA 30348  
(404) 446-1400

MIL-STD-105 is available from:

Standardization Documents Order Desk  
Building 4D  
700 Robbins Avenue  
Philadelphia, PA 19111-5094

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ASTM test method D36 is available from:

American Society for Testing and Materials  
1916 Race Street  
Philadelphia, PA 19103

5. A. ORDERING DATA:

Ordering activities should specify the following:

- A. Type.
- B. Class.
- C. Style.
- D. Length.
- E. Width.
- F. Specific packaging, packing, labeling, marking and, palletization requirements.

B. ITEM IDENTIFIERS/REFERENCE PART NUMBER SYSTEM (FOR CATALOGING USE ONLY)

AA1671-2 A 1 C 2 : This example describes a Nonasphaltic, water  
: resistant, strippable, 2 way reinforced gummed  
: paper tape, 1,000 feet in length and two inches  
: wide.

WIDTH 1 - 1-1/2 INCH  
2 - 2 INCH  
3 - 3 INCH

LENGTH A - 375 FEET  
B - 450 FEET  
C - 1,000 FEET

STYLE 1 - 2 WAY REINFORCEMENT  
2 - 3 WAY REINFORCEMENT

CLASS A - 1 STRIPPABLE  
B - 2 NONSTRIPPABLE

TYPE 1 - I ASPHALTIC/ASPHALTIC TYPE LAMINATE  
2 - II NONASPHALTIC LAMINATE/WATER RESISTANT

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**MILITARY INTERESTS**

**USER ACTIVITIES**

Navy - SA, CG, SH

**PREPARING ACTIVITY**

GSA - FSS

**REVIEW ACTIVITY**

Army - ME