

[INCH-POUND]  
A-A-59300  
14 September 1998  
SUPERSEDING  
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## COMMERCIAL ITEM DESCRIPTION

### INSULATION TAPE, NONADHERING, GLASS FABRIC, POLYTETRAFLUOROETHYLENE COATED

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

1. **SCOPE.** This commercial item description (CID) covers polytetrafluoroethylene-coated, glass fabric, non-adhering, insulation tape. The insulation tape described herein is intended for use in electrical insulation at temperatures up to 260°C (500°F).

2. **SALIENT CHARACTERISTICS.** The insulation tape shall not have adhesive backing. The base material used in the manufacture of the insulation tape shall be a woven glass fabric. The glass fabric shall be coated on both sides with polytetrafluoroethylene (see 6.4.1) resin. The polytetrafluoroethylene-resin coating shall penetrate and adhere to the fabric. The polytetrafluoroethylene-resin coating shall have a smooth surface, substantially free of wrinkles, creases, blisters, and other imperfections.

2.1 **Classification.** The insulation tape shall be furnished in the thicknesses and widths, and with the tolerances specified in tables I and II. The tape shall be furnished in 36-, 72-, or 100-yard rolls. A tolerance of 1 foot per 36 yards is allowable. The thickness and width to be furnished shall be as specified (see 6.2).

Beneficial comments, recommendations, additions, deletions, clarifications, etc., and any data which may improve this document should be sent to: Defense Supply Center Richmond (DSCR), 8000 Jefferson Davis Highway, Richmond, VA 23297-5610.
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AMSC N/A

FSC 5970

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TABLE I. Thickness.

Classification	Nominal thickness (inch)	Tolerance (inch)
1	0.002	± 0.0005
2	0.003	± 0.0005
3	0.005	± 0.001
4	0.007	± 0.001
5	0.010	± 0.0015
6	0.012	± 0.0015
7	0.015	± 0.002

TABLE II. Width.

Classification	Nominal width (inch)	Tolerance (inch)
A	1/2	± 1/32
B	3/4	± 1/32
C	1	± 1/32
D	1-1/2	± 1/16

2.2 Breaking and dielectric strength. The breaking strength and dielectric strength for the various thicknesses shall be as specified in table III.

TABLE III. Mechanical and electrical properties.

Thickness (inch)	Breaking strength, minimum (pound per inch width)	Dielectric strength, minimum (volts per mil)
0.002	20	600
0.003	40	600
0.005	70	500
0.007	100	500
0.010	150	400
0.012	175	400
0.015	200	400

2.2.1 Dielectric strength after heating. After exposure to a temperature of  $150 \pm 5^{\circ}\text{C}$  ( $302^{\circ}\text{F}$ ) for at least 12 hours, the dielectric strength shall not be less than 80 percent of the value determined prior to exposure.

2.3 Workmanship. The insulating tape shall be free of any defects affecting its appearance or serviceability. There shall be no visible overlap of tape edges or separation between layers.

3. **REGULATORY REQUIREMENTS.** The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR). All finished products shall be new and unused and shall meet all the same salient characteristics described in herein.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

4.2 Market acceptability. Similar items must have been sold to the commercial market or to the Government.

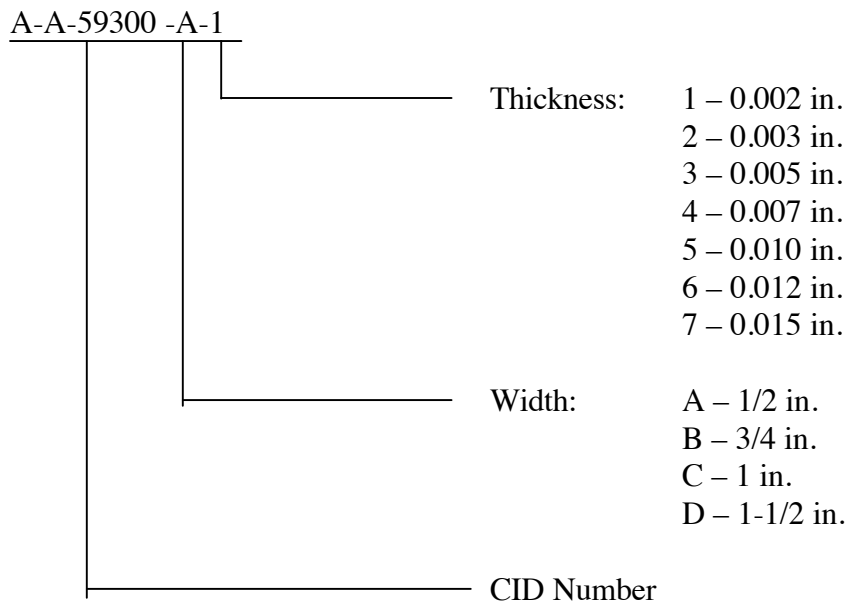
5. **PACKAGING.** Preservation, packing, and marking shall be as specified in the contract or order.

#### 6. NOTES

6.1 Ordering data. Acquisition documents must specify the following:

- a. Title, number, and date of this CID.
- b. Tape thickness and width (see 2.1).

6.2 Part identification number (PIN). The following part identification numbering procedure is for government purposes and does not constitute a requirement for the contractor:



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6.3 Referenced documents. Documents referenced in this CID may be obtained from the following addresses:

a. ASTM documents may be obtained from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428.

b. Federal documents may be obtained from the Superintendent of Documents, US Government Printing Office, Washington, DC 20402.

6.4 Definitions.

6.4.1 Polytetrafluoroethylene. A totally fluorinated polymer, developed by DuPont and sold under the registered trademark Teflon<sup>®</sup>. It has outstanding chemical resistance being unaffected by almost all chemicals and also has a very high oxygen index (i.e., is inherently non-flammable). It has a very low coefficient of friction and is stable to high temperatures.

6.5 Recommended test methods. For information about test methods see ASTM D902-95, Standard Test Methods for Flexible Resin-coated Glass Fabrics and Glass Fabric Types Used for Electrical Insulation.

6.6 National stock numbers (NSNs). The following NSNs correspond to this CID. This list may not be indicative of all possible NSNs associated with A-A-59300.

NSNs

5970-00-138-8825

5970-00-181-0306

5970-00-226-9722

5970-00-883-1161

5970-00-935-0098

MILITARY INTERESTS:

Custodians:

Army - CR

Navy - OS

Air Force - 85

Preparing Activity:

DLA - GS

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Air Force - 82, 99