

**AEROSPACE
MATERIAL
SPECIFICATION**

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Superseding AMS3634D

Tubing, Polyolefin Plastic, Electrical Insulation
Selectively Crosslinked, Semi-Rigid, Heat-Shrinkable

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE:

1.1 Form:

This specification covers an irradiated, thermally-stabilized, modified-polyolefin plastic in the form of dual-wall tubing.

1.2 Applications:

This tubing has been used typically as a semi-rigid, electrical insulation tubing whose diameter can be reduced to a predetermined size by heating to temperatures higher than 135 °C (275 °F), but usage is not limited to such applications. Tubing is not flame-retardant and will burn slowly. This tubing is stable for continuous exposure from -55 to +110 °C (-67 to +230 °F).

1.3 Safety-Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The applicable issue of referenced publications shall be the issue in effect on the date of the purchase order.

2.1 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 471 Rubber Property-Effect of Liquids

ASTM D 2671 Heat-Shrinkable Tubing for Electrical Use

ASTM G 21 Determining Resistance of Synthetic Polymeric Materials to Fungi

2.2 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-H-5606 Hydraulic Fluid, Petroleum Base, Aircraft, Missiles and Ordnance

MIL-T-5624 Turbine Fuel, Aviation, Grades Jp-4 and Jp-5 and Jp-5/Jp-8 St

MIL-STD-2073-1 DOD Materiel, Procedures for Development and Application of Packaging Requirements

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a thermally-stabilized, modified-polyolefin plastic, selectively cross-linked by irradiation to provide a non-meltable, shrinkable, outer wall and an inner wall capable of melting and adhering to itself.

3.2 Color:

Shall be black, unless otherwise ordered.

3.3 Properties:

Tubing shall conform to the requirements shown in Table 1; reported values shall be the average of all specimens tested for each requirement. Except as otherwise specified herein, tests shall be performed in accordance with ASTM D 2671, insofar as practicable. Tubing shall be tested in the expanded form (as supplied), unless otherwise specified herein.