

AEROSPACE MATERIAL SPECIFICATION



AMS3611

REV. E

Issued	1964-01
Revised	1994-02
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Superseding AMS3611D	

Plastic Sheet, Polycarbonate
General Purpose

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 a polycarbonate resin in the form of sheet.

1.2 Application:

This sheet has been used typically for parts, such as aircraft heating ducts, cabin liners, fairings, storage boxes, and, decorative laminates, requiring high impact strength, high strength, and dimensional stability, but usage is not limited to such applications. This material is sensitive to some solvents; each application must be evaluated on its own merits.

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, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959 or www.astm.org.

ASTM D 149	Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies
ASTM D 150	A-C Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulating Materials
ASTM D 256	Impact Resistance of Plastics and Electrical Insulating Materials
ASTM D 257	D-C Resistance or Conductance of Insulating Materials
ASTM D 570	Water Absorption of Plastics
ASTM D 635	Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position
ASTM D 638	Tensile Properties of Plastics
ASTM D 638M	Tensile Properties of Plastics (Metric)
ASTM D 648	Deflection Temperature of Plastics Under Flexural Load
ASTM D 790	Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
ASTM D 790M	Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (Metric)
ASTM D 792	Specific Gravity (Relative Density) and Density of Plastics by Displacement
ASTM D 1637	Tensile Heat Distortion Temperature of Plastic Sheet

2.2 U.S. Government Publications:

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

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

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a polycarbonate resin with fillers, plasticizers, and modifiers necessary to meet the requirements of 3.2 and 3.3.

3.2 Color:

Shall be translucent with a water-white or light straw color.

3.3 Properties:

Sheet shall conform to the requirements shown in Table 1 and 3.3.12; tests shall be performed on the sheet supplied and in accordance with specified ASTM methods, insofar as practicable.