



AEROSPACE MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

485 Lexington Ave., New York, N. Y. 10017

AMS 3611A

Superseding AMS 3611

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PLASTIC SHEET

Polycarbonate

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.
2. **FORM:** Flat, rigid, heat formable sheet.
3. **APPLICATION:** Primarily for aircraft heating ducts, cabin liners, fairings, storage boxes, and decorative laminates.
4. **MATERIAL:** Shall be polycarbonate resin with any necessary fillers, modifiers, and plasticizers to meet the requirements of this specification.
5. **TECHNICAL REQUIREMENTS:**
 - 5.1 **General:**
 - 5.1.1 **Appearance:** Unless otherwise specified, a water-white or light straw, transparent product shall be supplied.
 - 5.1.2 **Properties:** The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the issue of specified ASTM methods listed in the latest issue of AMS 2350, insofar as practicable.

5.2.1 Ultimate Tensile Strength, psi, min	8,000	ASTM D638, Speed C
5.2.2 Elongation at Rupture, %, min	60	ASTM D638, Speed C
5.2.3 Modulus of Elasticity in Tension, psi, min	285,000	ASTM D638, Speed B
5.2.4 Heat Distortion:		
5.2.4.1 Material Up to 0.060 In., Incl, Thick:		
5.2.4.1.1 Tensile Heat Distortion Temperature at 50 psi Tensile Stress and 2% Extension, min	284 F (140 C)	ASTM D1638
5.2.4.2 Material Over 0.060 In. Thick:		
5.2.4.2.1 Deflection Temperature, 264 psi fiber stress, min	270 F (132.2 C)	ASTM D648
5.2.5 Impact Strength		
5.2.5.1 Unnotched at 77 F (25 C) ft-lb per in., min	60	ASTM D256, Method A (Specimen size 0.500 x 0.125 in.)
5.2.6 Flexural Strength, psi, min	11,000	ASTM D790