



# 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.
    - 5.2 **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	<b>Heat Distortion:</b>		
5.2.4.1	<b>Material Up to 0.060 In., Incl, Thick:</b>		
∅	Tensile Heat Distortion Temperature at 50 psi Tensile Stress and 2% Extension, min	284 F (140 C)	ASTM D1638
5.2.4.2	<b>Material Over 0.060 In. Thick:</b>		
	Deflection Temperature, 264 psi fiber stress, min	270 F (132.2 C)	ASTM D648
5.2.5	<b>Impact Strength</b>		ASTM D256, Method A
∅	Unnotched at 77 F (25 C) ft-lb per in., min	60	(Specimen size 0.500 x 0.125 in.)
5.2.6	Flexural Strength, psi, min	11,000	ASTM D790

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