

AERONAUTICAL MATERIAL SPECIFICATION

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Revised

SYNTHETIC RUBBER SHEET, COTTON FABRIC REINFORCED Weather Resistant - Chloroprene Type

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. APPLICATION: Primarily for parts, such as gaskets, seals and chafing strips, requiring resistance to weather, moderate heat, water, and lubricating oil.
3. MATERIAL AND FABRICATION: Sheet shall consist of a single ply of woven cotton fabric impregnated and coated on both sides with a chloroprene type synthetic rubber compound. Thickness of coating shall be substantially uniform on both sides of the sheet.
4. TECHNICAL REQUIREMENTS:
 - 4.1 General:
 - 4.1.1 Color: Shall be black. Sheet having evenly dusted surfaces will be acceptable.
 - 4.1.2 Weathering: When specified, sheet shall have weather resistance acceptable to the purchaser as determined by a procedure agreed upon by purchaser and vendor.
 - 4.1.3 Corrosion: Sheet shall not have a corrosive or other deleterious effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
 - 4.2 Properties: The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with listed ASTM methods, insofar as practicable.

| <u>Property</u> | <u>Value</u> | | <u>Test Method</u> |
|--|--------------|----------------|--------------------|
| 4.2.1 <u>As Received</u> : | | | ASTM D751-46T |
| Breaking Strength, Grab Method, lb, min Nominal Thickness, in. | <u>Warp</u> | <u>Filling</u> | |
| 0.008 | 40 | 40 | |
| 0.025 | 90 | 90 | |
| 0.035 | 250 | 170 | |
| 0.050 | 250 | 170 | |

Hydrostatic Pressure Resistance
at 20 psi No leaks in 1 hr
Adhesion, lb per in. width, min 4.0

Note: In any case where it is impossible to determine an actual value for adhesion because the bond of the coating to the fabric is of greater strength than the coating itself, the sample will be considered to have passed the adhesion test.

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4.2.2 Non-Aromatic Fuel Resistance: ASTM D471-46T
 (Immediate Deteriorated Properties)
 Thickness Change, % 0 to +35 Medium: ASTM Fuel No. 1
 Surface Tackiness None Temperature: 70-85 F
 Adhesion, lb. per in. width, min 3.0 Time: 70 hr
 Note: In any case where it is impossible to determine an actual value for adhesion because the bond of the coating to the fabric is of greater strength than the coating itself, the sample will be considered to have passed the adhesion test.

4.2.3 Processing Oil Resistance: ASTM D471-46T
 (Immediate Deteriorated Properties)
 Thickness Change, % 0 to +20 Medium: ASTM Oil No. 3
 Surface Tackiness None Temperature: 212 F + 2
 Adhesion, lb. per in. width, min 4.0 Time: 70 hr
 Note: In any case where it is impossible to determine an actual value for adhesion because the bond of the coating to the fabric is of greater strength than the coating itself, the sample will be considered to have passed the adhesion test.

4.2.4 Dry Heat Resistance: ASTM D573-48
 Surface Hardening None
 Bend (flat) No Cracks Temperature: 212 F + 2
 Time: 70 hr

4.2.5 Low Temperature Brittleness: Pass ASTM D736-46T
 Temperature: -40 F + 2
 Time: 5 hr

5. **QUALITY:** The product shall be uniform in quality and condition, clean, smooth, and free from foreign materials and from defects detrimental to fabrication, appearance, or performance of parts.

6. **SIZES AND TOLERANCES:** Unless otherwise specified, sheet shall be supplied in nominal thicknesses and widths, and to the tolerances, given below:

| Nominal Size, inches | | Tolerance, inch | |
|----------------------|-------|-----------------|-------|
| Thickness | Width | Thickness | Width |
| 0.008 | 40 | plus | minus |
| 0.025 | 41 | plus | minus |
| 0.035 | 42 | plus | minus |
| 0.050 | 42 | plus | minus |

7. **REPORTS:**

- 7.1 Unless otherwise specified, the vendor shall furnish with each shipment three copies of a report stating that the product meets the requirements of this specification. This report shall include the purchase order number, material specification number, vendor's compound number, form or part number, and quantity.
- 7.2 Unless otherwise specified, the vendor of finished or semi-finished parts shall furnish with each shipment three copies of a report showing the purchase order number, contractor or other direct supplier of material, part number, and quantity. When material for making parts is produced or purchased by the parts vendor, that vendor shall inspect each lot of material to determine conformance to the requirements of this specification, and shall include in the report a statement that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.