AERONAUTICAL MATERIAL SPECIFICATION

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SILICONE RUBBER SHEET - GLASS FABRIC REINFORCED

1. ACKNOWLEDGMENT: A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.

2. FORM: Calendered sheet, or as ordered.

3. APPLICATION: Primarily intended for gasketing or sealing purposes requiring a thin, resilient, non-porous sheet material suitable for operating at temperatures from -65 to +400 F. The material is resistant to deterioration by weathering and engine oil and remains flexible over the temperature range noted. This material is not normally suitable for use in contact with fuels due to excessive swelling.

4. MATERIAL AND FABRICATION: Sheet shall consist of a single ply of woven glass fabric impregnated and coated on both sides with a silicone rubber compound.

5. TECHNICAL REQUIREMENTS:

5.1 General:

5.1.1 Condition: Unless otherwise specified, a suitably cured product shall be furnished.

5.1.2 Weathering: When specified, the product shall have weather resistance acceptable to the purchaser as determined by a procedure agreed upon by purchaser and vendor.

5.1.3 Corrosion: The product 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.

5.1.4 Coating: Shall be substantially uniform in thickness on both sides of the fabric.

5.2 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:

Property	Value	Test Method
5.2.1 As Received:		ASTM D751-46T
5.2.1.1 Breaking Strength lb per in., min		Cut Strip Method
Nominal Thickness, in.		
0.010	70	
0.017	200	
0.032	400	

	Property	Value		Test Method
5.2.1.2	Thread Count, per in., min			
	Nominal Thickness, in.	Warp	Fill	
	0.010	60	64	
	0.017	42	32	
	0.032	20	16	
5.2.1.3	Hydrostatic Pressure Resistance	No leaks		Method B Pressure 20 psi Time 1 hr
5.2.1.4	Adhesion, lb per in. width, min	2.0		

Note: If it is impossible to strip adhesion test specimens so as to make the test properly, the sheet may be considered satisfactory.

5.2.2	Lubricating Oil Resistance:		ASTM D471-46T
	(Immediate Deteriorated Properties)		
	Volume Change (Method A), %	0 to + 10	Medium: ASTM Oil No. 1
	Decomposition	None	Temperature: 350 F± 2
	Surface Tackiness	None	Time: 70 hr
5.2.3	Dry Heat Resistance:		ASTM D865-48T
	Bend (flat)	No cracking or checking	Temperature: 450 F± 5 Time: 24 hr
5.2.4	Low Temperature Brittleness:		ASTM D736-46T
	Flex	Pass	Temperature: -70 F±2
	Delamination	None	Time: 5 hr

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

7. SIZES AND TOLERANCES: Unless otherwise specified, coated fabric shall be supplied in nominal thicknesses and widths, and to the tolerances, given below:

Nominal Size, inches		Tolerance, inch	
Thickness	Width	Thickness plus and minus	Width plus and minus
0.010	36.0	0.001	1.0
0.017	36.0	0.002	1.0
0.032	36.0	0.008	1.0