AERONAUTICAL MATERIAL SPECIFICATION

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SYNTHETIC RUBBER
Weather Resistant, Chloroprene Type (55-65)

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

2. FORM: Sheet, strip, tubing, molded shapes, extrusions, or as ordered.

3. APPLICATION: Primarily for parts, such as window channels, bumper pads, chafing strips, and weather seals, requiring resistance to weather.

4. TECHNICAL REQUIREMENTS:

4.1 General:

Ø 4.1.1 Condition: Unless otherwise specified, a suitably cured product shall be furnished.

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

4.1.3 Corrosion: The product shall not have a corrosive effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.

4.2 Properties: Unless otherwise specified, 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.

4.2.1 As Received:

4.2.1.1	Hardness, Durometer "A" or equiv.	60 ± 5	
4.2.1.2	Tensile Strength, psi, min	1500	ASTM D412-51T, Die B or C
4.2.1.3	Elongation, %, min	250	ASTM D412-51T, Die B or C
4.2.2	Processing Oil Resistance: (Immediate Deteriorated Properties)		ASTM D471-52T Medium: ASTM Oil No. 3 Temperature: 212 F ± 2 Time: 70 hr
4.2.2.1	Tensile Strength Reduction, %, max (based on area before immersion)	55	
4.2.2.2	Elongation Reduction, %, max	45	
Ø 4.2.2.3	Volume Change (Method A), %	+40 to +100	
4.2.2.4	Decomposition	None	
4.2.2.5	Surface Tackiness	None	

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4.2.3	Dry Heat Resistance:		ASTM D573-53 Temperature: 212 F ± 2 Time: 70 hr
4.2.3.1	Hardness Change, Durometer "A" or equiv.	0 to +10	
4.2.3.2	Tensile Strength Reduction, %, max	25	
4.2.3.3	Elongation Reduction, %, max	40	
Ø4.2.3.4	Bend (flat)	No cracking or checking	
4.2.4	Compression Set:		ASTM D395-53T, Method B Temperature: 212 F ± 2 Time: 70 hr Compressed to 0.350 in. thick
4.2.4.1	Per cent of original deflection, max	72	
4.2.4.2	Per cent of original thickness, max	22	
4.2.5	Low Temperature Brittleness:	Pass	ASTM D736-46T (See Note 1) Temperature: -40 F ± 2 Time: 5 hr

Note 1. To be specified only until satisfactory replacement test and values are established.

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. TOLERANCES: Unless otherwise specified, the following tolerances apply:

6.1 Sheet and Strip:

Nominal Thickness Inch	Tolerance, Inch Plus and Minus
1/8 and under	1/64
Over 1/8 to 1/2, incl	1/32
Over 1/2	3/64

6.2 Tubing:

6.2.1 Ø	Nominal OD or ID (not both), Inch	Tolerance Plus and Minus	Ovality (See Note 2)
	1/2 and under	0.020 in.	10%
	Over 1/2 to 1, incl	0.030 in.	15%
	Over 1	4%	15%

Note 2. Ovality applies to tubing ordered in straight lengths with wall thickness of 1/16 in. and over, and shall be computed from the difference of the minor and major axis diameter measurements, taken at the same location on the tube, expressed as a percentage of the nominal diameter.

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