

AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
29 West 39th Street
New York City

AMS 3241A

Issued 6-1-49

Revised 3-1-51

SYNTHETIC RUBBER

Weather Resistant, Chloroprene Type (55-65)

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:

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

4.1.2 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.

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.

	Property	Value	Test Method
4.2.1	<u>As Received</u> :		
	Hardness, Durometer "A" or equiv.	60 + 5	
	Tensile Strength, psi, min	1500	ASTM D412-49T
	Elongation, %, min	250	ASTM D412-49T
4.2.2	<u>Processing Oil Resistance</u> :		ASTM D471-49T
	(Immediate Deteriorated Properties)		
	Tensile Strength Reduction, %, max	55	Medium: ASTM Oil No. 3
	(based on area before immersion)		Temperature: 212 F + 2
	Elongation Reduction, %, max	45	Time: 70 hr
	Volume Change (Method A), %	+50 to +120	
	Decomposition	None	
	Surface Tackiness	None	

Section 4.2 of the SAE Technical Board rules provides that: "All technical reports, including standards, specifications, and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement to adhere to a standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and approving technical reports, the Board and its Committees will not investigate or consider patents which may apply to the subject matter. Prospective users of the report are responsible for protecting themselves against liability for infringement of patents."

Property	Value	Test Method
4.2.3 <u>Dry Heat Resistance:</u>		ASTM D573-48
Hardness Change, Durometer "A" or equiv.	0 to +10	
Tensile Strength Reduction, %, max	25	Temperature: 212 F + 2
Elongation Reduction, %, max	40	Time: 70 hr
Bend (flat)	No cracks	
4.2.4 <u>Compression Set:</u>		ASTM D395-49T, Method B
Ø		Temperature: 212 F + 2
Per cent of Original Deflection, max	72	Time: 70 hr
Per cent of Original Thickness, max	22	Compressed to 70% of original thickness
4.2.5 <u>Low Temperature Brittleness:</u>	Pass	ASTM D736-46T
		Temperature: -40 F + 2
		Time: 5 hr
5. <u>QUALITY:</u> 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. <u>TOLERANCES:</u> Unless otherwise specified, the following tolerances apply:		
6.1 <u>Sheet and Strip:</u>		
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 <u>Tubing:</u>		
Nominal Wall Thickness Inch		Tolerance Plus and Minus
Under 1/16		0.005 inch
1/16 and over		10%
7. <u>REPORTS:</u> 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.		
8. <u>IDENTIFICATION:</u> Unless otherwise specified, all material shall be identified and marked in accordance with the latest issue of AMS 2810.		