

AERONAUTICAL MATERIAL SPECIFICATION

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

AMS 3302

Issued 11-1-48

Revised

SILICONE RUBBER Heat and Weather Resistant (45-55)

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **FORM:** Molded shapes, sheet, tubing, or as ordered.
3. **APPLICATION:** Primarily for soft rubber-like parts required to operate or seal at temperatures from -65 to +400 F. Silicone rubber is resistant to deterioration by weathering and engine oil, and remains flexible over the temperature range noted; however, the fuel resistance and tear resistance are low.

4. **TECHNICAL REQUIREMENTS:**

4.1 **General:**

- 4.1.1 **Condition:** Unless otherwise specified, a fully 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 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:

<u>Property</u>	<u>Value</u>	<u>Test Method</u>
4.2.1 As Received:		
Hardness, Durometer "A" or equiv.	50 ± 5	
Tensile Strength, psi, min	250	ASTM D412-41 Die B
Elongation, %, min	200	

SAE Technical Board rules provide that: "All technical reports, including standards, approved 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 SAE standards 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."

6.1 Molded Sheet :

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

6.2 Molded Tubing:

Nominal Wall Thickness Inch	Tolerance Plus and Minus
Less than 1/16	0.005 in.
1/16 and over	10%

7. REPORTS:

7.1 Unless otherwise specified, the vendor shall furnish with each shipment three copies of a notarized 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 notarized 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 certification that the material conforms, or shall include copies of laboratory reports showing the results of tests to determine conformance.

8. IDENTIFICATION: Unless otherwise specified, all material shall be identified and marked in accordance with the latest issue of AMS 2810.

9. PACKAGING:

9.1 Packaging shall be accomplished in such a manner as to ensure that the product, during shipment and storage, will not be permanently distorted, and will be protected against damage due to weathering or any normal hazard.

9.2 Each package shall be permanently and legibly marked in accordance with the latest issue of AMS 2810.