

AEROSPACE MATERIAL SPECIFICATIONS

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AMS 3196A

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SILICONE RUBBER SPONGE Closed Cell Firm

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, molded shapes, and extrusions.
3. **APPLICATION:** Primarily for general applications requiring the use of closed cell firm sponge rubber that will be flexible from -75 to +205 C (-103 to +401F). Compression set may be high at the higher temperatures.
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 effect on other materials when exposed to conditions normally encountered in service. Discoloration of metal shall not be considered objectionable.
 - 4.1.3 **Finish:** Unless otherwise specified, the top and bottom surfaces of sheet and strip and the exterior surfaces of molded parts and extrusions (except ends) shall have a natural finish.
 - 4.2 **Properties:** The product shall conform to the following requirements; tests shall be performed on the product supplied and in accordance with the issue of specified ASTM methods listed in the latest issue of AMS 2350, insofar as practicable.
 - 4.2.1 **As Received:**

4.2.1.1	Compression-Deflection, psi	12 to 20	ASTM D1056
			Temperature: 20 - 30 C (68 - 86 F)
4.2.1.2	Density, lb per cu in., max	0.030	
 - 4.2.2 **Compression Set:**

			ASTM D1056
4.2.2.1	Per cent of original deflection, max	60	Temperature: 100 C $\pm$ 1 (212 F $\pm$ 1.8)
			Time: 22 hr
4.2.2.2	Per cent of original thickness, max	30	
 - 4.2.3 **Low Temperature Brittleness:**

		Pass	ASTM D736 (See Note 1)
			Temperature: -75 C $\pm$ 3 (-103 F $\pm$ 5.4)
			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 imperfections detrimental to fabrication, appearance, or performance of parts.

6. TOLERANCES: Unless otherwise specified, the following tolerances shall apply; measurements shall be made in accordance with the issue of ASTM D1056 listed in the latest issue of AMS 2350.

6.1 Sheet and Strip:

6.1.1	Nominal Thickness Inch	<u>Tolerance, Inch</u>	
		Plus	Minus
	1/16	1/64	1/64
	1/8, 3/16	1/32	1/32
	1/4, 5/16	3/64	1/32
	3/8, 1/2	3/64	3/64

6.1.2	Nominal Length and Width Inches	<u>Tolerance, Inch</u>	
		Plus and Minus	
	Up to 6, incl	1/8	
	Over 6 to 18, incl	1/4	
	Over 18	3/8	

7. REPORTS:

- 7.1 Unless otherwise specified, the vendor of the product shall furnish with each shipment three copies of a report stating that the product conforms to 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, material specification number, contractor or other direct supplier of material, supplier's compound number, 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.

8. IDENTIFICATION: Unless otherwise specified, all material shall be identified in accordance with the latest issue of AMS 2810 except cure date is not required.

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 from exposure to weather or any normal hazard.
- 9.2 Each package shall be permanently and legibly marked in accordance with the latest issue of AMS 2810 except cure date is not required.

10. APPROVAL:

- 10.1 To assure adequate performance characteristics, compounds shall be approved by purchaser before material for production use is supplied, unless such approval be waived. Results of tests on production material shall be essentially equivalent to those on the approved sample.