

AERONAUTICAL MATERIAL SPECIFICATIONS

AMS 3252C

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Issued 11-1-44
Revised 1-15-59

SYNTHETIC RUBBER AND CORK COMPOSITION General Purpose 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, or as ordered.
3. APPLICATION: Primarily for packings, seals, grommets, line support blocks, tank strap pads, and wherever cushioning and vibration damping are of prime importance.
4. MATERIAL AND FABRICATION:
 - 4.1 Composition: Granulated cork uniformly dispersed in a synthetic rubber compound.
 - 4.2 Joints: Joints shall be vulcanized and the joint section shall have the same strength and size as the solid section.
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: Material 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.
 - 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.
 - 5.2.1 As Received:

Ø 5.2.1.1 Compressibility, %	35 ± 5	ASTM D1147-56T
5.2.1.2 Elongation, %, min	75	ASTM D412-51T, Die B or C
Ø 5.2.1.3 Density, g per cc	0.91 to 1.10	ASTM D634-44

5.2.2 Fuel Resistance:
(Immediate Deteriorated Properties)

ASTM D471-57T

Medium:

Temperature:

Time:

ASTM Ref. Fuel A

70 - 85 F

24 hr

5.2.2.1 Compressibility Change -10 to +20 See Note 1

5.2.2.2 Volume Change, % -5 to +25

5.2.2.3 Weight Change, %

5.2.2.3.1 Upon removal from fuel 0 to +25

5.2.2.3.2 After 24 hr air drying at 70
to 85 F, max -8
(based on unimmersed weight)

Ø 5.2.3 Oil Resistance:
(Immediate Deteriorated Properties)

ASTM D471-57T

Medium:

Temperature:

Time:

ASTM Oil No. 1

212 F $\pm$ 2

24 hr

5.2.3.1 Compressibility Change -5 to +15 See Note 1

5.2.3.2 Volume Change, % -10 to +10

5.2.3.3 Decomposition None

5.2.3.4 Surface Tackiness None

5.2.4 Water Absorption:
(Immediate Deteriorated Properties)

ASTM D471-57T

Medium:

Temperature:

Time:

Distilled Water

212 F $\pm$ 2

1 hr

Ø 5.2.4.1 Compressibility Change 0 to +15 See Note 1

5.2.4.2 Volume Change, % 0 to +10

Ø 5.2.4.3 Weight Change, % 0 to +15

5.2.5 Dry Heat Resistance:

ASTM D573-53

Temperature:

Time:

212 F $\pm$ 2

70 hr

5.2.5.1 Compressibility Change -15 to + 5 See Note 1

5.2.5.2 Flexibility Pass ASTM D1170-54T

5.2.6 Compression Set:

ASTM D395-55, Method B

5.2.6.1 Per cent of original deflection, max 80

Temperature: 158 F $\pm$ 2

5.2.6.2 Per cent of original thickness, max 20

Time: 22 hr

Compressed to 75% original thickness

5.2.7 Brittleness Temperature: -40 F

ASTM D746-57T

See Note 2

Note 1. Compressibility change is the arithmetic difference between the original and the conditioned compressibilities, both expressed in percentage.

Note 2. Specimen shall be between 0.060 to 0.125 in. thick.

6. 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.

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

7.1 Sheet and Strip:

Nominal Thickness Inches	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

8. REPORTS:

8.1 Unless otherwise specified, the vendor of the product 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.

8.2 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, 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.

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