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AEROSPACE MATERIAL SPECIFICATIONS

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AMS 3252D

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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 in accordance with the issue of specified ASTM methods listed in the latest issue of AMS 2350, insofar as practicable.
 - 5.2.1 **As Received:**

5.2.1.1 Compressibility, %	35 ± 5	ASTM F36
5.2.1.2 Elongation, %, min	75	ASTM D412, Die B or C
Ø 5.2.1.3 Density, g per cc	0.91 to 1.10	ASTM D297
 - 5.2.2 **Fuel Resistance:** ASTM D471
Ø (Immediate Deteriorated Properties) •

Medium:	ASTM Ref. Fuel A
Temperature:	20 - 30 C (68 - 86 F)
Time:	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
 Ø 20 - 30 C (68 - 86 F), max -8
 (based on unimmersed weight)

5.2.3 Oil Resistance:
 (Immediate Deteriorated Properties)

ASTM D471
 Medium: ASTM Oil No. 1
 Temperature: 100 C $\pm$ 1
 (212 F $\pm$ 1.8)
 Time: 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
 Medium: Distilled Water
 Temperature: 100 C $\pm$ 1
 (212 F $\pm$ 1.8)
 Time: 1 hr

5.2.4.1 Compressibility Change 0 to +15

See Note 1

5.2.4.2 Volume Change, % 0 to +10

5.2.4.3 Weight Change, % 0 to +15

5.2.5 Dry Heat Resistance:

ASTM D573
 Temperature: 100 C $\pm$ 1
 (212 F $\pm$ 1.8)
 Time: 70 hr

5.2.5.1 Compressibility Change -15 to +5

See Note 1

5.2.5.2 Flexibility Pass

ASTM D1170.

Ø 5.2.6 Compression Set:

ASTM D395, Method B
 Temperature: 70 C $\pm$ 1
 (158 F $\pm$ 1.8)
 Time: 22 hr

5.2.6.1 Per cent of original deflection, max 80

5.2.6.2 Per cent of original thickness, max 20

5.2.7 Low Temperature Brittleness:
 Ø Pass

ASTM D746
 Temperature: -35 C $\pm$ 1
 (-31 F $\pm$ 1.8)

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 - 0.125 in. thick.