

# AEROSPACE MATERIAL SPECIFICATIONS

## AMS 3252D

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York 17, N.Y.

Issued 11-1-44  
Revised 2-15-65

### 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 <b>As Received:</b>		
5.2.1.1 Compressibility, %	35 ± 5	ASTM F36
5.2.1.2 Elongation, %, min	75	ASTM D412, Die B or C
∅ 5.2.1.3 Density, g per cc	0.91 to 1.10	ASTM D297
5.2.2 <b>Fuel Resistance:</b>		
∅ (Immediate Deteriorated Properties)		
		ASTM D471
		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	

Section 8.3 of the SAE Technical Board rules provides that: "All technical rules, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no intent to adhere to any SAE standard or recommended practice, and no commitment to conform to or be guided by any technical report. In formulating and applying 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."

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 ∅ 20 - 30 C (68 - 86 F), max (based on unimmersed weight)	-8	
5.2.3	<u>Oil Resistance:</u> (Immediate Deteriorated Properties)		ASTM D471 Medium: ASTM Oil No. 1 Temperature: 100 C ± 1 (212 F ± 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	<u>Water Absorption:</u> (Immediate Deteriorated Properties)		ASTM D471 Medium: Distilled Water Temperature: 100 C ± 1 (212 F ± 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	<u>Dry Heat Resistance:</u>		ASTM D573 Temperature: 100 C ± 1 (212 F ± 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.
∅ 5.2.6	<u>Compression Set:</u>		ASTM D395, Method B Temperature: 70 C ± 1 (158 F ± 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	<u>Low Temperature Brittleness:</u> ∅	Pass	ASTM D746 Temperature: -35 C ± 1 (-31 F ± 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.