AEROSPACE
MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc. 485 Lexington Ave., New York, N.Y. 10017

AMS 7281B

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GASKETS, TYPE XX ENGINE ACCESSORY DRIVE
Brass Screen Reinforced

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. APPLICATION: Primarily for use between propeller controls and aircraft power plant control mounting pads.

3. MATERIAL AND FABRICATION: Gasket shall consist of screen made of AMS 4712 brass wire firmly bonded between two thicknesses of gasket material.

4. TECHNICAL REQUIREMENTS:

4.1 General:

4.1.1 Corrosion: Gaskets 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.

4.1.2 Removability: Gaskets shall be removable from an assembly without delamination due to excessive sticking.

4.2 Properties: Unless otherwise specified, gaskets shall conform to the following requirements; tests shall Ø be performed on the gaskets 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	Compressibility, %, max	35	See Note 1
4.2.1.2	Compression Set, %, max	15	See Note 1
4.2.1.3	Adhesion between components, lb per in., min	8	See Note 2
4.2.1.4	Leakage	No perceptible accumulation of oil at the periphery and not more than 1 drop per min. leakage from any internal opening	

4.2.2 Lubricating Oil Resistance: (Immediate Deteriorated Properties)

ASTM D471
Medium: ASTM Oil No. 1
Temperature: 100 C ± 1 (212 F ± 1.8)
Time: 70 hr

Ø 4.2.2.1	Thickness Change, %	0 to +10
4.2.2.2	Compressibility, %, max	35
4.2.2.3	Compression Set, %, max	25
4.2.2.4	Decomposition	None

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4.2.2.5	Surface Tackiness	None	
4.2.2.6	Adhesion between components, lb per in., min	6	
4.2.2.7	Leakage	No perceptible accumulation of oil at the periphery and not more than 1 drop per min. leakage from any internal opening	
4.2.3	Non-Aromatic Fuel Resistance:		ASTM D471
Ø	(Immediate Deteriorated Properties)		Medium: ASTM Fuel No. 1
			Temperature: 20 - 30 C (68 - 86 F)
Ø 4.2.3.1	Thickness Change, %	0 to +15	Time: 5 hr
4.2.3.2	Compressibility, %, max	45	
4.2.3.3	Compression Set, %, max	25	
4.2.3.4	Leakage	No perceptible accumulation of oil at the periphery and not more than 1 drop per min. leakage from any internal opening	
4.2.4	Water Resistance:		ASTM D471
Ø	(Immediate Deteriorated Properties)		Medium: Distilled Water
			Temperature: 20 - 30 C (68 - 86 F)
Ø 4.2.4.1	Thickness Change, %	0 to +10	Time: 24 hr
4.2.5	Dry Heat Resistance: (Properties 10 - 15 min. after removal)		ASTM D573 Temperature: 100 C ± 1 (212 F ± 1.8) Time: 70 hr
4.2.5.1	Compressibility, %, max	25	
4.2.5.2	Compression Set, %, max	15	
4.2.5.3	Leakage	No perceptible accumulation of oil at the periphery and not more than 1 drop per min. leakage from any internal opening	

Note 1. Compressibility and Compression Set: Cut specimens 1/2 in. in diameter, or other shape of equivalent area provided width is not less than 1/4 in. at any point, from flat gasket areas containing no beads, ridges, or holes. Measure thickness of specimens accurately. Subject each specimen to load of 500 kg for 2 min. in a standard compression testing machine using a 1.00 in. diameter flat steel disk or plate for compressing specimen, and measure thickness while still under load. Remove load, allow specimen to stand for 10 min. and again measure thickness. Compressibility shall be calculated as the difference, in percentage, between the original thickness and the thickness measured under load. Compression set shall be calculated as the difference, in percentage, between the original thickness and the thickness 10 min. after removal of the 500 kg load.