

AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard



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REV
C

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Superseding AMS-7282B

GASKETS, TYPE XX ENGINE ACCESSORY DRIVE Corrosion Resistant Steel Screen Reinforced

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This cover sheet should be attached to the "B" revision of the subject specification.

Noncurrent refers to those parts which have previously been widely used and which may be required on some existing designs in the future. The Aerospace Materials Division does not recommend these as standard parts for future use in new designs. Each of these "Noncurrent" specifications is available on request.

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AEROSPACE

MATERIAL SPECIFICATIONS

SOCIETY OF AUTOMOTIVE ENGINEERS, Inc.

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AMS 7282B

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GASKETS, TYPE XX ENGINE ACCESSORY DRIVE Corrosion Resistant Steel 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 corrosion resistant steel wire of 18Cr - 8Ni type 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 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 See Note 3

4.2.2 **Lubricating Oil Resistance:** (Immediate Deteriorated Properties)

ASTM D471

Medium: ASTM Oil No. 1

Temperature: 100 C $\pm$ 1
(212 F $\pm$ 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

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:
Ø (Immediate Deteriorated Properties)

ASTM D471

Medium: ASTM Ref. Fuel A

Temperature: 20 - 30 C

(68 - 86 F)

Time: 5 hr

Ø 4.2.3.1 Thickness Change, % 0 to +15

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:
Ø (Immediate Deteriorated Properties)

ASTM D471

Medium: Distilled Water

Temperature: 20 - 30 C

(68 - 86 F)

Time: 24 hr

Ø 4.2.4.1 Thickness Change, % 0 to +15

4.2.5 Dry Heat Resistance:
(Properties 10 - 15 min. after removal)

ASTM D573

Temperature: 100 C $\pm$ 1

(212 F $\pm$ 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.