

AEROSPACE MATERIAL SPECIFICATION

Issued	OCT 1981
Revised	APR 1988
Noncurrent	APR 1994
Cancelled	AUG 2001

Superseding AMS 7262B

Rings, Sealing, Ethylene Propylene (EPM) Rubber,
Phosphate Ester Hydraulic Fluid Resistant,
85 - 95

CANCELLATION NOTICE

This specification has been "CANCELLED" by the Aerospace Materials Division, SAE, as of August 2001. By this action, this document will remain listed in the Numerical Section of the Index of Aerospace Material Specifications.

Cancelled specifications are available from SAE.

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

Copyright 2001 Society of Automotive Engineers, Inc.
All rights reserved.

QUESTIONS REGARDING THIS DOCUMENT:
TO PLACE A DOCUMENT ORDER:
SAE WEB ADDRESS:

(724) 772-7161
(724) 776-4970
<http://www.sae.org>

FAX: (724) 776-0243
FAX: (724) 776-0790

Printed in U.S.A.



Documents

Document Sharing Hub

1. SCOPE:**1.1 Form:**

This specification covers an ethylene propylene (EPM) rubber in the form of molded rings.

1.2 Application:

Sealing rings for use in phosphate ester-base, fire-resistant, hydraulic fluids from -55° to +150°C (-65° to +300°F). Standard sizes are as shown in AS 568.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications, Aerospace Standards, and Aerospace Information Reports shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350 Standards and Test Methods

AMS 2817 Packaging and Identification, Preformed Packings

2.1.2 Aerospace Standards:

AS 568 Aerospace Size Standard for O-Rings

AS 871 Manufacturing and Inspection Standards for Preformed Packings (O-Rings)

2.1.3 Aerospace Information Reports:

AIR 851 O-Ring Tension Testing Calculations

2.2 ASTM Publications:

Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM D1414 Testing Rubber O-Rings

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a compound, based on an ethylene propylene (EPM) elastomer, suitably cured to produce sealing rings meeting the requirements of 3.2.

3.2 Properties:

Rings shall conform to the following requirements; tests shall be performed on the rings supplied and in accordance with ASTM D1414, insofar as practicable. Testing for tensile strength and tensile stress is not required on rings which are too small to permit assembly on rollers and are, after cutting, too short to permit testing as a single strand. Eliminating testing for tensile strength and tensile stress does not eliminate testing for elongation; elongation test can be made by stretching a ring over a mandrel of a size which will stretch the ring sufficiently to produce the required elongation when figured on the ID of the ring. Calculations of tensile strength, elongation, and tensile stress may be made in accordance with AIR 851.

3.2.1 As Received:

3.2.1.1	Hardness, Durometer "A" or equiv.	90 ± 5
3.2.1.2	Tensile Strength, min	1400 psi (9.65 MPa)
3.2.1.3	Elongation, min	120%
3.2.1.4	Tensile Stress at 100% Elongation, min	800 psi (5.50 MPa)
3.2.1.5	Corrosion	Nil
3.2.1.6	Specific Gravity	Preproduction Value ±0.02

3.2.2	Phosphate Ester Fluid Resistance: (Immediate Deteriorated Properties)	Medium:	SAE Phosphate Ester Standard Test Fluid No. 1A (See 8.1)
3.2.2.1	Hardness Change, Durometer "A" or equiv.	-15 to 0	Temperature: 125°C ± 3 (255°F ± 5)
3.2.2.2	Tensile Strength Change, max	-15%	Time: 70 hr ± 0.5
3.2.2.3	Elongation Change, max	-15%	