

AEROSPACE MATERIAL SPECIFICATION

SAE

AMS 7278F

Issued 15 JAN 1960

Revised 1 JUL 1991

Superseding AMS 7278E

Submitted for recognition as an American National Standard

RINGS, SEALING, FLUOROCARBON RUBBER
High-Temperature-Fluid-Resistant
70 - 80

This specification has been declared as "SUPERSEDED" by the Aerospace Materials Division, SAE, as of 17 October 1990. The requirements of this specification are embodied in the latest issue of AMS 7276, RINGS, SEALING, FLUOROCARBON RUBBER, High-Temperature-Fluid-Resistant, Very Low Compression Set, FKM Type, 70 - 80. The requirements of the latest issue of AMS 7276 shall be fulfilled whenever reference is made to this specification.

This specification is under the jurisdiction of AMS Committee "CE".

SAE Technical 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.





Reproduced By GLOBAL
ENGINEERING DOCUMENTS
With The Permission Of SAE
Under Royalty Agreement

SAE The Engineering
Resource For
Advancing Mobility

400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE MATERIAL SPECIFICATION

AMS 7278E

Issued 1-15-60
Revised 1-1-82

RINGS, SEALING, FLUOROCARBON RUBBER High-Temperature-Fluid-Resistant 70 - 80

This specification was declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of 10-2-75. It was recommended, therefore, that this specification not be specified for new designs. The following specifications should be considered for applications where the AMS 7278 material would have been suitable:

AMS 7280 Rings, Sealing, Fluorocarbon Rubber, High-Temperature-Fluid-Resistant, Low Compression Set, FKM Type, 70 - 80

AMS 7276 Rings, Sealing, Fluorocarbon Rubber, High-Temperature-Fluid-Resistant, Very-Low Compression Set, FKM Type, 70 - 80

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

This specification is under the jurisdiction of AMS Committee "C".

SAE Technical Board rules provide that: "All technical reports, including standards approved and practices recommended, are advisory only. Their use by anyone engaged in industry or trade or their use by governmental agencies is entirely voluntary. There is no agreement 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 approving 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."





AEROSPACE MATERIAL

Society of Automotive Engineers, Inc.
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 10001

SPECIFICATION

AMS 7278E

Superseding AMS 7278D

Issued 1-15-60

Revised 6-1-74

RINGS, SEALING, FLUOROCARBON RUBBER

High-Temperature-Fluid-Resistant

70 - 80

1. SCOPE:

- 1.1 Form: This specification covers a high-temperature-fluid-resistant fluorocarbon rubber in the form of molded rings.
- 1.2 Application: Sealing rings primarily for use in contact with air or a variety of fuels, lubricants, and hydraulic fluids at temperatures from -15°C ($+5^{\circ}\text{F}$) to $+260^{\circ}\text{C}$ ($+500^{\circ}\text{F}$). The cross section of such rings is usually not over 0.275 in. (6.98 mm) in diameter or thickness. 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 (AMS), Aerospace Standards (AS), and Aerospace Information Reports (AIR) shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

- 2.1 SAE Publications: Available from Society of Automotive Engineers, Inc., Two Pennsylvania Plaza, New York, New York 10001.

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 Report:

AIR 851 - O-Ring Tension Testing Calculations

- 2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103.

ASTM D1414 - Testing Rubber O-Rings

3. TECHNICAL REQUIREMENTS:

- 3.1 Material: Shall be a compound based on a fluorocarbon elastomer, suitably cured to produce a product meeting all requirements of this specification.

SAE Technical Board rules provide that: "All technical reports, including standards, and practices recommended, are advisory only. Their use by anyone engaged in industry or trade is entirely voluntary. There is no agreement 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 approving 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."