

**AEROSPACE
MATERIAL
SPECIFICATION**

SAE AMS3383

REV. A

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Superseding AMS3383

Polytetrafluoroethylene (PTFE) - Fluorosilicone (FVMQ) Rubber
High Temperature Fuel and Oil Resistant
75 - 85

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1. SCOPE:

1.1 Form:

This specification covers a polytetrafluoroethylene (PTFE) modified fluorosilicone (FVMQ) rubber in the form of molded shapes, molded rings (ASTM D 1414), and compression seals.

1.2 Application:

These products have been used typically for parts requiring resistance to jet fuel and lubricating oils, but usage is not limited to such applications. Generally, products are usable over a temperature range of -60 to +150 °C (-76 to +302 °F); the high tear resistance improves installation characteristics and the high tensile stress (modulus) enhances extrusion resistance. Each application, however, has to be considered individually.

1.3 Safety-Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2279	Tolerances, Rubber Products
MAM 2279	Tolerances, Metric, Rubber Products
AMS 2810	Identification and Packaging, Elastomeric Products
AMS 3021	Fluid, Reference, for Testing Di-Ester (Polyol) Resistant Materials

2.2 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 297	Rubber Products - Chemical Analysis
ASTM D 395	Rubber Property - Compression Set
ASTM D 412	Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension
ASTM D 471	Rubber Property - Effect of Liquids
ASTM D 573	Rubber - Deterioration in an Air Oven
ASTM D 624	Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomer
ASTM D 1329	Evaluating Rubber Property - Retraction at Low Temperature (TR Test)
ASTM D 1414	Rubber O-Rings
ASTM D 1415	Rubber Property - International Hardness
ASTM D 2240	Rubber Property - Durometer Hardness

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall be a compound, based on a polytetrafluoroethylene (PTFE) - modified fluorosilicone (FVMQ) rubber, suitably cured to produce a product meeting the requirements of 3.2.

3.2 Properties:

The product shall conform to requirements shown in Table 1; tests shall be performed on the product supplied and in accordance with specified ASTM methods, insofar as practicable.