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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

SAE AMS 7261/1E

Issued APR 1983
Revised FEB 1995

Submitted for recognition as an American National Standard

Superseding AMS 7261/1D

RINGS, SEALING, PHOSPHONITRILIC (FX) FLUOROELASTOMER
High-Temperature-Fluid Resistant
65-75

This specification has been declared "NONCURRENT" by the Aerospace Materials Division, SAE, as of February 1995. It is recommended, therefore, that this specification not be specified for new designs.

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

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

PREPARED UNDER THE JURISDICTION OF AMS COMMITTEE "CE"

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AEROSPACE MATERIAL SPECIFICATION

SAE AMS 7261/1 D

Issued 1 APR 1983
Revised 1 JUL 1991

Submitted for recognition as an American National Standard

Superseding AMS 7261/1C

RINGS, SEALING, PHOSPHONITRILIC (FZ) FLUOROELASTOMER
High-Temperature-Fluid Resistant
65 - 75

1. SCOPE:

1.1 Form: This specification covers one type of phosphonitrilic (FZ) fluoroelastomer in the form of molded rings.

1.2 Classification: Rings having nominal hardness of 70 Durometer A, or equivalent.

2. APPLICABLE DOCUMENTS: See AMS 7261.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification: The complete requirements for procuring the sealing rings described herein shall consist of this document and the latest issue of the basic specification, AMS 7261.

3.2 Properties: Shall be as follows:

3.2.1 As Received:

3.2.1.1 Hardness, Durometer "A" or equivalent	70 ± 5
3.2.1.2 Tensile Strength, minimum	900 psi (6.21 MPa)
3.2.1.3 Elongation, minimum	100%
3.2.1.4 Specific Gravity	Preproduction Value ± 0.02
3.2.1.5 Temperature Retraction TR_{10} Point, maximum	-55°C (-67°F)

3.2.2 Aromatic Fuel Resistance:		ASTM Reference Fuel B (ASTM D 471)
3.2.2.1 Hardness Change, Durometer "A" or equivalent	0 to -10	Temperature: 20° - 30°C (68° - 86°F)
3.2.2.2 Tensile Strength Change, maximum	-25%	Time: 22 hours ± 0.25
3.2.2.3 Elongation Change, maximum	-15%	
3.2.2.4 Volume Change	+1 to +20%	
3.2.3 Synthetic Lubricant Resistance:		Medium: AMS 3021
3.2.3.1 Hardness Change, Durometer "A" or equivalent	0 to -10	Temperature: 150°C ± 3 (302°F ± 5) Time: 70 hours ± 0.5
3.2.3.2 Tensile Strength Change, maximum	-20%	
3.2.3.3 Elongation Change, maximum	-15%	
3.2.3.4 Volume Change	+1 to +20%	
3.2.3.5 Compression Set, maximum	30%	
3.2.3.6 Temperature Retraction TR_{10} Point, maximum	-55°C (-67°F)	
3.2.4 Dry Heat Resistance:		Temperature: 175°C ± 3 (347°F ± 5)
3.2.4.1 Hardness Change, Durometer "A" or equivalent	-10 to +IO	Time: 70 hours ± 0.5
3.2.4.2 Tensile Strength Change, maximum	-20%	
3.2.4.3 Elongation Change, maximum	-45%	
3.2.4.4 Weight Loss, maximum	2%	
3.2.4.5 Temperature Retraction TR_{10} Point, maximum	-55°C (-67°F)	
3.2.5 Compression Set:		
Percent of Original Deflection, maximum		
3.2.5.1 After 22 hours ± 0.25 at 175°C ± 3 (347°F ± 5)	45%	