

AEROSPACE MATERIAL SPECIFICATION



AMS 7261/3D

Issued APR 1983
Revised FEB 1995

Submitted for recognition as an American National Standard

Superseding AMS 7261/3C

RINGS, SEALING, PHOSPHONITRILIC (FX) FLUOROELASTOMER High-Temperature-Fluid Resistant 85-95

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 "C" 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.

SAENORM.COM : Click to view the full PDF of AMS 7261/3D

PREPARED UNDER THE JURISDICTION OF AMS COMMITTEE "CE"

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.

Submitted for recognition as an American National Standard

Issued 1 APR 1983
Revised 1 JUL 1991
Superseding AMS 7261/3B

**RINGS, SEALING, PHOSPHONITRILIC (FZ) FLUOROELASTOMER
High-Temperature-Fluid Resistant
85 - 95**

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 90 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 90 ± 5

3.2.1.2 Tensile Strength, minimum 900 psi
(6.21 MPa)

3.2.1.3 Elongation, minimum 75%

3.2.1.4 Specific Gravity Preproduction
Value ± 0.02

3.2.1.5 Temperature Retraction -55°C
TR₁₀ Point, maximum (-67°F)

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.

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 -10Temperature: 20° - 30°C
(68° - 86°F)
Time: 22 hours ± 0.253.2.2.2 Tensile Strength Change,
maximum -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 -10Temperature: 150°C ± 3
(302°F ± 5)
Time: 70 hours ± 0.53.2.3.2 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 45%

3.2.3.6 Temperature Retraction
TR₁₀ 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 +10

Time: 70 hours ± 0.5)

3.2.4.2 Tensile Strength Change,
maximum -20%

3.2.4.3 Elongation Change, maximum -20%

3.2.4.4 Weight Loss, maximum 2%

3.2.5 Compression Set:Percent of Original
Deflection, maximum3.2.5.1 After 22 hours ± 0.25 at
175°C ± 3 (347°F ± 5) 55%