



General Features

- Good compression set resistance
- Good heat resistance
- Excellent resistance to petroleum oils, greases, and fuels
- Good low temperature performance
- Suitable for food contact use

Application

A general purpose NBR with good aging resistance for suitability in a variety of sealing applications.

446A exhibits excellent resistance to a wide range of petroleum products while providing excellent low temperature flexibility and sealing performance.



Quad-Ring® Brand Seals



Quad® Brand O-Ring Seals



Quad® Ground Rubber Balls

Equi-Flex™ Rod Wiper/
Scraper

Certifications



FDA 21 CFR 177.2600

Original Properties

Property	Unit	Required	Obtained	ASTM Test Method
Hardness	Shore A	80 ± 5	80	D 2240
Tensile	MPa	10 min	17.1	D 412
Elongation at break	%		251	D 412
100% Modulus	MPa		7.7	D 412
Tear Strength, Die C	kN/m		29.1	D 624
Specific Gravity			1.30	D 297

NBR Elastomer Compound 446A

Air Age

Property	Unit	Obtained	ASTM Test Method
Change after 70h @ 100°C			D 573
Δ Hardness	Shore A	5	
Δ Tensile	%	7.4	
Δ Elongation	%	-22.3	

Fluid Immersion

Property	Unit	Obtained	ASTM Test Method	Property	Unit	Obtained	ASTM Test Method
Reference Fuel A				Reference Fuel B			
Change after 70h @ 23°C			D 471	Change after 70h @ 23°C			D 471
Δ Hardness	Shore A	-1		Δ Hardness	Shore A	-13	
Δ Tensile	%	-3.3		Δ Tensile	%	-23.9	
Δ Elongation	%	-2		Δ Elongation	%	-28.9	
Δ Volume	%	1.6		Δ Volume	%	25.1	
Property	Unit	Obtained	ASTM Test Method	Property	Unit	Obtained	ASTM Test Method
IRM 901 oil				IRM 903 oil			
Change after 70h @ 100°C			D 471	Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	7		Δ Hardness	Shore A	-2	
Δ Tensile	%	12.3		Δ Tensile	%	10.1	
Δ Elongation	%	-16.7		Δ Elongation	%	-10	
Δ Volume	%	-5.3		Δ Volume	%	5.8	

Property	Unit	Obtained	ASTM Test Method
De-ionized Water			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	0	
Δ Tensile	%	5.4	
Δ Elongation	%	-13.1	
Δ Volume	%	1.8	

Compression Set Resistance

Property	Unit	Obtained	ASTM Test Method
			D 395, Method B
22h @ 100°C	%	8.9	
70h @ 100°C	%	12.5	

Low Temperature

Property	Obtained	ASTM Test Method
Non-brittleness, 3 min @ -40°C	Pass	D 2137



To get a quote or order, please visit our website or contact one of our Customer Service Representatives
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