



## General Features

- Very good compression set resistance
- Very 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.

445A 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	60 ± 5	60	D 2240
Tensile	MPa	10 min	16.4	D 412
Elongation at break	%		549	D 412
100% Modulus	MPa		2.1	D 412
Tear Strength, Die C	kN/m		35.2	D 624
Specific Gravity			1.22	D 297

# NBR Elastomer Compound 445A

## Air Age

Property	Unit	Obtained	ASTM Test Method
Change after 70h @ 100°C			D 573
Δ Hardness	Shore A	5	
Δ Tensile	%	4.8	
Δ Elongation	%	-21.5	

## Fluid Immersion

Property	Unit	Obtained	ASTM Test Method
Reference Fuel B			
Change after 70h @ 23°C			D 471
Δ Hardness	Shore A	-13	
Δ Tensile	%	-36.3	
Δ Elongation	%	-36.8	
Δ Volume	%	21.2	

Property	Unit	Obtained	ASTM Test Method
IRM 901 oil			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	9	
Δ Tensile	%	13.4	
Δ Elongation	%	-18.8	
Δ Volume	%	-11.5	

Property	Unit	Obtained	ASTM Test Method
IRM 903 oil			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	-2	
Δ Tensile	%	9.1	
Δ Elongation	%	-12.2	
Δ Volume	%	1.9	

Property	Unit	Obtained	ASTM Test Method
De-Ionized Water			
Change after 70h @ 100°C			D 471
Δ Hardness	Shore A	-1	
Δ Tensile	%	0.3	
Δ Elongation	%	-15.1	
Δ Volume	%	3.4	

## Compression Set Resistance

Property	Unit	Obtained	ASTM Test Method
			D 395, Method B
22h @ 100°C	%	10.8	
70h @ 100°C	%	15.4	

## 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  
USA: 1(800)927-1422 Asia: +86-512 6273 2700 Europe: +33(0)2 32 22 24 26