

Parco

4623-90 Nitrile Seals

Need Peroxide-Cured 90-Durometer Seals at a Great Price?

Parco is committed to being the leader in low-cost, peroxide-cured, 90-durometer nitrile O-rings. Seals made from our 4623-90 compound have outstanding physical properties and are competitively priced.

4623-90 Meets Your Needs

1. Excellent Resistance to Compression Set

When installed, most seals must resist taking a set from compression to seal properly. When a seal takes a set, it no longer exerts force on the mating surfaces, resulting in leakage. A compound with a low compression set, like 4623-90, better maintains its elastomeric properties and original thickness, preserving seal integrity.

Seals made from Parco's 4623-90 compound provide excellent resistance to compression set at higher temperatures. After testing 4623-90 for 70 hours at 212°F, it had a compression set of only 5 percent.

2. Peroxide-Cured

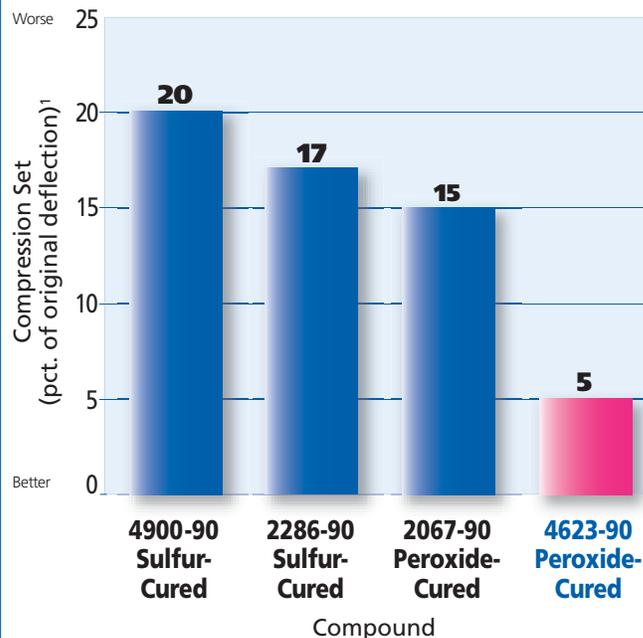
Nitrile compounds use either sulfur or peroxide curatives. Peroxide-cured compounds typically have better resistance to compression set and extrusion. Peroxide-cured compounds also have lower elongation.

3. Exceptional Prices

Parco's 4623-90 prices are among the lowest available. We use the latest manufacturing techniques and sell in huge volume. That allows us to provide you with peroxide-cured 90-durometer nitrile O-rings at a great price.

Fig. 1:

Compression Set of Popular Parco 90-Durometer Nitrile Compounds



¹Compression set calculated after 22 hours at 100°C (212°F).

Source: Parco Test Reports.

Parco seals made from 4623-90 have excellent resistance to compression set. At 5 percent, 4623-90 significantly outperforms other 90-durometer nitrile compounds.

Key Features

Parco's 4623-90 peroxide-cured nitrile seals are ideal for use in high pressure applications. Key features include the following:

- **Outstanding resistance to compression set:**
Parco 4623-90 seals have a compression set of only 5 percent after 22 hours at 212°F.
- **Wide range of service temperatures:**
Parco 4623-90 seals are suitable for applications ranging from -30 to +250°F.

Chemical Resistance

USE WITH	DO NOT USE WITH
Automatic Transmission Fluid Crude Oil Gasoline Propane Water	Acetone Carbon Tetrachloride Ethyl Acetate Nitromethane Toluene

Typical Values for Compound 4623-90 Peroxide-cured 90-durometer nitrile

Section of Spec.	Physical Property	Requirement ¹	Typical Value	ASTM ² Test Method
	Original Properties			
	Hardness, Shore A	90 ± 5	87	D2240
	Tensile strength, MPa (psi), min.	10(1450)	21.3(3091)	D412
Z1	Ultimate elongation, pct., min.	75	87	D412
Z2	Modulus at 50 pct. elongation, psi	Report	1611	D412
Z3	Specific gravity	Report	1.29	D297
	Heat Aging			
A25	70 hours at 125°C (257°F)			D865
	Hardness change, pts., Shore A	0 to 15	2	
	Tensile strength change, pct., max.	-25	-2	
	Ultimate elongation change, pct., max.	-50	-16	
	Compression Set, Solid			D395
	pct. of original deflection, max.			Method B
B14	22 hours at 100°C (212°F)	25	5	
Z4	70 hours at 100°C (212°F)	Report	7	
Z5	70 hours at 125°C (257°F)	Report	11	
Z6	70 hours at 150°C (302°F)	Report	18	
	Fluid Aging, IRM³ 901 Oil			
	70 hours at 125°C (257°F)			D471
EO15	Hardness change, pts., Shore A	0 to 10	2	
	Tensile strength change, pct., max.	-20	-5	
	Ultimate elongation change, pct., max.	-50	-8	
	Volume change, pct.	-15 to 5	-5	
	Fluid Aging, IRM 903 Oil			
	70 hours at 125°C (257°F)			D471
Z7	Hardness change, pts., Shore A	Report	-7	
	Tensile strength change, pct.	Report	-49	
	Ultimate elongation change, pct.	Report	-39	
Basic	Volume change, pct., max.	30	6	
	Low Temperature Property			
Z8	TR-10, °C (°F)	Report	-31(-23)	D1329
Z9	Brittleness, 5 hours at -40°C (-40°F)	No Cracks	No Cracks	D736

¹Compound 4623-90 meets the requirements shown above for ASTM D2000 M4CH910 A25 B14 EO15 Z1 Z2 Z3 Z4 Z5 Z6 Z7 Z8 Z9. ²ASTM is the acronym for the American Society for Testing and Materials. ³IRM is the acronym for Industry Reference Material. Source: Parco Test Report 8781B.

⚠ This brochure is intended as a guideline and reference. Appropriate testing and validation by users having technical expertise is necessary for proper use of Parco products.

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