

Parco

9021-95 Fluorocarbon Seals

Need Extrusion Resistant FKM Seals?

Parco is committed to being the leader in high-performance fluorocarbon (FKM) seals. Seals made from our popular 95-durometer 9021-95 compound have outstanding physical properties and are competitively priced.

9021-95 Meets Your Needs

1. Outstanding Resistance to Extrusion

Modulus shows the amount a seal resists deforming under stress. A seal with high modulus is more extrusion resistant than a seal with low modulus. Seals made from Parco's 9021-95 compound are ideal for high-pressure oil field applications that cannot use contoured back-up rings (see Figure 1). At 100 percent elongation, seals made from Parco's 9021-95 compound have a modulus of 2,433 psi.

2. Excellent Resistance to Compression Set

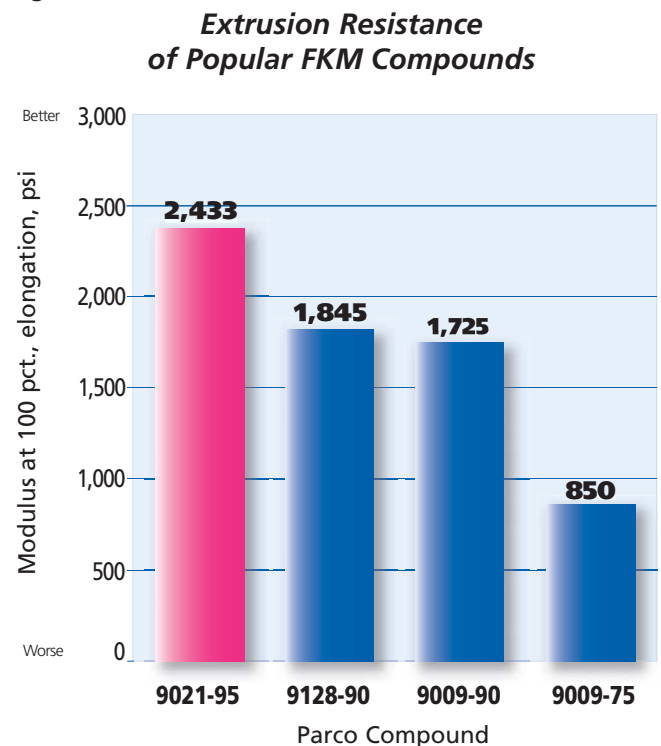
To perform properly, seals must resist taking a set from compression after being installed. When a seal takes a set, it no longer exerts force on the mating surfaces, resulting in leakage. A compound with low compression set, like 9021-95, better maintains its elastomeric properties and original thickness, preserving seal integrity. Seals made from Parco's 9021-95 compound provide excellent resistance to compression set at higher temperatures. After testing 9021-95 for 22 hours

at 392°F, it had a compression set of only 11 percent.

3. Huge Inventory

We stock almost all 369 standard sizes of 9021-95. We've also made it easy to check stock. Using our web site, you can view our inventory 24 hours a day. If we receive your order before 2:30 p.m. Pacific time, you can receive your parts as soon as the next business day.

Fig. 1:



Source: Parco R & D data.

Parco seals made from 9021-95 have excellent extrusion resistance. With a modulus of 2,433 psi, 9021-95 outperforms other popular fluorocarbon compounds.

Key Features

Parco's 9021-95 fluorocarbon seals are ideal for high-pressure applications. Key features include the following:

- **Outstanding resistance to extrusion:**
Parco 9021-95 seals have a modulus at 100 percent elongation of 2433 psi.
- **Excellent resistance to compression set:**
Parco 9021-95 seals have a compression set of only 11 percent after 22 hours at 392°F.
- **Wide range of service temperatures:**
Parco 9021-95 seals are suitable for applications ranging from -20 to +400°F.

Typical Values for Compound 9021-95 95-durometer fluorocarbon

Section of Spec.	Physical Property	Requirement ¹	Typical Value	ASTM ² Test Method
Z1	Original Properties			
	Hardness, Shore A	95 ± 3	93	D2240
	Tensile strength, MPa (psi), min.	14(2031)	16(2289)	D412
	Ultimate elongation, pct., min.	100	111	D412
Z2	Modulus at 100 pct., elongation, psi, min.	2031	2433	D412
Basic	Fluid Aging, IRM³ 903 Oil 70 hours at 150°C (302°F)			D471
	Volume change, pct., max.	10	2	
A1-10	Heat Aging 70 hours at 250°C (482°F)			D573
	Hardness change, pts., Shore A, max.	10	-1	
	Tensile strength change, pct., max.	-25	-6	
	Ultimate elongation change, pct., max.	-25	-19	
B38	Compression Set 22 hours at 200°C (392°F)			D395 Method B
	Pct. of original deflection, max.	20	11	
EF31	Fluid Aging, Fuel C 70 hours at 23°C (75°F)			D471
	Hardness change, pts., Shore A	±5	-4	
	Tensile strength change, pct., max.	-25	-12	
	Ultimate elongation change, pct., max.	-20	6	
	Volume change, pct.	0 to 10	2	
EO88	Fluid Aging, SAE Fluid No. 2 Blend 7700 70 hours at 200°C (392°F)			D471
	Hardness change, pts., Shore A	-15 to 5	-15	
	Tensile strength change, pct., max.	-40	-17	
	Ultimate elongation change, pct., max.	-20	22	
	Volume change, pct., max.	25	14	

¹Compound 9021-95 meets the requirements shown above for ASTM D2000 M7HK914 A1-10 B38 EF31 EO88 Z1 Z2.

²ASTM is the acronym for the American Society for Testing and Materials.

³IRM is the acronym for Industry Reference Material.

Source: Parco Test Report 7140A.

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