

# Parco

## 9253-95 Fluorocarbon Seals

### Need Explosive Decompression Resistant 95-Durometer FKM Seals?

Parco's latest 95-durometer fluorocarbon compound is tailored to meet the unique needs of oilfield machinery. Parco's 9253-95 seals perform extremely well in high pressure, caustic environments. That means less downtime and higher productivity for your down hole equipment.

#### 9253-95 Meets Your Needs

##### 1. Excellent Resistance to Explosive Decompression

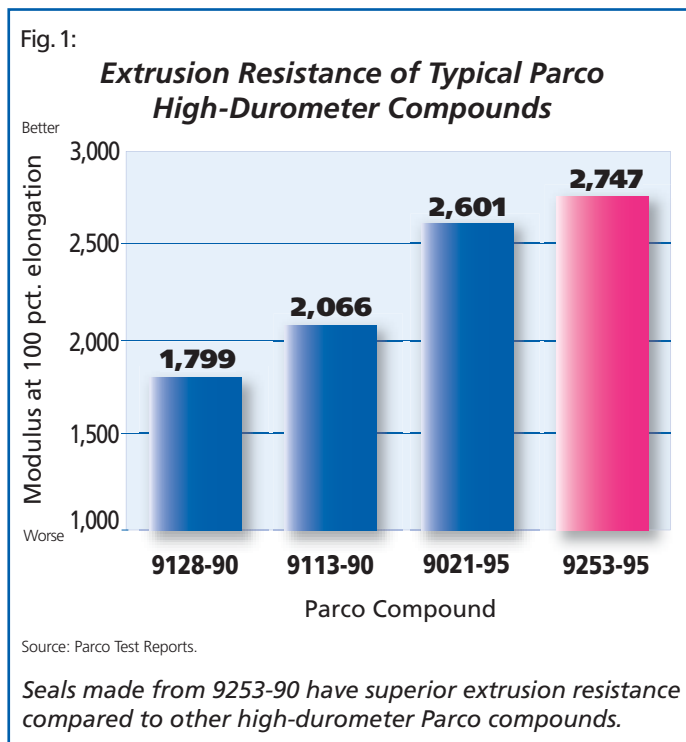
Explosive decompression (ED) is a challenge in many oilfield applications. In high-pressure environments, gases can permeate a seal, causing leakage. If pressure in a well is released too quickly, the gases in the seal may expand, causing the seal to blister or tear. Parco's 9253-95 compound addresses those challenges. After conducting a single-cycle, 24-hour, pressure soak, Parco's 9253-95 seals exhibited no visible decompression damage.

##### 2. Enhanced Resistance to Extrusion

Modulus indicates the amount a seal resists deformation under stress. A seal with high modulus is more extrusion resistant than a seal with low modulus. Parco's extrusion-resistant 9253-95 seals are ideal for high-pressure oilfield machinery applications that cannot use contoured back-up rings. At 100 percent elongation, seals made from Parco's 9253-95 compound have a modulus of 2747 psi (see Figure 1).

##### 3. Outstanding Resistance to Compression Set

To perform properly, a seal 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 our 95-durometer fluorocarbon compound 9253-95, better maintains its elastomeric properties and original thickness, preserving seal integrity. Seals made from Parco's 9253-95 compound provide excellent resistance to compression set at higher temperatures. After testing 9253-95 for 22 hours at 392°F, it had a compression set of only 15 percent.



## Key Features

Parco's 9253-95 fluorocarbon seals are ideal for high-pressure applications. Key features include the following:

- **Excellent resistance to explosive decompression:**  
After conducting a single-cycle, 24 hour pressure soak, Parco 9253-95 seals exhibited no visible decompression damage.
- **Enhanced resistance to extrusion:**  
At 100 percent elongation, Parco 9253-95 seals have a modulus of 2747 psi.
- **Outstanding resistance to compression set:**  
Parco 9253-95 seals have compression set of only 15 percent after 22 hours at 392°F.
- **Wide range of service temperatures:**  
Parco 9253-95 seals are suitable for applications ranging from -15 to +400°F.

## Chemical Resistance

USE WITH	DO NOT USE WITH
Carbon Tetrachloride Diester Synthetic Lubricants Gasoline Hot Air Toluene	Acetone Amines Ethyl Acetate

## Typical Values for Compound 9253-95 95-Durometer Fluorocarbon

Physical Property	Requirement	Typical Value	ASTM <sup>1</sup> Test Method
<b>Original Properties</b>			
Hardness, Shore A	88 to 98	91	D2240
Tensile strength, MPa (psi), min.	10.0(1450)	20.4(2959)	D412
Ultimate elongation, pct., min.	85	108	D412
Modulus at 50 pct., elongation, psi	Report	2747	D412
Tear Resistance, Die B lbf/in	Report	1.84	D297
<b>Compression Set, Plied</b>			D395
<b>Pct. of original deflection</b>			Method B
22 hours at 200°C (392°F)	15	15	
<b>Abrasion Resistance</b>			
<b>1000 Rev, H18, 1000g</b>			D3389
Weight loss, mg revolution	Report	0.25	
<b>Explosive Decompression Resistance</b>			
<b>CO<sub>2</sub> at 750 psig (0568-325)</b>			NACE
<b>22 hours at 23°C</b>			TM0192-92
<b>Immediately after decompression</b>			D1414
Hardness change, pts., Shore A	Report	-17	
Cross section change, pct.	Report	11	
Median Visual*	Report	1	
<b>10 minutes after decompression</b>			
Hardness change, pts., Shore A	Report	-19	
Cross section change, pct.	Report	12	
Median Visual*	Report	1	
<b>45 minutes after decompression</b>			
Hardness change, pts., Shore A	Report	-11	
Cross section change, pct.	Report	5	
Median Visual*	Report	1	
*Visual Rating System (NACE TM0192-92, Section 8.6)			
1 - No visible damage. 2 - Minimal damage confined to the surface (few blisters and cracks).			
3 - External and internal damage (many blisters and cracks). 4 - Extensive damage, fragmentation.			

<sup>1</sup>ASTM is the acronym for the American Society for Testing and Materials.

Source: Parco Test Reports 8462C and 8687D.

⚠ 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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