

Parco

0228-70 Nitrile Seals

Need Fuel Resistant Nitrile Seals?

Parco is committed to being the leader in competitively priced fuel resistant seals. Seals made from Parco's 0228-70 compound meet the critical requirements of the motor vehicle industry to ensure vehicle safety and performance.

0228-70 Meets Your Needs

1. Outstanding Resistance to Fuels

Parco's 0228-70 seals offer excellent performance in low alcohol fuel applications. Fuel may cause seals to swell significantly. Our 0228-70 seals had volume swell of only 17 percent after 70 hours at 73°F in Fuel B.

2. UL-listed

Parco's 0228-70 seals are listed by Underwriter's Laboratory (UL) 157 for end-use applications in gasoline/alcohol blends. UL tests and certifies certain products to ensure the safety of end-use applications. You can view a complete list of Parco's UL-listed compounds on our web site.

Nitrile Sets the Standard

Because nitriles are versatile and inexpensive, they are the most popular industrial seal material. Nitrile compounds are copolymers of acrylonitrile and butadiene. Acrylonitrile provides resistance to petroleum-based fluids, such as oils and fuels.

Butadiene contributes low-temperature flexibility. Standard nitrile is also known as Buna N.

Nitrile compounds perform well in gasoline, crude oil, power-steering fluid, hexane, toluene, water, water-based hydraulic fluids, and dilute bases, such as sodium hydroxide. Because nitriles contain unsaturated carbon-carbon bonds in the base polymer, they are not suitable for exposure to ozone, sunlight, and weathering.

More than 50 percent of sealing needs can be met using nitrile. Parco recommends that you follow the general rule: consider nitrile seals first.

Rely on Parco

Parco is a leading manufacturer of high-performance seals. We specialize in proprietary elastomeric compounds and bonding techniques. Parco's seals are available in 340 compounds, more than 25 percent developed in the last five years.

Founded in 1941, Parco was the first manufacturer to specialize in O-rings. Our modern 154,000 square-foot facility is one of the largest plants in the world making molded rubber seals. Parco also makes custom-molded elastomeric products, including rubber-to-metal bonded parts. In addition, Parco imports and resells molded rubber seals.

Key Features

Parco's 0228-70 nitrile seals are ideal for use in fuels. Key features include the following:

- **Outstanding resistance to aggressive fuels:**
Parco 0228-70 seals show minimal swell in low alcohol fuel applications.
- **UL-listed:**
Parco 0228-70 seals are listed by UL-157 for end-use applications in gasoline/alcohol blends.
- **Wide range of service temperatures:**
Parco 0228-70 seals are suitable for applications ranging from -40 to +200°F.

Typical Values for Compound 0228-70 70-durometer nitrile for UL-157

Section of Spec.	Physical Property	Requirement ¹	Typical Value	ASTM ² Test Method
Z1	Original Properties			
	Hardness, Shore A	70 ± 5	70	D2240
	Tensile strength, MPa (psi), min.	10(1450)	14(2034)	D412
	Ultimate elongation, pct., min.	250	289	D412
Basic	Heat Aging			
	70 hours at 100°C (212°F)			
	Hardness change, pts., Shore A	±15	6	D573
	Tensile strength change, pct.	±30	2	
Ultimate elongation change, pct., max.	-50	-22		
Basic	Fluid Aging, IRM³ 903 Oil			
	70 hours at 100°C (212°F)			
	Volume change, pct., max.	40	-13	D471
B14	Compression Set			
	22 hours at 100°C (212°F)			
	Pct. of original deflection, max.	25	9	D395 Method B
EA14	Fluid Aging, Water			
	70 hours at 100°C (212°F)			
	Hardness change, pts., Shore A	±10	0	D471
Volume change, pct.	±15	2		
EF11	Fluid Aging, Fuel A			
	70 hours at 23°C (73°F)			
	Hardness change, pts., Shore A	±10	3	D471
	Tensile strength change, pct., max.	-25	-3	
Ultimate elongation change, pct., max.	-25	0		
Volume change, pct.	-5 to 10	-1		
EF21	Fluid Aging, Fuel B			
	70 hours at 23°C (73°F)			
	Hardness change, pts., Shore A	-30 to 0	-15	D471
	Tensile strength change, pct., max.	-60	-17	
Ultimate elongation change, pct., max.	-60	-19		
Volume change, pct.	0 to 40	17		

¹Compound 0228-70 meets the requirements shown above for ASTM D2000 M2BG710 B14 EA14 EF11 EF21 Z1.

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

³IRM is the acronym for Industry Reference Material.

Source: Parco Test Report 6875A and R & D Data.

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