
Square Cord Compound SN70CD Data Sheet

Material: Nitrile (Buna-N)
70 Durometer, Black

General Information:

Nitrile, Buna, or NBR is one of the most common sealing elastomers due to its resistance to petroleum-based fuels and lubricants. Nitrile elastomers are copolymers of acrylonitrile and butadiene

Cure System: *Sulfur-cured*

Sulfur-cured compounds offer better low temperature properties but are more prone to hardening with high temperatures. Peroxide-cured nitriles have better heat resistance and lower compression sets but are more expensive and are more difficult to process.

Temperature Range: -40°C (-40°F) to 100°C (212°F)

Attributes:

Shape: Square

Color: Black

Durometer Shore A: 70±5

Shelf-life: 15 years

Performs Well In:

- Petroleum based oils & fuels
- Aliphatic hydrocarbons
- Vegetable oils
- Silicone oils & greases
- Ethylene glycol
- Dilute acids
- Water to below 100°C (212°F)

Doesn't Perform Well In:

- Aromatic hydrocarbons
- Automotive brake fluid
- Chlorinated hydrocarbons
- Ketones
- Ethers
- Esters
- Phosphate ester hydraulic fluids
- Strong acids
- Ozone / weathering / sunlight

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TEST REPORT FOR CORD COMPOUND SN70CD

SQUARE CORD---MATERIAL: NITRILE (BUNA-N)

DUROMETER: 70

COLOR: BLACK

ASTM* M2BG 710 B14 EA14 EO14 EO34 EF21 F16 M5BG 710 A14 B14 EO14 EO34

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PROPERTIES			
	Durometer	70±5	72	D2240
	Hardness Tensile Strength %	1450	2081	D412
	Ultimate Elongation	250	306	D412
A14	HEAT RESISTANCE			D573
	70 hours at 100°C			
	Hardness (Points Change)	+15 MAX.	+7	
	Tensile (% Change)	-20 MAX.	+14	
B14	COMPRESSION SET			D395
	22 hours at 100°C			
	% Compression Set	25 MAX.	-24	
EO14	OIL RESISTANCE ASTM OIL NO. 1			D471
	70 hours at 100°C			
	Hardness (Points Change)	-5 TO +10	+10	
	Tensile (% Change)	-25 MAX.	+11	
	Elongation (% Change)	-45 MAX.	-9	
EO34	OIL RESISTANCE ASTM OIL NO. 3			D471
	70 hours at 100°C (Grade 2)			
	Hardness (Points Change)	-10 TO +5	-1	
	Tensile (% Change)	-45 MAX.	+1	
	Elongation (% Change)	-45 MAX.	-32	
EO34	FLUID RESISTANCE ASTM OIL NO. 3			D471
	70 hours at 100°C (Grade 5)			
	Hardness (Points Change)	0 TO -15	-1	
	Tensile (% Change)	-45 MAX.	+1	
	Elongation (% Change)	-45 MAX.	-32	
EA14	FLUID RESISTANCE TO WATER			D471
	70 hours at 100°C			
	Hardness (Points Change)	±10	+5	
	Volume (% Change)	±15	+2.9	

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EF21	FLUID RESISTANCE REF. FUEL B			D471
	70 hours at 23°C			
	Hardness (Points Change)	0 TO -30	-18	
	Tensile (% Change)	-60 MAX.	-28.6	
	Elongation (% Change)	-60 MAX.	-29	
	Volume (% Change)	0 TO +40	+20.6	
F16	LOW TEMPERATURE RESISTANCE			D471
	3 minutes at -35°C			
	Brittle Point	NON-BRITTLE	PASS	

*American Society for Testing and Materials