
O-Ring Compound S50FDA Data Sheet

Silicone Rubber
50 Durometer, Red

General Information:

Silicone has excellent heat, ozone, and corona resistance and has good dielectric stability and resistance to many oils, chemicals and solvents. Silicone possesses the best flexible property at low temperature but has low tensile strength and poor wear and tear resistance.

Cure System: *Peroxide-cured*

Temperature Range: -60°C (-76°F) – 225°C (437°F)

Attributes:

Color: Red

45-55 Shore A durometer

Shelf-life: Unlimited

Performs Well In:


- Engine and transmission oil (mineral oils)
- Diluted salt solution
- Moderate water
- Dry heat
- Ozone and weather resistance

Doesn't Perform Well In:

- Concentrated acids and alkalis
- Steam over 120°C (248°F)
- Petroleum oils and fuel
- Ketones

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	TEST REPORT FOR O-RING COMPOUND S50FDA MATERIAL: SILICONE RUBBER DUROMETER: 50 COLOR: RED ASTM* D2000 M5GE506 A19 B37 EA14 EO16 EO36 F19 Z1				
	SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES				
	Hardness, Shore A	50±5	51	D2240-15	
	Tensile Strength, psi (MPa)	870(min)	1014(6.99)	D412-16	
	Elongation, min, percent	250(min)	429	D412-16	
	Modulus @ 100%, psi (Mpa)		215(1.48)	D412-16	
	Density,(Mg/m ³)		1.32	CNS 5341-96A	
A19	HEAT AGE				
	70 hours at 225°C				
	Hardness Change, points	+10(max)	-6	D573-04	
	Tensile Strength Change, percent	-25(max)	-16		
	Elongation Change, percent	-30(max)	-24		
	Weight Change, percent		-0.7		
B37	COMPRESSION SET				
	22 hours at 175°C, percent	25%(plied)(max)	19.6	D395-16B	
EA14	WATER RESISTANCE				
	70 hours @ 100°C				
	Hardness Change, points	±5	-1	D471-16a	
	Tensile Change, max, percent		-16		
	Elongation Change, max, percent		-4		
	Volume Change, percent	±5	+0.9		
EO16	IRM 901 OIL				
	70 hours at 150°C				
	Hardness Change, points	-15~0	-5	D471-16a	
	Tensile Change, max, percent	-20(max)	-3		
	Elongation Change, max, percent	-20(max)	-4		
	Volume Change, percent	0~+10	+4.5		
EO36	IRM 903 OIL				
	70 hours at 150°C				
	Hardness Change, points	-30(max)	-20	D471-16a	
	Tensile Change, max, percent		-24		
	Elongation Change, max, percent		-31		
	Volume Change, percent	+60(max)	+47.7		
F19	LOW-TEMP BRITTLNESS POINT TEST				
	3 minute @ -55°C				
	Sample type: T-50	no-cracks	pass	D2137-11C	
	Coolant: Isopropyl Alcohol				
	Brittleness temp to nearest 1°C				