
Compound S75RD12 Data Sheet

Material: Silicone Metal Detectable
75 Durometer, Red

General Information:

Metal Detectable O-Rings perform similarly to conventional elastomer o-rings with regards to tolerance for high and low temperatures, mechanical stress, and resistance to corrosive chemicals. They are typically used with detection equipment to identify contamination. Silicones have excellent heat, ozone and corona resistance and have good dielectric stability and resistance to many oils, chemicals and solvents. Silicones possess the best flexible property at low temperature but have low tensile strength and poor wear and tear resistance.

Cure System: *Peroxide-cured*

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

Attributes:

Color: Red

Durometer Shore A: 75±5

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 S75RD12

MATERIAL: SILICONE, RED, METAL DETECTABLE

DUROMETER: 75

COLOR: RED

ASTM* D2000 M7GE705 EA14 EO36 Z:HD75+/5

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SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Durometer Hardness(1 sec) Shore A	80±5	76	D2240
	International Hardness, point		79	D1415
	Tensile Strength, psi, Die C	725	999	D412
	Elongation at Break, %, Die C	150	322	D412
	Tear Resistance, kgf/cm, Die C		19	D624
	Tear Resistance, kgf/cm, Die B		15	D624
	Modulus at 100%, psi, Die C		422	D412
	Modulus at 200%, psi, Die C		663	D412
	Modulus at 300%, psi, Die C		937	D412
	Specific Gravity		1.28	
	Shrinkage rate, %		-3.7	
EA14	FLUID RESISTANCE			D471
	70 hours at 100°C			
	Hardness Change, points	±5	1	
	Tensile Strength Change, percent		-10	
	Elongation Change, percent		-7	
EO36	FLUID RESISTANCE IRM 903			D471
	70 hours at 150°C			
	Hardness Change, points	-40	-29	
	Tensile Strength Change, percent		-21	
	Elongation Change, percent		-25	
XX-D471-EO16	FLUID RESISTANCE IRM 901			D471
	70 hours at 150°C			
	Hardness Change, points		-4	
	Tensile Strength Change, percent		-10	
	Elongation Change, percent		-15	
XX-D573-A18	HEAT RESISTANCE			D573
	70 hours @ 200°C			
	Hardness Change, points		7	
	Tensile Change, max, percent		-22	
	Elongation Change, max, percent		-44	
	Volume Change, percent		-4.1	

XX-D573-A19	FLUID RESISTANCE FUEL C 50% ISO-OCTANE+50% TOLUENE			D573
	70 hours @ 225°C			
	Hardness Change, points		9	
	Tensile Change, max, percent		-33	
	Elongation Change, max, percent		-60	
	Volume Change, percent		-6.3	
XX-D395-B37	COMPRESSION SET		66.9	D395
	175°C at 22h, %, Max			
D1329-TR10	TR Test D1329-TR10 ASTM D1329 51mm die 50%elongation, retraction 10% min		-44.3	D1329
DIN53512	Rebound resilience resistance		41.2	

*American Society for Testing and Materials