
Compound V90101 Data Sheet

Material: Fluorocarbon Rubber (FKM)
90 Durometer, Black

General Information:

FKM is a high-performance rubber that has excellent resistance to high temperature, ozone, weather, oxygen, mineral oil, fuels, hydraulic fluids, aromatics and many organic solvents and chemicals.

Cure System: *Bisphenol-cured*

Standard FKM compounds are Bisphenol cured. FKM compounds with peroxide-cured possess better acid solution resistance than the bisphenol cured, and can replace litharge-cured applied in acid solution. In Some lubricants adding a few organic amide or amine, choosing peroxide curing system Viton® will be better than bisphenol curing system.

Temperature Range: -26°C (-15°F) to 232°C (450°F)

Attributes:

Color: Black

Durometer Shore A: 90±5

Shelf-life: Unlimited

Performs Well In:

- Petroleum Products
- Fuel or blend with methanol or ethanol
- Diesel or blend with biodiesel
- Mineral oil and grease
- Silicone oil and grease
- High vacuum
- Ozone, weather and very high temp. air
- Strong acid

Doesn't Perform Well In:

- Ketones
- Low molecular weight organic acids
- Superheat steam
- Low molecular weight esters and ethers
- Phosphate ester based hydraulic fluids

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TEST REPORT FOR COMPOUND V90101

MATERIAL: FLUOROCARBON RUBBER

DUROMETER: 90

COLOR: BLACK

ASTM D2000 M2HK910 A1-10 B38 EF31 EO78 EO88 Z1

SECTION OF SPEC.	PROPERTIES	REQUIREMENTS	RESULTS	ASTM TEST METHOD
	ORIGINAL PHYSICAL PROPERTIES			
	Hardness, Shore A	95±5	90.5	D2240-05
	Tensile Strength, psi (MPa)	1450(10)(min)	2117(14.6)	D412-06a
	Elongation, min, percent	100(min)	131	D412-06a
	Modulus @ 100%, psi (Mpa)		1770(12.21)	D412-06a
	Specific Gravity,(g/cm ³)		1.84	
A1-10	HEAT RESISTANCE 70 hours at 250°C			D573-04
	Hardness Change, points	+10(max)	+3	
	Tensile Strength Change, percent	-25(max)	+1	
	Elongation Change, percent	-25(max)	-7	
	Weight Change, percent		-1.6	
B38	COMPRESSION SET 22 hours at 200°C	50%(plied)(max)	17.7	D395-03B
EF31	ASTM FUEL C RESISTANCE 70 hours @ 23°C			D471-12a
	Hardness Change, points	±5	-2	
	Tensile Change, max, percent	-25(max)	-5	
	Elongation Change, max, percent	-20(max)	+2	
	Volume Change, percent	0~+10	+2.5	
EO78	ASTM NO. 101 OIL 70 hours at 200°C			D471-12a
	Hardness Change, points	-15~+5	-7	
	Tensile Change, max, percent	-40(max)	-5	
	Elongation Change, max, percent	-20(max)	+14	
	Volume Change	0~+15	+8.7	
EO88	HATCO 7700 OIL 70 hours at 200°C			D471-12a
	Hardness Change, points	-15~+5	-10	
	Tensile Change, max, percent	-40(max)	-10	
	Elongation Change, max, percent	-20(max)	-2	
	Volume Change, percent	+25(max)	+12.7	
Z1	LOW TEMP RETRACTION TEST (TR) Testing Elongation 50%, The Equipment of measure temperature: thermocouple, Length of Sample: 51 mm, Rate of Temperature increasing: 1°C/min, Test Temperature: 26 °C, Coolant : Methanol,			D1329-08
			-17.2	

*American Society for Testing and Materials

Information within this report is believed to be accurate and reliable. However, Global O-Ring and Seal makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.

Date: 3/7/2016