
Compound E70116 Data Sheet

Material: Ethylene Propylene (EPDM)
Black, 70 Durometer, NSF 61

General Information:

EPDM possesses an excellent resistance to ozone, sunlight and weathering, and has very good flexibility at low temperature, good chemical resistance (many dilute acids and alkalis as well as polar solvents) and good electrical insulation property.

Cure System: *Peroxide-cured*

Peroxide-cured compounds typically provide increased compression set resistance, higher temperature performance, higher ultimate tensile strength, and increased chemical resistance.

Temperature Range: -55°C (-67°F) to 150°C (302°F)

Attributes:

NSF 61 Certified
FDA 21 CFR Compliant
Peroxide-cured
Meets ASTM D471 Fluid Resistance
Shelf-life: Unlimited

Performs Well In:

Alcohols
Automotive brake fluid
Ketones
Dilute acids and alkalis
Silicone oils and greases
Steam up to 204.4°C (400°F)
Water
Phosphate ester based hydraulic fluids
Ozone, aging and weather

Doesn't Perform Well In:

Aliphatic and aromatic hydrocarbons
Di-ester based lubricants
Halogenated solvents
Petroleum based oils and greases

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Material Test Report

Compound E70116

EPDM, Black, NSF 61

GENERAL		
Material:	EPDM	
Durometer:	70	
Color:	Black	
ASTM* D2000 Callout:	M3DA710 A26 B36 C32 EA14 G11 G21 F19 Z1	
ORIGINAL PROPERTIES	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness, (Shore A) (ASTM D2240-15)	70±5	72
Tensile Strength, psi(MPa) (ASTM D412-16)	1450(10)(min)	2444(16.86)
Elongation, (%) (ASTM D412-16)	200(min)	206
Modulus at 100%, psi(MPa) (ASTM D412-16)		880(6.07)
Density, (Mg/m ³) (CNS 5341-96, Method A)		1.09
TEAR RESISTANCE, G11	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
ASTM D624-00	17kN/m(Die B)(min)	36.87
TEAR RESISTANCE, G21	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
ASTM D624-00	17kN/m(Die C)(min)	23.64
HEAT AGE, A26 (70 hrs @ 150°C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness Change, pts., ASTM D865-11	+10(max)	-1
Tensile Strength Change, %, ASTM D865-11	-20(max)	-1
Elongation Change, %, ASTM D865-11	-20(max)	+4
Weight Change, %, ASTM D865-11		+0.2
COMPRESSION SET, B36 (22 hrs @ 150 °C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
ASTM D395-18, Method B	25%(plied)(max)	16.1
WATER RESISTANCE, EA14 (70 hrs @ 100 °C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness Change, pts., ASTM D471-16a		0
Tensile Strength Change, %, ASTM D471-16a		-3
Elongation Change, %, ASTM D471-16a		0
Volume Change, %, ASTM D471-16a	±5	+0.3
LOW-TEMP BRITTLENESS, F19 (3 minute @ -55 °C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Sample type: T-50,, ASTM D2137-11, Method C		
Coolant : Isopropyl alcohol		
Low Temperature Property	no cracks	PASS
OZONE RESISTANCE, C32	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
50 pphm (70 hrs @ 40 °C), ASTM D1171-18	no cracks	PASS

*American Society for Testing and Materials

Report Date: 5/4/2020

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