

Material Test Report

Compound E90192

EPDM, Black, R744 Refrigerant Compatible

GENERAL		
Material:	EPDM	
Durometer:	90	
Color:	Black	
Temperature Range:	-30°C (-22°F) to 150°C (302°F)	
Cure System:	Peroxide-cured	
ASTM* D2000 Callout:	M3DA910 A26 B36 EA14 F19 Z1	
ORIGINAL PROPERTIES	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness, (Shore A) (ASTM D2240-15)	90±5	91
Tensile Strength, psi(MPa) (ASTM D412-16)	1450(10)(min)	3610(24.90)
Elongation, (%) (ASTM D412-16) (Z1)	125(min)	172
Modulus at 100%, psi(MPa) (ASTM D412-16)		2281(15.73)
Density, (Mg/m³) (CNS 5341-96, Method A)		1.26
HEAT AGE, A26 (70 hrs. @ 150°C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness Change, pts.	+10(max)	+1
Tensile Strength Change, %	-20(max)	-3
Elongation Change, %	-20(max)	-1
Weight Change, %		+0.2
COMPRESSION SET, B36 (22 hrs. @ 150°C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
ASTM D395-18, Method B	25%(plied)(max)	17.3
WATER RESISTANCE, EA14 (70 hrs. @ 100°C)	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
Hardness Change, pts.		0
Tensile Strength Change, %		-2
Elongation Change, %		+1
Volume Change, %	±5	+1.1
LOW TEMP BRITTLENESS POINT TEST, F19	ASTM D2000 REQUIREMENT	TYPICAL RESULTS
3 min. @ -55°C, ASTM D2137-11, Method C		
Sample type: T-50		
Coolant : Isopropyl alcohol		
Low Temperature Property		no crack

*American Society for Testing and Materials

Report Date: 10/13/2023

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.