



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	E90-B101	MATERIAL	EPDM
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	R744 Compatible	REPORT DATE	2023-10-13
TEMP RANGE	-30°C (-22°F) to 150°C (302°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M3DA910 A26 B36 EA14 F19 Z1		

PHYSICAL PROPERTIES					
PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	91	90 ±5
Tensile Strength	D412-16	-	MPa (PSI)	24.9 (3,611)	10 (1,450) min
(Z1) Elongation at Break	D412-16	-	%	172	125 min
100% Modulus	D412-16	-	MPa (PSI)	15.7 (2,281)	-
Density	CNS 5341-96, Method A	-	Mg/m ³	1.26	-

A26 – HEAT RESISTANCE					
PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D865-11	70 Hrs @ 150°C (302°F)	points	1	10 max
Tensile Strength Change	D865-11	70 Hrs @ 150°C (302°F)	%	-3	-20 max
Elongation Change	D865-11	70 Hrs @ 150°C (302°F)	%	-1	-20 max
Weight Change	D865-11	70 Hrs @ 150°C (302°F)	%	0.2	-

B36 – COMPRESSION SET					
PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 150°C (302°F) (plied)	%	17.3	25 max

EA14 – FLUID RESISTANCE, WATER RESISTANCE					
PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	0	-
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	-2	-
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	1	-
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	1.1	±5

F19 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11, Method C	3 (minute) @ -55°C (-67°F)	-	no crack	-

ADDITIONAL APPROVALS

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Data shown is based on supplier testing of compound slabs/buttons and is provided for general reference only.