



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N50-B101	MATERIAL	NBR
DUROMETER	50 Shore A	COLOR	Black
DESIGNATION	General Purpose	REPORT DATE	2018-10-09
TEMP RANGE	-35°C (-31°F) to 120°C (248°F)	CURE SYSTEM	Sulfur
SPECIFICATION	ASTM D2000 M2BG510 A14 B14 EA14 EF11 F17		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15 ^{E1}	-	Shore A	50	50 ±5
Tensile Strength	D412-16	-	MPa (PSI)	12.5 (1,819)	10 (1,450) min
Elongation at Break	D412-16	-	%	426	300 min
100% Modulus	D412-16	-	MPa (PSI)	1.62 (235)	-
Density	CNS 5341-96,Method A	-	Mg/m ³	1.27	-

A14 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 100°C (212°F)	points	6	±15
Tensile Strength Change	D573-04	70 Hrs @ 100°C (212°F)	%	2	±30
Elongation Change	D573-04	70 Hrs @ 100°C (212°F)	%	-28	-50 max
Weight Change	D573-04	70 Hrs @ 100°C (212°F)	%	-1	-

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-16 ^{E1} ,Method B	22 Hrs @ 100°C (212°F)	%	12.6	-

EA14 – FLUID RESISTANCE, WATER RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	2	±10
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	-3	-
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	-18	-
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	7.3	±15

EF11 – FLUID RESISTANCE, ASTM FUEL A RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 23°C (73°F)	points	1	±10
Tensile Strength Change	D471-16a	70 Hrs @ 23°C (73°F)	%	-9	-25 max
Elongation Change	D471-16a	70 Hrs @ 23°C (73°F)	%	-9	-25 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	-3.8	-5 to 10

F17 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11,Method C	3 minute @ -40°C (-40°F)	-	PASS	-

ADDITIONAL APPROVALS

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