MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N50-B102	MATERIAL	NBR
DUROMETER	50 Shore A	COLOR	Black
DESIGNATION	UL157	REPORT DATE	2020-11-21
TEMP RANGE	-40°C (-40°F) to 100°C (212°F)	CURE SYSTEM	Sulfur
SPECIFICATION	ASTM D2000 M2BG510 A14 B14 EA14 EO14 EO34 Z1		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	ASTMD2240-15$^{\varepsilon 1}$	–	Shore A	**52**	50 ±5
Tensile Strength	ASTMD412-16	–	MPa (PSI)	**11.7 (1,694)**	10 (1,450) min
Elongation at Break	ASTMD412-16	–	%	**587**	300 min
100% Modulus	ASTMD412-16	–	MPa (PSI)	**2.1 (305)**	–
Density	CNS5341-96	–	Mg/m^3	**1.24**	–

A14 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 100°C (212°F)	points	**2**	±15
Tensile Strength Change	D573-04	70 Hrs @ 100°C (212°F)	%	**0**	±30
Elongation Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-3**	-50 max
Weight Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-2.2**	–

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 100°C (212°F)	%	**13**	–

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)	%	**7**	–
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**2**	–
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**7.2**	±15

EO14 – FLUID RESISTANCE, IRM 901 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	**8**	-5 to 10
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**3**	-25 max
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-15**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-9.3**	-10 to 5

EO34 – FLUID RESISTANCE, IRM 903 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	**-2**	-10 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**14**	-45 max
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-1**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**4.3**	0 to 25

ADDITIONAL APPROVALS

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