MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N70-B102	MATERIAL	NBR
DUROMETER	70 Shore A	COLOR	Black
DESIGNATION	General Purpose	REPORT DATE	2022-11-14
TEMP RANGE	–	CURE SYSTEM	–
SPECIFICATION	ASTM D2000 M2BG710 A14 B14 B34 EA14 EF11 EF21 EO14 EO34 F17		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	–	Shore A	**68**	70 ±5
Tensile Strength	D412-16	–	MPa (PSI)	**19.5 (2,824)**	10 (1,450) min
Elongation at Break	D412-16	–	%	**381**	250 min
100% Modulus	D412-16	–	MPa (PSI)	**3.7 (537)**	–
Density	CNS 5341-96,Method A	–	Mg/m^3	**1.23**	–

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)	%	**4**	±30
Elongation Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-8**	-50 max
Weight Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-0.3**	–

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 100°C (212°F)	%	**4.9**	–

B34 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 100°C (212°F) (plied)	%	**8.6**	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	**-4**	±10
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-2**	–

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-11**	–
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**6.6**	±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)	%	**-10**	-25 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**1.4**	-5 to 10

EF21 – FLUID RESISTANCE, ASTM FUEL B RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 23°C (73°F)	points	**-13**	-30 to 0
Tensile Strength Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**-45**	-60 max
Elongation Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**-44**	-60 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**33.5**	0 to 40

EO14 – FLUID RESISTANCE, IRM 901 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	**-1**	-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)	%	**-8**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-1.8**	-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	**-6**	-10 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-1**	-45 max
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-8**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**9.3**	0 to 25

F17 – LOW-TEMPERATURE RESISTANCE

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