



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N90-A101	MATERIAL	NBR
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	General Purpose	REPORT DATE	9/12/2022
TEMP RANGE	-25°C (-13°F) to 121°C (250°F)	CURE SYSTEM	Sulfur
SPECIFICATION	ASTM D2000 M7BG910 A14 B14 EA14 EF11 EF21 EO14 EO34		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240	-	Shore A	86.5	90 ±5
Tensile Strength	D412	-	MPa (PSI)	17 (2,464)	10 (1,450) min
Elongation at Break	D412	-	%	158	100 min
Specific Gravity	D297	-	g/cm ³	1.34	-

A14 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573	70h @ 100°C (212°F)	pts	2	±15
Tensile Strength Change	D573	70h @ 100°C (212°F)	%	3	±30
Elongation Change	D573	70h @ 100°C (212°F)	%	-18.5	-50 max

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395	22h @ 100°C (212°F)	%	10.4	25 max

EA14 – FLUID RESISTANCE, DISTILLED WATER

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 100°C (212°F)	pts	-3	±10
Volume Change	D471	70h @ 100°C (212°F)	%	4.1	±15

EF11 – FLUID RESISTANCE, FUEL A

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 23°C (73°F)	pts	-2	±10
Tensile Strength Change	D471	70h @ 23°C (73°F)	%	-3.5	-25 max
Elongation Change	D471	70h @ 23°C (73°F)	%	-2.5	-25 max

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Volume Change	D471	70h @ 23°C (73°F)	%	2.2	-5 to 10

EF21 – FLUID RESISTANCE, FUEL B

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 23°C (73°F)	pts	-14	-30 to 0
Tensile Strength Change	D471	70h @ 23°C (73°F)	%	-27.5	-60 max
Elongation Change	D471	70h @ 23°C (73°F)	%	-24.5	-60 max
Volume Change	D471	70h @ 23°C (73°F)	%	19.8	0 to 40

E014 – FLUID RESISTANCE, IRM 901 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 100°C (212°F)	pts	2	±5
Tensile Strength Change	D471	70h @ 100°C (212°F)	%	-3.5	-25 max
Elongation Change	D471	70h @ 100°C (212°F)	%	-14.5	-45 max
Volume Change	D471	70h @ 100°C (212°F)	%	-3.1	-10 to 5

E034 – FLUID RESISTANCE, IRM 903 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 100°C (212°F)	pts	-3	-10 to 5
Tensile Strength Change	D471	70h @ 100°C (212°F)	%	-0.5	-45 max
Elongation Change	D471	70h @ 100°C (212°F)	%	-18.5	-45 max
Volume Change	D471	70h @ 100°C (212°F)	%	6.6	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.