



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N70-C102	MATERIAL	NBR
DUROMETER	70 Shore A	COLOR	Black
DESIGNATION	Low Temp	REPORT DATE	2020-09-18
TEMP RANGE	-40°C (-40°F) to 105°C (221°F)	CURE SYSTEM	Sulfur
SPECIFICATION	ASTM D2000 M2BG714 B14 EF11 EF21 EA14 EO14 EO34 F17		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	66	70 ±5
Tensile Strength	D412 - 16	-	MPa (PSI)	16.6 (2,408)	14 (2,031) min
Elongation at Break	D412 - 16	-	%	307	250 min
Specific Gravity	D297-19	-	g/cm ³	1.2	-

HEAT AGING

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D2240	70h @ 212°F (100°C)	points	3	±15
Tensile Strength Change	D412	70h @ 212°F (100°C)	%	12	±30
Elongation Change	D412	70h @ 212°F (100°C)	%	-14	-50 max

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18	22h @ 212°F (100°C)	%	15	25 max

EA14 – FLUID RESISTANCE, WATER RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	Water Resistance, 70h @ 212°F (100°C)	points	-4	±10
Volume Change	D471	Water Resistance, 70h @ 212°F (100°C)	%	-6	±15

EF11 – FLUID RESISTANCE, FUEL A

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16	Fuel A, 70h @ 73°F (23°C)	points	2	±10
Tensile Strength Change	D471-16	Fuel A, 70h @ 73°F (23°C)	%	-12	-25 max
Elongation Change	D471-16	Fuel A, 70h @ 73°F (23°C)	%	-10	-25 max

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Volume Change	D471-16	Fuel A, 70h @ 73°F (23°C)	%	-2	-5 to 10

EF21 – FLUID RESISTANCE, FUEL B

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	Fuel B, 70h @ 73°F (23°C)	points	-13	-30 to 0
Tensile Strength Change	D471	Fuel B, 70h @ 73°F (23°C)	%	-22	-60 max
Elongation Change	D471	Fuel B, 70h @ 73°F (23°C)	%	-19	-60 max
Volume Change	D471	Fuel B, 70h @ 73°F (23°C)	%	23	0 to 40

E014 – FLUID RESISTANCE, IRM 901 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16	IRM 901 Oil, 70h @ 212°F (100°C)	points	4	-5 to 10
Tensile Strength Change	D471-16	IRM 901 Oil, 70h @ 212°F (100°C)	%	2	-25 max
Elongation Change	D471-16	IRM 901 Oil, 70h @ 212°F (100°C)	%	-18	-45 max
Volume Change	D471-16	IRM 901 Oil, 70h @ 212°F (100°C)	%	-5	-10 to 5

E034 – FLUID RESISTANCE, IRM903 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	IRM903 Oil, 70h @ 212°F (100°C)	points	-5	-10 to 5
Tensile Strength Change	D471	IRM903 Oil, 70h @ 212°F (100°C)	%	3	-45 max
Elongation Change	D471	IRM903 Oil, 70h @ 212°F (100°C)	%	-17	-45 max
Volume Change	D471	IRM903 Oil, 70h @ 212°F (100°C)	%	11	0 to 25

F17 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11(18)	3 min @ -40°F (-40°C)	-	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.