MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	N70-B106	**MATERIAL**	NBR
DUROMETER	70 Shore A	**COLOR**	Black
DESIGNATION	NSF 61	**REPORT DATE**	2024-01-02
TEMP RANGE	-40°C (-40°F) to 100°C (212°F)	**CURE SYSTEM**	Sulfur
SPECIFICATION	ASTM D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34 F17 Z1 Z2 B34		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	–	Shore A	**72**	70 ±5
Tensile Strength	D412-16	–	MPa (PSI)	**16.5 (2,390)**	10 (1,450) min
Elongation at Break	D412-16	–	%	**298**	250 min
100% Modulus	D412-16	–	MPa (PSI)	**4.51 (654)**	–
Density	CNS 5341-96, Method A	–	Mg/m^3	**1.25**	–

A14 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 100°C (212°F)	points	**3**	±15
Tensile Strength Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-8**	±30
Elongation Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-28**	-50 max
Weight Change	D573-04	70 Hrs @ 100°C (212°F)	%	**-0.5**	–

B14 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 100°C (212°F)	%	**8.8**	–

B34 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 100°C (212°F) (plied)	%	**17.9**	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	**-3**	±10
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-14**	–

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-26**	–
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**5.1**	±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	**-2**	±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)	%	**-21**	-25 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**1**	-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	**-12**	-30 to 0
Tensile Strength Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**-36**	-60 max
Elongation Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**-38**	-60 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	**18.5**	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	**8**	-5 to 10
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-2**	-25 max
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-19**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-7.5**	-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)	%	**-4**	-45 max
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**-26**	-45 max
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	**1.9**	0 to 25

F17 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11,Method C	3 minute @ -40°C (-40°F)	–	**no crack**	–

ADDITIONAL APPROVALS

FDA

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