



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	H90-B101	MATERIAL	HNBR
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	General Purpose	REPORT DATE	2023-11-10
TEMP RANGE	-	CURE SYSTEM	-
SPECIFICATION	ASTM D2000 M4DH910 A26 B36 EO16 EO36 F17		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness, (IRHD)	D1415-18	-	Shore A	88.1	85 to 95
Tensile Strength	D412-16	-	MPa (PSI)	27.1 (3,928)	10 (1,450) min
Elongation at Break	D412-16	-	%	178	100 min
100% Modulus	D412-16	-	MPa (PSI)	15.5 (2,248)	-
Density	CNS 5341-96, Method A	-	Mg/m ³	1.3	-

A26 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D865-11	70 Hrs @ 150°C (302°F)	points	3	10 max
Tensile Strength Change	D865-11	70 Hrs @ 150°C (302°F)	%	3	-15 max
Elongation Change	D865-11	70 Hrs @ 150°C (302°F)	%	-6	-25 max
Weight Change	D865-11	70 Hrs @ 150°C (302°F)	%	-0.3	-

B36 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 150°C (302°F) (plied)	%	26.5	35 max

EO16 – FLUID RESISTANCE, IRM 901 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 150°C (302°F)	points	-2	-5 to 10
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-1	-20 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-12	-30 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-3	-10 to 5

E036 – FLUID RESISTANCE, IRM 903 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 150°C (302°F)	points	-6	-15 max
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-4	-40 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-7	-30 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	8.5	25 max

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

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