



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	H90-B102	MATERIAL	HNBR
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	RGD, General Purpose	REPORT DATE	2022-03-29
TEMP RANGE	-25°C (-13°F) to 150°C (302°F)	CURE SYSTEM	-
SPECIFICATION	ASTM D2000 M4DH910 A26 B36 EO16 EO36 F17		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	88	90 ±5
Tensile Strength	D412-16	-	MPa (PSI)	28.8 (4,183)	10 (1,450) min
Elongation at Break	D412-16	-	%	148	100 min
100% Modulus	D412-16	-	MPa (PSI)	17.4 (2,518)	-
Density	CNS 5341-96,Method A	-	Mg/m <sup>3</sup>	1.29	-

## A26 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D865-11	70 Hrs @ 150°C (302°F)	points	1	10 max
Tensile Strength Change	D865-11	70 Hrs @ 150°C (302°F)	%	-4	-15 max
Elongation Change	D865-11	70 Hrs @ 150°C (302°F)	%	-17	-25 max
Weight Change	D865-11	70 Hrs @ 150°C (302°F)	%	0	-

## B36 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 150°C (302°F) (plied)	%	24.2	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	0	-5 to 10
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-5	-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)	%	0	-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	-9	-15 max
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-14	-40 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-8	-30 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	12.1	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)	-	pass	pass

**ADDITIONAL APPROVALS**

NORSOK M-710

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