



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	V90-B107	MATERIAL	FKM
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	RGD, Low Temp	REPORT DATE	2020-05-26
TEMP RANGE	-50°C (-58°F) to 250°C (482°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M3HK910 B37 B38 E078 Z1 Z2 Z3		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	89.5	90 ±5
Tensile Strength	D412-16	-	MPa (PSI)	15.4 (2,226)	10 (1,450) min
(Z1) Elongation at Break	D412-16	-	%	103	50 min
100% Modulus	D412-16	-	MPa (PSI)	15.3 (2,216)	-
Density	CNS 5341-96,Method A	-	Mg/m <sup>3</sup>	1.85	-

## B37 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-16 <sup>e1</sup> ,Method B	22 Hrs @ 175°C (347°F) (plied)	%	17.4	30 max

## B38 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-16 <sup>e1</sup> ,Method B	22 Hrs @ 200°C (392°F) (plied)	%	22.7	50 max

## E078 – FLUID RESISTANCE, ASTM NO. 101 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 200°C (392°F)	points	-5	-15 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 200°C (392°F)	%	-19	-40 max
Elongation Change	D471-16a	70 Hrs @ 200°C (392°F)	%	-7	-20 max
Volume Change	D471-16a	70 Hrs @ 200°C (392°F)	%	6.5	0 to 15

## Z2 – LOW TEMPERATURE RETRACTION TEST (TR TEST )

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
TR10, °C	D1329-16	-	-	-44.7	-

## ADDITIONAL APPROVALS

NORSOK M-710

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