



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	V90-B104	MATERIAL	FKM
DUROMETER	90 Shore A	COLOR	Black
DESIGNATION	RGD, Low Temp	REPORT DATE	2022-11-16
TEMP RANGE	-40°C (-40°F) to 250°C (482°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M3HK914 A1-10 B37 B38 EF31 EO78		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	93	90 ±5
Tensile Strength	D412-16	-	MPa (PSI)	18.9 (2,747)	14 (2,031) min
Elongation at Break	D412-16	-	%	130	100 min
100% Modulus	D412-16	-	MPa (PSI)	14.2 (2,058)	-
Density	CNS 5341-96,Method A	-	Mg/m ³	1.84	-

A1-10 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 250°C (482°F)	points	2	10 max
Tensile Strength Change	D573-04	70 Hrs @ 250°C (482°F)	%	-15	-25 max
Elongation Change	D573-04	70 Hrs @ 250°C (482°F)	%	2	-25 max
Weight Change	D573-04	70 Hrs @ 250°C (482°F)	%	-2	-

B37 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 175°C (347°F) (plied)	%	22	30 max

B38 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 200°C (392°F) (plied)	%	23	50 max

EF31 – FLUID RESISTANCE, ASTM FUEL C RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 23°C (73°F)	points	-3	±5
Tensile Strength Change	D471-16a	70 Hrs @ 23°C (73°F)	%	-10	-25 max

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Elongation Change	D471-16a	70 Hrs @ 23°C (73°F)	%	7	-20 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	3.6	0 to 10

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	-8	-15 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 200°C (392°F)	%	-7	-40 max
Elongation Change	D471-16a	70 Hrs @ 200°C (392°F)	%	20	-20 max
Volume Change	D471-16a	70 Hrs @ 200°C (392°F)	%	11.6	0 to 15

ADDITIONAL APPROVALS

NORSOK M-710, NACE TM027, Total GS EP PVV 142, API 6A

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