



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	V70-B101	MATERIAL	FKM
DUROMETER	70 Shore A	COLOR	Black
DESIGNATION	UL157	REPORT DATE	2022-03-23
TEMP RANGE	-40°C (-40°F) to 250°C (482°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M2HK710 A1-10 B37 B38 EF31 EO78 EO88 F15 Z1		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	71	70 ±5
Tensile Strength	D412-16	-	MPa (PSI)	16.9 (2,447)	10 (1,450) min
Elongation at Break	D412-16	-	%	255	175 min
100% Modulus	D412-16	-	MPa (PSI)	4.48 (650)	-
Density	CNS 5341-96, Method A	-	Mg/m <sup>3</sup>	1.88	-

## A1-10 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 250°C (482°F)	points	1	10 max
Tensile Strength Change	D573-04	70 Hrs @ 250°C (482°F)	%	-24	-25 max
Elongation Change	D573-04	70 Hrs @ 250°C (482°F)	%	50	-25 max
Weight Change	D573-04	70 Hrs @ 250°C (482°F)	%	-1.4	-

## B37 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 175°C (347°F) (plied)	%	15.7	50 max

## B38 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 200°C (392°F) (plied)	%	20.8	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)	%	-25	-25 max

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Elongation Change	D471-16a	70 Hrs @ 23°C (73°F)	%	<b>-15</b>	-20 max
Volume Change	D471-16a	70 Hrs @ 23°C (73°F)	%	<b>4.8</b>	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	<b>-4</b>	-15 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>-20</b>	-40 max
Elongation Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>-9</b>	-20 max
Volume Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>8.5</b>	0 to 15

### E088 – FLUID RESISTANCE, MOBIL JET OIL II

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 200°C (392°F)	points	<b>-4</b>	-15 to 5
Tensile Strength Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>-15</b>	-40 max
Elongation Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>-6</b>	-20 max
Volume Change	D471-16a	70 Hrs @ 200°C (392°F)	%	<b>6.3</b>	25 max

### F15 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11, Method C	3 minute @ -25°C (-13°F)	-	<b>pass</b>	pass

### ADDITIONAL APPROVALS

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