



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	H80-B701	MATERIAL	HNBR
DUROMETER	80 Shore A	COLOR	Green
DESIGNATION	General Purpose	REPORT DATE	2021-03-23
TEMP RANGE	-	CURE SYSTEM	-
SPECIFICATION	ASTM D2000 M2DH810 A26 B16 B36 EO16 EO36 F17 Z1		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15 <sup>E1</sup>	-	Shore A	82	80 ±5
Tensile Strength	D412-16	-	MPa (PSI)	25.4 (3,690)	10 (1,450) min
Elongation at Break	D412-16	-	%	341	175 min
100% Modulus	D412-16	-	MPa (PSI)	7.82 (1,134)	-
Density	CNS 5341-96, Method A	-	Mg/m <sup>3</sup>	1.35	-

## A26 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D865-11	70 Hrs @ 150°C (302°F)	points	2	10 max
Tensile Strength Change	D865-11	70 Hrs @ 150°C (302°F)	%	-8	-25 max
Elongation Change	D865-11	70 Hrs @ 150°C (302°F)	%	-7	-30 max
Weight Change	D865-11	70 Hrs @ 150°C (302°F)	%	0.6	-

## B16 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 150°C (302°F)	%	12.2	-

## B36 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-16 <sup>E1</sup> , Method B	22 Hrs @ 150°C (302°F) (plied)	%	25.7	50 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)	%	-10	-20 max

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-13</b>	-30 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-1.5</b>	±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	<b>-7</b>	-15 max
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-15</b>	-40 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-8</b>	-40 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>11.2</b>	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)	-	<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.