



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	S70-B401	MATERIAL	Silicone
DUROMETER	70 Shore A	COLOR	Blue
DESIGNATION	Medical Grade	REPORT DATE	2021-03-22
TEMP RANGE	-55°C (-67°F) to 200°C (392°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M5GE706 A19 B37 EA14 EO16 EO36 F19 G11		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15 <sup>E1</sup>	-	Shore A	70	70 ±5
Tensile Strength	D412-16	-	MPa (PSI)	9.65 (1,400)	6 (870) min
Elongation at Break	D412-16	-	%	396	150 min
100% Modulus	D412-16	-	MPa (PSI)	2.28 (331)	-
Density	CNS5341-96,METHOD A	-	Mg/m <sup>3</sup>	1.2	-

## A19 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 225°C (437°F)	points	7	10 max
Tensile Strength Change	D573-04	70 Hrs @ 225°C (437°F)	%	-19	-25 max
Elongation Change	D573-04	70 Hrs @ 225°C (437°F)	%	-7	-30 max
Weight Change	D573-04	70 Hrs @ 225°C (437°F)	%	-1.9	-

## B37 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18,Method B	22 Hrs @ 175°C (347°F) (plied)	%	12.7	25 max

## EA14 – FLUID RESISTANCE, WATER RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	1	±5
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	4	-
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	12	-
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	0.3	±5

**E016 – FLUID RESISTANCE, IRM 9010IL**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 150°C (302°F)	points	-6	-15 to 0
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-6	-20 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	1	-20 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	4.9	0 to 10

**E036 – FLUID RESISTANCE, IRM 903 OIL**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 150°C (302°F)	points	-29	-30 max
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-28	-
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	-26	-
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	42.9	60 max

**F19 – LOW-TEMPERATURE RESISTANCE**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11,Method C	3 minute @ -55°C (-67°F)	-	PASS	-

**G11 – TEAR RESISTANCE**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Tear Strength (Die B)	D624-00	-	kN/m (lbf/in)	22.3 (127)	-

**ADDITIONAL APPROVALS**

USP Class VI, ISO 10993-5

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