



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	E70-B502	MATERIAL	EPDM
DUROMETER	70 Shore A	COLOR	White
DESIGNATION	Medical Grade	REPORT DATE	2021-01-21
TEMP RANGE	-55°C (-67°F) to 125°C (257°F)	CURE SYSTEM	-
SPECIFICATION	ASTM D2000 M5CA710 A25 B35 EA14 F17 G11 Z1		

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15 <sup>E1</sup>	-	Shore A	69	70 ±5
Tensile Strength	D412-16	-	MPa (PSI)	10.7 (1,549)	10 (1,450) min
Elongation at Break	D412-16	-	%	324	200 min
100% Modulus	D412-16	-	MPa (PSI)	4.19 (608)	-
Density	CNS 5341-96, Method A	-	Mg/m <sup>3</sup>	1.26	-

## A25 – HEAT RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D865-11	70 Hrs @ 125°C (257°F)	points	0	10 max
Tensile Strength Change	D865-11	70 Hrs @ 125°C (257°F)	%	-3	-20 max
Elongation Change	D865-11	70 Hrs @ 125°C (257°F)	%	2	-40 max
Weight Change	D865-11	70 Hrs @ 125°C (257°F)	%	0.2	-

## B35 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395-18, Method B	22 Hrs @ 125°C (257°F) (plied)	%	14.4	50 max

## EA14 – FLUID RESISTANCE, WATER RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 100°C (212°F)	points	-3	-
Tensile Strength Change	D471-16a	70 Hrs @ 100°C (212°F)	%	-13	-
Elongation Change	D471-16a	70 Hrs @ 100°C (212°F)	%	6	-
Volume Change	D471-16a	70 Hrs @ 100°C (212°F)	%	0.4	±5

**F17 – LOW-TEMPERATURE RESISTANCE**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Low Temperature Brittleness	D2137-11, Method C	3 minute @ -40°C (-40°F)	-	pass	pass

**G11 – TEAR RESISTANCE**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Tear Strength (Die B)	D624-00, Die B	-	kN/m (lbf/in)	26.4 (151)	26 (148) min

**Z1 – FRICTION RESISTANCE**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Static Coefficient	-	-	-	0.5	-
Kinetic Coefficient	-	-	-	0.41	-

**ADDITIONAL APPROVALS**

FDA

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