



# MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	F70-B401	MATERIAL	Fluorosilicone
DUROMETER	70 Shore A	COLOR	Blue
DESIGNATION	UL157	REPORT DATE	2021-12-06
TEMP RANGE	-60°C (-76°F) to 177°C (350°F)	CURE SYSTEM	Peroxide
SPECIFICATION	MIL-DTL-25988C Type I , Class 1 , Grade 70, Z1 Z2		

## PHYSICAL PROPERTIES – 24 °C (75 °F)

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	22 Hrs @ 24°C (75°F)	points	-11	-20 max
Tensile Strength Change	D471-16a	22 Hrs @ 24°C (75°F)	%	-14	-45 max
Elongation Change	D471-16a	22 Hrs @ 24°C (75°F)	%	-7	-35 max
Volume Change	D471-16a	22 Hrs @ 24°C (75°F)	%	18.7	1 to 25

## PHYSICAL PROPERTIES – 200 °C (392 °F)

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573-04	70 Hrs @ 200°C (392°F)	points	3	-5 to 10
Tensile Strength Change	D573-04	70 Hrs @ 200°C (392°F)	%	-21	-25 max
Elongation Change	D573-04	70 Hrs @ 200°C (392°F)	%	-23	-25 max
Weight Change	D573-04	70 Hrs @ 200°C (392°F)	%	-0.5	-2 max

## PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240-15	-	Shore A	70.7	70 ±5
Tensile Strength	D1414-15	-	MPa (PSI)	6.9 (1,001)	5 (750) min
Elongation at Break	D1414-15	-	%	211	125 min
100% Modulus	D1414-15	-	MPa (PSI)	3.51 (509)	-
Density	CNS 5341-96,Method A	-	Mg/m <sup>3</sup>	1.58	-

## COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression set, 70 Hrs @ 75 °F	D1414-15	70 Hrs @ 24°C (75°F)	%	8.1	-

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression set, 22 Hrs @ 347 °F	D1414-15	22 Hrs @ 175°C (347°F)	%	<b>13</b>	-

**FLUID RESISTANCE – AMS 3021 OIL**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471-16a	70 Hrs @ 150°C (302°F)	points	<b>-13</b>	±15
Tensile Strength Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-28</b>	-40 max
Elongation Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>-8</b>	-25 max
Volume Change	D471-16a	70 Hrs @ 150°C (302°F)	%	<b>9.5</b>	1 to 15
Compression Set	D1414-15	70 Hrs @ 150°C (302°F)	%	<b>20.5</b>	-

**LOW TEMPERATURE – LOW TEMPERATURE RETRACTION TEST**

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
TR10,°F	D1329-16	-	-	<b>-80.9</b>	-70 max

**ADDITIONAL APPROVALS**

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