



MATERIAL DATA SHEET

Global O-Ring and Seal, LLC

COMPOUND	F50-B401	MATERIAL	Fluorosilicone
DUROMETER	50 Shore A	COLOR	Blue
DESIGNATION	FDA	REPORT DATE	2026-04-05
TEMP RANGE	-60°C (-76°F) to 177°C (350°F)	CURE SYSTEM	Peroxide
SPECIFICATION	ASTM D2000 M2FK506 A19 C32 EF31 EO36 F19 Z1		

PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness (Shore A)	D2240	-	Shore A	48	50 ±5
Tensile Strength	D412	-	MPa (PSI)	7.05 (1,023)	6 (870) min
Elongation at Break	D412	-	%	365	150 min
100% Modulus	D412	-	MPa (PSI)	1.69 (245)	-
Specific Gravity	CNS 5341, Method A	-	g/cm ³	1.52	-

A19 – HEAT AGE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D573	70h @ 225°C (437°F)	pts	-5	15 max
Tensile Strength Change	D573	70h @ 225°C (437°F)	%	-34	-45 max
Elongation Change	D573	70h @ 225°C (437°F)	%	-22	-45 max
Weight Change	D573	70h @ 225°C (437°F)	%	-0.5	-

C32 – OZONE RESISTANCE, 50PPHM

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
-	D1171	70h @ 40°C (104°F)	-	pass	No crack

EF31 – FLUID RESISTANCE, FUEL C

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 23°C (73°F)	pts	-7	-15 to 0
Tensile Strength Change	D471	70h @ 23°C (73°F)	%	-20	-60 max
Elongation Change	D471	70h @ 23°C (73°F)	%	-17	-50 max
Volume Change	D471	70h @ 23°C (73°F)	%	24.8	0 to 25

E036 – FLUID RESISTANCE, IRM 903 OIL

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Hardness Change	D471	70h @ 150°C (302°F)	points	-3	-10 to 0
Tensile Strength Change	D471	70h @ 150°C (302°F)	%	-13	-35 max
Elongation Change	D471	70h @ 150°C (302°F)	%	-7	-40 max
Volume Change	D471	70h @ 150°C (302°F)	%	4.3	0 to 10

F19 – LOW-TEMPERATURE RESISTANCE

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Nonbrittle after 3 min at -55°C	D2137	Sample type: T-50, Coolant: Isopropyl alcohol, Brittleness temp to nearest 1°C (34°F), 3 min @ -55°C	-	pass	pass

Z1 – COMPRESSION SET

PROPERTY	TEST METHOD	CONDITION	UNITS	RESULT	REQUIREMENT
Compression Set	D395	22h @ 175°C (347°F)	%	5.8	25 max

ADDITIONAL APPROVALS

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