

## Material Datasheet

**Compound #: N70710**

**Nitrile (Buna), White, FDA Compliant**

### Material Summary

Material Type:	Nitrile (Buna)
Durometer:	70
Color:	White
Special Properties:	Meets FDA 21 CFR 177.2600
Recommended Temperature Range (Static):	-40°C to 100°C
Cure System:	Sulfur
Specification:	ASTM D2000 M2BG710 A14 B14 EA14 EF11 EF21 EO14 EO34 Z1

Original Properties	Requirements	Typical Results
Hardness, (Shore A) (ASTM D2240-15 <sup>e1</sup> )	70±5	71
Tensile Strength, psi(MPa) (ASTM D412-16)	1450(min)	1798(12.40)
Elongation, (%) (ASTM D412-16)	250(min)	376
Modulus at 100%, psi(MPa) (ASTM D412-16)		564(3.89)
Density, (Mg/m <sup>3</sup> ) (CNS 5341-96, Method A)		1.39
<b>(A14) Heat age, 70 Hrs @ 100 °C (ASTM D573-04)</b>		
Hardness Change, pts.	±15	+5
Tensile Strength Change, %	±30	-10
Elongation Change, %	-50(max)	-25
Weight Change, %		-0.9
<b>(B14) Compression Set, 22 Hrs @ 100 °C (ASTM D395-18, Method B)</b>		
-	25%(button)(max)	16.5
<b>(EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16a)</b>		
Hardness Change, pts.	±10	-1
Tensile Strength Change, %		-15
Elongation Change, %		-18
Volume Change, %	±15	+8.5
<b>(EF11) ASTM Fuel A Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)</b>		
Hardness Change, pts, Shore A	±10	-3
Tensile Strength Change, %	-25(max)	-22
Elongation Change, %	-25(max)	-20
Volume Change, %	-5~+10	+1.8

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**(EF21) ASTM Fuel B Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)**

Hardness Change, pts, Shore A	-30~0	-15
Tensile Strength Change, %	-60(max)	-51
Elongation Change, %	-60(max)	-51
Volume Change, %	0~+40	+26.3

**(EO14) IRM 901 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)**

Hardness Change, pts, Shore A	-5~+10	+2
Tensile Strength Change, %	-25(max)	-5
Elongation Change, %	-45(max)	-25
Volume Change, %	-10~+5	-6.1

**(EO34) IRM 903 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)**

Hardness Change, pts, Shore A	-10~+5	-5
Tensile Strength Change, %	-45(max)	-8
Elongation Change, %	-45(max)	-20
Volume Change, %	0~+25	+5.2

\*American Society for Testing and Materials

Report Date: 6/31/2020

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