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## **Material Datasheet**

# **Compound #: N70-C401**

## Nitrile (Buna), Metal Detectable, FDA

Durometer:   70   Blue	Material Summary		
Blue	Material Type:	NBR	
Metal Detectable, FDA Compliant	Durometer:	70	
ASTM D2000 M2BG707 B14 EA14 EF11 EF21 EO14 EO34 Z	Color:	Blue	
Meets Specification:         ASTM D2000 M2BG707 B14 EA14 EF11 EF21 E014 E034 Z           Original Properties         Requirements         Typical Results           Hardness, Shore A (Type M), D2240-15         70±5         67           Tensile Strength, min, Mpa, D412-16         7         9.0           Elongation, min, %, D412-16         200         520           Specific Gravity (S.G), D297-21         Report         1.49           (Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))         Requirements         Typical Results           Hardness Change, points, max         ±15         +2           Tensile Change, max, %         ±30         -5           Elongation Change, max, %         -50         -28           (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))         Requirements         Typical Results           -         25 (max, %)         19           (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)         Requirements         Typical Results           Hardness Change, points, max         ±10         +3           Volume Change, %         ±15         +4           (EF11) Fuel A Resistance, 70 hrs at 23°C         Requirements         Typical Results           Hardness Change, pts.         ±10         -2           Fensile Strength Change, max, %	Special Properties:	Metal Detectable, FDA Compliant	
Original Properties         Requirements         Typical Results           Hardness, Shore A (Type M), D2240-15         70±5         67           Tensile Strength, min, Mpa, D412-16         7         9.0           Elongation, min, %, D412-16         200         520           Specific Gravity (S.G), D297-21         Report         1.49           Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))         Requirements         Typical Results           Hardness Change, points, max         ±15         ±2           Tensile Change, max, %         ±30         -5           Elongation Change, max, %         ±30         -5           Elongation Change, max, %         ±50         -28           (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))         Requirements         Typical Results           Hardness Change, max, %         ±10         ±3           Volume Change, points, max         ±10         ±3           Volume Change, %         ±15         ±4           (EF11) Fuel A Resistance, 70hrs at 23°C         Requirements         Typical Results           Hardness Change, max, %         -25         -15           Volume Change, max, %         -5 to +10         +1           (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)         Requirements	Recommended Temperature Range (Static):	-40°C (-40°F) to 100°C (212°F)	
Hardness, Shore A (Type M), D2240-15  Fensile Strength, min, Mpa, D412-16  Fensile Gravity (S.G.), D297-21  Report  Fenort  Fenort	Meets Specification:	ASTM D2000 M2BG707 B14 EA14 EF11 EF21 EO14 EO34 Z	
Fensile Strength, min, Mpa, D412-16   7   9.0	Original Properties	<u>Requirements</u>	Typical Results
Elongation, min, %, D412-16  Specific Gravity (S.G), D297-21  Report  1.49  (Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))  Hardness Change, points, max  ±15  +2  Tensile Change, max, %  ±20  Elongation Change, max, %  -50  -28  (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))  (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)  Hardness Change, points, max  ±10  +3  Volume Change, %  ±15  +4  (EF11) Fuel A Resistance, 70hrs at 23°C  Requirements  Typical Results  Hardness Change, pts.  ±10  -2  Tensile Strength Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  -50  -60  -60  -60	Hardness, Shore A (Type M), D2240-15	70±5	67
Specific Gravity (S.G), D297-21  Report  1.49  (Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))  Requirements  Typical Results  Hardness Change, points, max  ±15  ±2  Tensile Change, max, %  ±30  -5  Elongation Change, max, %  -50  -28  (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))  Requirements  Typical Results  -25 (max, %)  19  (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)  Requirements  Typical Results  Hardness Change, points, max  ±10  +3  Volume Change, %  ±15  +4  (EF11) Fuel A Resistance, 70hrs at 23°C  Requirements  Typical Results  Hardness Change, pts.  ±10  -2  Tensile Strength Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Requirements  Typical Results  Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -54	Tensile Strength, min, Mpa, D412-16	7	9.0
(Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))         Requirements         Typical Results           Hardness Change, points, max         ±15         +2           Tensile Change, max, %         ±30         -5           Elongation Change, max, %         -50         -28           (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))         Requirements         Typical Results           • 25 (max, %)         19         (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)         Requirements         Typical Results           Hardness Change, points, max         ±10         +3         +3           Volume Change, %         ±15         +4         (EF11) Fuel A Resistance, 70hrs at 23°C         Requirements         Typical Results           Hardness Change, pts.         ±10         -2         -2         -14           Elongation Change, max, %         -25         -14         -15           Volume Change, max, %         -5 to +10         +1         +1           (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)         Requirements         Typical Results           Hardness Change, pts.         -30 to 0         -10           Tensile Strength Change, max, %         -60         -46           Elongation Change, max, %         -60         -54	Elongation, min, %, D412-16	200	520
### Hardness Change, points, max #15 #2  #### Tensile Change, max, % #30	Specific Gravity (S.G), D297-21	Report	1.49
### #################################	(Basic) Heat age, 70 Hrs @ 100 °C (ASTM D573-04(19))	<u>Requirements</u>	Typical Results
Elongation Change, max, %  (B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))  Requirements  25 (max, %)  19  (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)  Hardness Change, points, max  4 10  43  Volume Change, %  4 15  44  (EF11) Fuel A Resistance, 70hrs at 23°C  Requirements  Typical Results  Hardness Change, pts.  4 10  - 2  Tensile Strength Change, max, %  - 25  - 14  Elongation Change, max, %  - 25  - 15  Volume Change, %  - 5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Requirements  Typical Results  - 30 to 0  - 10  Tensile Strength Change, max, %  - 60  - 46  Elongation Change, max, %  - 60  - 54	Hardness Change, points, max	±15	+2
Requirements   Typical Results   25 (max, %)   19	Tensile Change, max, %	±30	-5
25 (max, %)  19  (EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)  Hardness Change, points, max  210  43  Volume Change, %  415  44  (EF11) Fuel A Resistance, 70hrs at 23°C  Requirements  Typical Results  410  -2  Tensile Strength Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Requirements  Typical Results  15  -15  -15  -16  -17  -18  -19  -19  -19  -19  -19  -19  -10  -10	Elongation Change, max, %	-50	-28
EA14  Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)   Requirements   Typical Results	(B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-18))	<u>Requirements</u>	<u>Typical Results</u>
Hardness Change, points, max  +10  +3  Volume Change, %  ±15  H4  (EF11) Fuel A Resistance, 70hrs at 23°C  Hardness Change, pts.  Tensile Strength Change, max, %  Elongation Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -54	-	25 (max, %)	19
Volume Change, %  #15  #4  (EFF11) Fuel A Resistance, 70hrs at 23°C  Requirements  Typical Results  Hardness Change, pts.  #10  -2  Tensile Strength Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  #5 to +10  #1  (EFF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Hardness Change, pts.  #60  -46  Elongation Change, max, %  -60  -54	(EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16)	<u>Requirements</u>	<u>Typical Results</u>
Requirements   Typical Results	Hardness Change, points, max	±10	+3
Hardness Change, pts. ±10 -2 Tensile Strength Change, max, % -25 -14 Elongation Change, max, % -25 -15 Volume Change, % -5 to +10 +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a) Requirements Typical Results Hardness Change, pts30 to 0 -10  Tensile Strength Change, max, % -60 -46 Elongation Change, max, % -60 -54	Volume Change, %	±15	+4
Tensile Strength Change, max, %  -25  -14  Elongation Change, max, %  -25  -15  Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -46  Elongation Change, max, %  -60  -54	(EF11) Fuel A Resistance, 70hrs at 23°C	<u>Requirements</u>	Typical Results
Elongation Change, max, %  -25  -15  Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -46  Elongation Change, max, %  -60  -54	Hardness Change, pts.	±10	-2
Volume Change, %  -5 to +10  +1  (EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Requirements  Typical Results  -30 to 0  -10  Tensile Strength Change, max, %  -60  -46  Elongation Change, max, %  -60  -54	Tensile Strength Change, max, %	-25	-14
(EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)  Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -46  Elongation Change, max, %  -60  -54	Elongation Change, max, %	-25	-15
Hardness Change, pts.  -30 to 0  -10  Tensile Strength Change, max, %  -60  -46  Elongation Change, max, %  -60  -54	Volume Change, %	-5 to +10	+1
Tensile Strength Change, max, % -60 -46 Elongation Change, max, % -60 -54	(EF21) Fuel B Resistance, 70hrs at 23°C (D471-16a)	Requirements	Typical Results
Elongation Change, max, % -60 -54	Hardness Change, pts.	-30 to 0	-10
	Tensile Strength Change, max, %	-60	-46
Volume Change, % 0 to +40 +25	Elongation Change, max, %	-60	-54
	Volume Change, %	0 to +40	+25



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## **Compound #: N70-C401**

#### Nitrile (Buna), Metal Detectable, FDA

(EO14) IRM 901 Oil Resistance, 70 hrs at 100°C (D471-16a)	<u>Requirements</u>	Typical Results
Hardness Change, pts.	-5 to +10	+3
Tensile Strength Change, max, %	-25	-1
Elongation Change, max, %	-45	-35
Volume Change, %	-10 to +5	-1
(EO34) IRM903 Oil Resistance, 70 hrs at 100°C (D471-16a)	<u>Requirements</u>	Typical Results
Hardness Change, pts.	-10 to +5	-3
Tensile Strength Change, max, %	-45	-3
Elongation Change, max, %	-45	-29
Volume Change, %	0 to +25	+9
(Z) TR-10 Retraction at Lower Temperature Resistance	<u>Requirements</u>	Typical Results
51 mm die, 50% elongation, -°C	Report	-25.9

Compound Previously Known As: N70312

Report Date: 2/16/2024

Information within this report is believed to be accurate and reliable. However, Global O-Ring and Seal makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate prior to use.