

Material Datasheet

Compound #: N50-E101

Nitrile (Buna), Black, General Purpose

Material Summary

Material Type:	NBR
Durometer:	50
Color:	Black
Special Properties:	-
Recommended Temperature Range (Static):	-40°C (-40°F) to 100°C (212°F)
Cure System:	Sulfur
Meets Specification:	M2BG510 B14 EA14 EO14 EO34 EF21 F17 M5BG510 A14 B14 EO14 EO34

Original Properties	Requirements	Typical Results
Hardness, (Shore A) (ASTM D2240-15 ^{e1})	50±5	52
Tensile Strength, psi(MPa) (ASTM D412-16)	1450(10)(min)	1625(11.2)
Elongation, (%) (ASTM D412-16)	300(max)	405
(A14) Heat age, 70 Hrs @ 100 °C (ASTM D573)		
Hardness Change, pts.	+15(max)	+8
Tensile Strength Change, %	-20(max)	+2
Elongation Change, %	-40(max)	-20
(B14) Compression set, 22 Hrs @ 100 °C (ASTM D395)		
-	25%(max)	21.4
(EO14) IRM 901 Oil, 70 Hrs @ 100 °C (ASTM D471)		
Hardness Change, pts.	-5~+10	+6
Tensile Strength Change, %	-25(max)	+4
Elongation Change, %	-45(max)	-20
Volume Change, %	-10~+5	-4.6
(EO34) IRM 903 Oil, 70 Hrs @ 100 °C (ASTM D471) Grade 2		
Hardness Change, pts.	-10~+5	-8
Tensile Strength Change, %	-45(max)	-22
Elongation Change, %	-45(max)	-19
Volume Change, %	0~+25	+17.2
(EO34) IRM 903 Oil, 70 Hrs @ 100 °C (ASTM D471) Grade 5		
Hardness Change, pts.	-15~0	
Tensile Strength Change, %	-45(max)	
Elongation Change, %	-45(max)	
Volume Change, %	0~+35	

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(EA14) Water Resistance, 70 Hrs @ 100 °C (ASTM D471)		
Hardness Change, pts.	±10	-4
Volume Change, %	±15	+4.6
(EF21) Fuel B Resistance, 70 Hrs. @ 23°C (ASTM D471)		
Hardness Change, pts.	-30~0	
Tensile Strength Change, %	-60(max)	
Elongation Change, %	-60(max)	
Volume Change, %	0~+40	
(F17) Low Temperature Resistance, 3 min. @ -40°C (ASTM D2137)		
Brittle Point	non-brittle	pass

Compound Previously Known As: N50101C

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.