



MR O-RING

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Material Datasheet

Compound #: N90

Nitrile (Buna), General Purpose

Material Summary		
Material Type:	NBR	
Durometer:	90	
Color:	Black	
Recommended Temperature Range (Static):	-25°C to 121°C	
Cure System:	Sulfur	
Specification:	ASTM D2000 M6BG910 A14 B14 EO14 EO34 Z	
Original Properties	Requirements	Typical Results
Hardness, (Shore A) (ASTM D2240-15 ^{e1})	90±5	87
Tensile Strength, psi(MPa) (ASTM D412-16)	1450(10)(min)	2596(17.9)
Elongation, (%) (ASTM D412-16)	100(min)	180
Specific Gravity (ACN Content 33%)	1.30±0.05	1.31
(A14) Heat age, 70 Hrs @ 100 °C (ASTM D573-15)		
Hardness Change, pts.	±15	+4
Tensile Strength Change, %	-20(max)	+3
Elongation Change, %	-40(max)	-6
(B14) Compression set, 22 Hrs @ 100 °C (ASTM D395-16, Method B)		
-	25%(button)(max)	12
(EO14) IRM 901 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)		
Hardness Change, pts.	-5~+10	+3
Tensile Strength Change, %	-25(max)	+5
Elongation Change, %	-45(max)	-2
Volume Change, %	-10~+5	-4
(EO34) IRM 903 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)		
Hardness Change, pts.	0~ -20	-3
Tensile Strength Change, %	-45(max)	+5
Elongation Change, %	-45(max)	+2
Volume Change, %	0~+35	-4
(Z1) Retraction at Lower Temp Resistance (ASTM D1329-16)		
51mm die, 50% elongation, °c		-20

*American Society for Testing and Materials

Report Date: 8/25/2020

Information within this report is believed to be accurate and reliable. However, Mr. O-Ring 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.