

Material Datasheet

Compound #: U90-B001

Polyurethane Rubber, Clear, Oil/Fuel Resistance

Material Summary

Material Type:	Urethane (EU)
Durometer:	90
Color (Z1):	Transparent
Special Properties:	Oil/Fuel Resistance
Recommended Temperature Range (Static):	-40°C (-40°F) to 80°C (176°F)
Cure System:	Peroxide
Meets Specification:	ASTM D2000 M3BG910 A14 B14 EA14 EO14 Z1 Z2

Original Properties	Requirements	Typical Results
Hardness, (Shore A) (ASTM D2240-15 ^{e1})	90±5	88
Tensile Strength, psi (MPa) (ASTM D412-16)	1450(min)	2439(16.82)
Elongation, (%) (ASTM D412-16)	100(min)	261
Modulus at 100%,psi (MPa) (ASTM D412-16)		1010(6.97)
Density, (Mg/m ³) (CNS 5341-96, Method A)		1.23
(B14) Compression Set, 22 Hrs @ 100°C (ASTM D395-16^{e1}, Method B)		
-	50%(button)(max)	29.7
(EA14) Water Resistance, 70 Hrs @ 100°C (ASTM D471-16a)		
Hardness Change, pts.	±10	-5
Tensile Strength Change, %	-	-9
Elongation Change, %	-	+11
Volume Change, %	±15	+9.6
(EO14) IRM 901 Oil, 70 Hrs @ 100°C (ASTM D471-16a)		
Hardness Change, pts.	-7~+5	-3
Tensile Strength Change, %	-20(max)	-18
Elongation Change, %	-40(max)	-5
Volume Change, %	-5~+10	+5.5
(F19) Low-Temperature Brittleness Point Test, 3 min at -55 °C (ASTM D2137-11, Method C)		
Sample type: T-50	-	-
Coolant : Isopropyl alcohol	-	-
Brittleness temperature to nearest 1°C	no crack	pass

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(Z2) Low Temperature Retraction Test (TR Test) (ASTM D1329-16)

Testing Elongation 50%	-	-
The Equipment of measure temperature: thermocouple	-	-
Length of Sample: 51 mm	-	-
Rate of Temperature increasing: 1°C/min	-	-
Test Temperature: 26 °C	-	-
Coolant : Methanol	-	-
TR10, °C	-	-54.7

Compound Previously Known As: U90401

Report Date: 10/9/2018

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.