

# Mykin Inc

## RN00390 NITRILE COMPOUND

### GENERAL PROPERTIES

Mykin Inc's RN00390 Nitrile (BUNA-N) is a general purpose copolymer of butadiene and acrylonitrile. This compound has a relatively high acrylo content, making it exceptionally resistant to petroleum base oils and hydrocarbon fuels over a temperature range of -40F to +250F. Nitrile has good mechanical properties when compared with other elastomers and high wear resistance. Unless they are specially compounded, nitrile is not resistant to weathering, sunlight and ozone.

<b>ASTM Designation</b>	<b>ORIGINAL PROPERTIES</b>	<b>ASTM D2000 SPECIFICATION</b>
	Durometer, Shore A	90+/-5
	Tensile, psi (MPa), Minimum	1450 (10)
	Elongation, % Minimum	100
	Specific Gravity	-
	<b>HEAT AGE, 70 HRS @ 100 C</b>	
	Durometer Change, Points	+/- 15
	Tensile Strength Change, % Maximum	+/- 30
	Elongation Change, % Maximum	-50
B14	<b>COMPRESSION SET, 22 HRS @ 100 C</b> Original Deflection, % Maximum	25 (Button)
EA14	<b>WATER RESISTANCE, 70 HRS @ 100C</b> Durometer Change, Points Volume Change, %	+/-10 +/-15
EF11	<b>FUEL A RESISTANCE, 70 HRS @ 23C</b> Durometer Change, Points Tensile Change, % Maximum Elongation Change, % Maximum Volume Change, %	+/-10 -25 -25 -5/+10
EF21	<b>FUEL B RESISTANCE, 70 HRS @ 23C</b> Durometer Change, Points Tensile Change, % Maximum Elongation Change, % Maximum Volume Change, % Maximum	0/-30 -60 -60 0/+40
EO14	<b>ASTM #1 OIL, 70 HRS @ 100C</b> Durometer Change, Points Tensile Change, % Maximum Elongation Change, % Maximum Volume Change, %	-5/+15 -25 -45 -10/+5
EO34	<b>ASTM #3 OIL, 70 HRS @ 100C</b> Durometer Change, Points Tensile Change, % Maximum Elongation Change, % Maximum Volume Change, % Maximum	-10/+5 -45 -45 0/+25
F16	<b>LOW TEMPERATURE BRITTLENESS</b> ASTM D2137, Method A, 9.3.2 3 Minutes @ -35 C	Non-Brittle

### SPECIFICATIONS MET

ASTM D2000-01 Grade M7BG910 B14 EA14 EF11 EF21 EO14 EO34 F16

ASTM D2000-75 Grade 7BG915 B14 E14 E34 E51 E61 F16 L14