

Compound

77902**CARBOXYLATED - NITRILE
90 DUROMETER
BLACK COLOR****PRODUCT DATA SHEET**

Compound 77902 is a 90 durometer black colored general purpose Carboxylated Nitrile elastomer. It exhibits good physicals.

This compound will meet or exceed the specifications listed and has the following physical properties:

ASTM D2000 6 BG 915 B14 B34 EO14 EO34
7 BG 915 B14 EA14 EF11 EF21
4 BK 915 A24 B14 B34 EF11

Original Properties

Modulus @ 100% Elongation	1652 psi	11.4 MPa
Tensile Strength	3348 psi	23.1 MPa
Ultimate Elongation	220 %	
Hardness, Shore A	90 Durometer	
Specific Gravity	1.23 grams/cc	
Brittleness Temperature	-29 °F	-34 °C
Tear Resistance, Die B	260 ppi	45.5 kN/m
Tear Resistance, Die C	359 ppi	62.9 kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	18.9 %
Solid: 22 hrs @ 257°F (125°C)	22.0 %
Solid: 70 hrs @ 212°F (100°C)	37.1 %
Plied: 22 hrs @ 212°F (100°C)	24.7 %
Plied: 22 hrs @ 257°F (125°C)	35.7 %
Plied: 70 hrs @ 212°F (100°C)	49.9 %

HEAT AGED: 70 hrs @ 212°F (100°C)

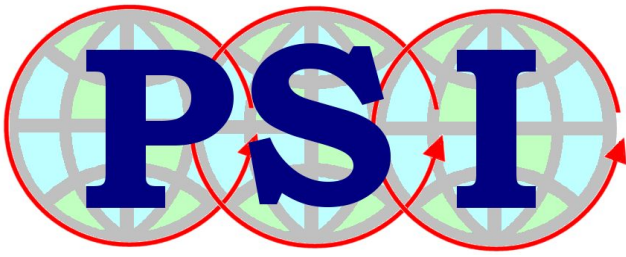
Change - Tensile Strength	+ 9.8 %
Change - Elongation	- 40.9 %
Change - Hardness, Shore A	+ 4

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 17.2 %
Change - Elongation	- 54.5 %
Change - Hardness, Shore A	+ 6

DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)

Change - Hardness, Shore A	- 5
Change - Volume	+ 12.2 %



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Change - Tensile Strength	- 6.0 %
Change - Elongation	- 9.1 %
Change - Hardness, Shore A	- 1
Change - Volume	+ 1.4 %

ASTM REFERENCE FUEL B: 70 hrs @ RT (73°F, 23°C)

Change - Tensile Strength	- 29.9 %
Change - Elongation	- 13.6 %
Change - Hardness, Shore A	- 16
Change - Volume	+ 29.1 %

ASTM REFERENCE FUEL C: 70 hrs @ RT (73°F, 23°C)

Change - Tensile Strength	- 47.1 %
Change - Elongation	- 40.9 %
Change - Hardness, Shore A	- 20
Change - Volume	+ 47.8 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 20.8 %
Change - Elongation	- 36.4 %
Change - Hardness, Shore A	+ 2
Change - Volume	- 3.2 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

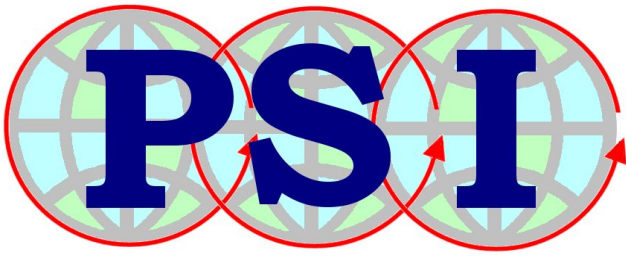
Change - Tensile Strength	+ 25.5 %
Change - Elongation	- 40.9 %
Change - Hardness, Shore A	+ 4
Change - Volume	- 4.2 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 25.6 %
Change - Elongation	- 54.5 %
Change - Hardness, Shore A	+ 6
Change - Volume	- 4.6 %

ASTM OIL #3: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 25.3 %
Change - Elongation	- 27.3 %
Change - Hardness, Shore A	0
Change - Volume	+ 6.9 %



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ASTM OIL #3: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 29.6 %
Change - Elongation	- 40.9 %
Change - Hardness, Shore A	0
Change - Volume	+ 10.3 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	- 3.9 %
Change - Elongation	- 54.5 %
Change - Hardness, Shore A	0
Change - Volume	+ 11.7 %