Compound

77801

CARBOXYLATED - NITRILE
80 DUROMETER
BLACK COLOR

PRODUCT DATA SHEET

Compound 77801 is an 80 durometer black colored general purpose Carboxylated Nitrile elastomer. It exhibits good physicals and moderate low temperature flexibility. It exhibits good resistance to aliphatic fuels.

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

ASTM D2000 2 BF 820 B14 B34 EO14 EO34

3 BG 830 B14 EO14
4 BG 830 B14 EO14
6 BG 820 A14 B14 B34 EO14 EO34 F17
7 BG 820 B14 EA14 EF11 EF21 EO14 EO34 F16

3 CH 820 A25 B14 B34
4 CH 820 A25B14EO15 F16
5 CH 820 B14 B34 F14
6 CH 820 B14 B34 F17

Original Properties

Modulus @ 100% Elongation	658	psi	4.5	MPa
Tensile Strength	3368	psi	23.2	MPa
Ultimate Elongation	390	%		
Hardness, Shore A	80	Durometer		
Specific Gravity	1.16	grams/cc		
Brittleness Temperature	-60	°F	-51	°C
Tear Resistance, Die B	234	ppi	41.0	kN/m
Tear Resistance, Die C	263	ppi	46.1	kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	8.7 %
Solid: 22 hrs @ 257°F (125°C)	12.5 %
Solid: 70 hrs @ 212°F (100°C)	31.7 %
Plied: 22 hrs @ 212°F (100°C)	17.7 %
Plied: 22 hrs @ 257°F (125°C)	21.1 %
Plied: 70 hrs @ 212°F (100°C)	42.5 %

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 10.8 %
Change - Elongation	- 28.2 %
Change - Hardness, Shore A	+ 6

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 3.9 %
Change - Elongation	- 48.7 %
Change - Hardness, Shore A	+ 10

Presure Seals, Inc.
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www.PressureSeal.com

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

Change - Hardness, Shore A	- 4
Change - Volume	+ 13.7 %

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

Change - Tensile Strength	- 11.3 %
Change - Elongation	- 15.4 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 2.5 %

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

Change - Tensile Strength	- 39.9 %
Change - Elongation	- 28.2 %
Change - Hardness, Shore A	- 15
Change - Volume	+ 31.5 %

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

Change - Tensile Strength	- 51.3 %
Change - Elongation	- 38.5 %
Change - Hardness, Shore A	- 22
Change - Volume	+ 56.5 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 20.3 %
Change - Elongation	- 33.3 %
Change - Hardness, Shore A	+ 10
Change - Volume	- 4.6 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 29.5 %
Change - Elongation	- 30.8 %
Change - Hardness, Shore A	+ 8
Change - Volume	- 4.6 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)

Change - Tensile Strength	+ 31.9 %
Change - Elongation	- 41.0 %
Change - Hardness, Shore A	+ 7
Change - Volume	- 5.0 %

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ASTM OIL #3: 70 hrs @ 212°F (100°C)	
Change - Tensile Strength	+ 21.8 %
Change - Elongation	- 23.1 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 10.3 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	+ 13.2 %
Change - Elongation	- 30.8 %
Change - Hardness, Shore A	+ 3
Change - Volume	+ 13.0 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)	
Change - Tensile Strength	+ 13.0 %
Change - Elongation	- 43.6 %
Change - Hardness, Shore A	0
Change - Volume	+ 14.0 %

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