Compound

77701

CARBOXYLATED NITRILE
BLACK COLOR - 70 DURO
ABRASION RESISTANT

PRODUCT DATA SHEET

Compound 77701 is a 70 durometer black colored Carboxylated Nitrile elastomer, it is formulated for good abrasion resistance. It exhibits good physicals and has good low temperature flexibility.

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

ASTM D2000 2 BF 725 B14 B34 EO34 F19

2 BG 725 B14 B34 EO34 EA14 EF21 F17
3 BG 725 B14 F19
4 BG 720 B14 EO34 F19
5 BG 720 A14 B14 B34 F19

2 CH 725 A25 B14 B34 F17
3 CH 725 A25 B14 B34
5 CH 720 B14 B34 F14
6 CH 720 B14 B34 F17

Original Properties

Modulus @ 100% Elongation	405	psi	2.8	MPa
Tensile Strength	2821	psi	19.4	MPa
Ultimate Elongation	380	%		
Hardness, Shore A	72	Durometer		
Specific Gravity	1.14	grams/cc		
Brittleness Temperature	-71	°F	-57	°C
Tear Resistance, Die B	160	ppi	28.0	kN/m
Tear Resistance, Die C	214	ppi	37.5	kN/m

Compression Set

Solid: 22 hrs @ 212°F (100°C)	12.3	%
Solid: 70 hrs @ 212°F (100°C)	19.4	%
Plied: 22 hrs @ 212°F (100°C)	20.6	%
Plied: 70 hrs @ 212°F (100°C)	31.7	%

HEAT AGED: 70 hrs @ 212°F (100°C)

Change - Tensile Strength	+ 16.3 %
Change - Elongation	- 21.1 %
Change - Hardness, Shore A	+ 9

HEAT AGED: 70 hrs @ 257°F (125°C)

Change - Tensile Strength	+ 13.3 %
Change - Elongation	- 34.2 %
Change - Hardness, Shore A	+ 13

Presure Seals, Inc.
310 Nutmeg Road South
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www.PressureSeal.com

DISTILLED WATER AGED: 70 hrs @ 212°F (100°C)	
Change - Hardness, Shore A	- 5
Change - Volume	+ 8.3 %

ASTM REFERENCE FUEL A: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 27.4 %
Change - Elongation	- 15.8 %
Change - Hardness, Shore A	- 2
Change - Volume	+ 1.8 %

ASTM REFERENCE FUEL B: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 48.4 %
Change - Elongation	- 31.6 %
Change - Hardness, Shore A	- 13
Change - Volume	+ 21.1 %

ASTM REFERENCE FUEL C: 70 hrs @ RT (73°F, 23°C)	
Change - Tensile Strength	- 63.3 %
Change - Elongation	- 42.1 %
Change - Hardness, Shore A	- 18
Change - Volume	+ 42.5 %

ASTM OIL #1: 70 hrs @ 212°F (100°C)	
Change - Tensile Strength	+ 8.9 %
Change - Elongation	- 13.2 %
Change - Hardness, Shore A	+ 8
Change - Volume	- 11.0 %

ASTM OIL #1: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	+ 31.9 %
Change - Elongation	+ 31.6 %
Change - Hardness, Shore A	+ 12
Change - Volume	- 12.8 %

ASTM OIL #1: 70 hrs @ 302°F (150°C)	
Change - Tensile Strength	+ 23.2 %
Change - Elongation	- 47.4 %
Change - Hardness, Shore A	+ 13
Change - Volume	+ 13.3 %

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ASTM OIL #3: 70 hrs @ 212°F (100°C)	
Change - Tensile Strength	+ 5.0 %
Change - Elongation	- 13.2 %
Change - Hardness, Shore A	+ 4
Change - Volume	- 13.2 %

ASTM OIL #3: 70 hrs @ 257°F (125°C)	
Change - Tensile Strength	+ 23.6 %
Change - Elongation	- 26.3 %
Change - Hardness, Shore A	+ 5
Change - Volume	+ 2.9 %

ASTM OIL #3: 70 hrs @ 302°F (150°C)	
Change - Tensile Strength	+ 19.3 %
Change - Elongation	- 42.1 %
Change - Hardness, Shore A	+ 8
Change - Volume	+ 3.3 %

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