



Compound

**55888****HIGHLY SATURATED-  
NITRILE-BLACK-80 DURO  
ELECTRICALLY CONDUCT.****PRODUCT DATA SHEET**

Compound 55888 is an 80 durometer black Highly Saturated Nitrile elastomer, it is formulated to be electrically conductive. It exhibits good resistance to petroleum based oils and sour crude. It displays lower brittle point temperature than Buna N with the same volume swell in gasoline.

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

ASTM D2000 2 BF 820 B14 B34 EO14 EO34 F19  
3 BG 820 B14 EO14 F19  
3 BG 820 A14 B14 EO14 F19  
4 BG 820 A14 B14 EO14 F19  
6 BG 820 A14 B14 B34 EO14 EO34 F17  
7 BG 820 B14 EO14 EO34 Ef11 Ef21 EA14 F16  
  
3 CH 820 A25 B14 B34 EO16 EO36  
4 CH 820 A25 B14 EO15 EO35 F16  
5 CH 820 A25 B14 B34 F14  
6 CH 820 A25 B14 B34 F17

**Original Properties**

Modulus @ 100% Elongation	800 psi	5.5 MPa
Tensile Strength	2963 psi	20.4 MPa
Ultimate Elongation	380 %	
Hardness, Shore A	81 Durometer	
Specific Gravity	1.16 grams/cc	
Brittleness Temperature	-67 °F	-55 °C
Tear Resistance, Die B	256 ppi	44.8 kN/m

**Compression Set**

Solid: 22 hrs @ 212°F (100°C)	21.4 %
Solid: 70 hrs @ 212°F (100°C)	24.4 %
Plied: 22 hrs @ 212°F (100°C)	19.3 %
Plied: 70 hrs @ 212°F (100°C)	30.3 %

**HEAT AGED: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	+ 14.5 %
Change - Elongation	- 5.3 %
Change - Hardness, Shore A	+ 4

**HEAT AGED: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 9.9 %
Change - Elongation	- 18.4 %
Change - Hardness, Shore A	+ 5



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Change - Tensile Strength	+ 2.6 %
Change - Elongation	- 39.5 %
Change - Hardness, Shore A	+ 7

**HEAT AGED: 70 hrs @ 257°F (125°C) Test Tube Method**

Change - Tensile Strength	+ 9.9 %
Change - Elongation	- 18.4 %
Change - Hardness, Shore A	+ 5

**HEAT AGED: 70 hrs @ 302°F (150°C) Test Tube Method**

Change - Tensile Strength	+ 2.6 %
Change - Elongation	- 39.5 %
Change - Hardness, Shore A	+ 7

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

Change - Hardness, Shore A	+ 3
Change - Volume	+ 2.0 %

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

Change - Tensile Strength	- 9.2 %
Change - Elongation	- 10.5 %
Change - Hardness, Shore A	0
Change - Volume	+ 1.6 %

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

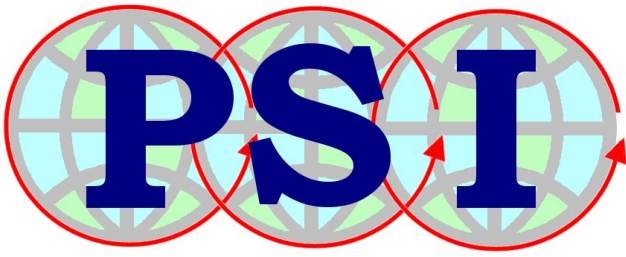
Change - Tensile Strength	- 51.1 %
Change - Elongation	- 47.4 %
Change - Hardness, Shore A	- 17
Change - Volume	+ 33.2 %

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

Change - Tensile Strength	- 59.5 %
Change - Elongation	- 57.9 %
Change - Hardness, Shore A	- 21
Change - Volume	+ 56.5 %

**ASTM OIL #1: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	+ 2.1 %
Change - Elongation	- 5.3 %
Change - Hardness, Shore A	+ 4
Change - Volume	- 2.8 %



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**ASTM OIL #1: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	+ 0.4 %
Change - Elongation	- 7.9 %
Change - Hardness, Shore A	0
Change - Volume	- 2.4 %

**ASTM OIL #1: 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	+ 10.6 %
Change - Elongation	- 10.5 %
Change - Hardness, Shore A	+ 3
Change - Volume	- 2.6 %

**ASTM OIL #3: 70 hrs @ 212°F (100°C)**

Change - Tensile Strength	- 5.7 %
Change - Elongation	- 5.3 %
Change - Hardness, Shore A	- 5
Change - Volume	+ 13.0 %

**ASTM OIL #3: 70 hrs @ 257°F (125°C)**

Change - Tensile Strength	- 10.6 %
Change - Elongation	- 10.5 %
Change - Hardness, Shore A	- 9
Change - Volume	+ 16.7 %

**ASTM OIL #3: 70 hrs @ 302°F (150°C)**

Change - Tensile Strength	- 8.3 %
Change - Elongation	- 15.8 %
Change - Hardness, Shore A	- 6
Change - Volume	+ 17.6 %