



HNBR 209 Sealing Solutions

Compound No./Material Name: HNBR 209	Rubber Classification: HNBR	Service Temperature Range: -30°F to 300°F (-34°C to 149°C)	Color: Black
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Description		Typical
Original Properties (ASTM Standard)		
Specific Gravity (D297)		1.26
Hardness, Shore A, Points (D2240)		90
Tensile Strength, psi [MPa] (D412)		4,100 [28.3]
Elongation, % (D412)		97
Modulus @ 50% Elongation, psi [MPa] (D412)		2,000 [13.8]
Air Aging (ASTM Standard)		
70 Hours @ 212°F (100°C)	Hardness Change, Points (D573)	0
	Tensile Change, % (D573)	0
	Elongation Change, % (D573)	-5
70 Hours @ 257°F (125°C)	Hardness Change, Points (D573)	+1
	Tensile Change, % (D573)	0
	Elongation Change, % (D573)	-5
70 Hours @ 300°F (149°C)	Hardness Change, Points (D573)	+1
	Tensile Change, % (D573)	+0.2
	Elongation Change, % (D573)	-5
Fluid Aging (ASTM Standard)		
70 Hours @ 212°F (100°C) In ASTM Oil #1	Hardness Change, Points (D471)	+1
	Tensile Change, % (D471)	-4
	Elongation Change, % (D471)	-10
	Volume Change, % (D471)	+1
70 Hours @ 257°F (125°C) In ASTM Oil #1	Hardness Change, Points (D471)	0
	Tensile Change, % (D471)	-4
	Elongation Change, % (D471)	-10
	Volume Change, % (D471)	+1
70 Hours @ 300°F (149°C) In ASTM Oil #1	Hardness Change, Points (D471)	+1
	Tensile Change, % (D471)	-4
	Elongation Change, % (D471)	-10
	Volume Change, % (D471)	+0.5

Contact Us

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Description		Typical
Fluid Aging (continued) (ASTM Standard)		
70 Hours @ 212°F (100°C) In ASTM Oil #3	Hardness Change, Points (D471)	-7
	Tensile Change, % (D471)	-1.3
	Elongation Change, % (D471)	+3.4
	Volume Change, % (D471)	+14.7
70 Hours @ 257°F (125°C) In ASTM Oil #3	Hardness Change, Points (D471)	-7
	Tensile Change, % (D471)	-1
	Elongation Change, % (D471)	0
	Volume Change, % (D471)	+12
70 Hours @ 300°F (149°C) In ASTM Oil #3	Hardness Change, Points (D471)	-7
	Tensile Change, % (D471)	-1.3
	Elongation Change, % (D471)	+3.4
	Volume Change, % (D471)	+14.7
70 Hours @ 300°F (149°C) In Texaco Diesel Oil #2	Hardness Change, Points (D471)	-12
	Tensile Change, % (D471)	-20
	Elongation Change, % (D471)	-1
	Volume Change, % (D471)	+20
70 Hours @ Room Temperature In Reference Fuel A	Hardness Change, Points (D471)	0
	Tensile Change, % (D471)	-5.8
	Elongation Change, % (D471)	-2.4
	Volume Change, % (D471)	+0.9
70 Hours @ Room Temperature In Reference Fuel B	Hardness Change, Points (D471)	-9
	Tensile Change, % (D471)	-42
	Elongation Change, % (D471)	-25
	Volume Change, % (D471)	+23
70 Hours @ 212°F (100°C) In Water	Hardness Change, Points (D471)	0
	Volume Change, % (D471)	+2
Compression Set @ 25% Deflection (ASTM Standard)		
20 Hours @ 212°F (100°C) In Air, % of Original Deflection, % (D395)		20
70 Hours @ 212°F (100°C), In Air, % of Original Deflection, % (D395)		19
70 Hours @ 300°F (149°C), In Air, % of Original Deflection, % (D395)		28

Note
Unless otherwise noted, all tests performed on ASTM slabs and buttons.

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