

COMPOUND: 4510

POLYMER: Carboxylated Nitrile Rubber (NBR)

DESCRIPTION: 83a Black – Aerospace Grade

SPECIFICATION: ASTM D2000-M1BG814-Z1-Z2-Z3-Z4-Z5-Z6

Property		ASTM Method	Specification Limits	Typical Value	Units
Physical Properties (Dumbbell)	Hardness ^(Z5)	D-2240	78 – 88	87	Shore A
	Specific Gravity	D-792	--	1.254	
	Tensile	D-412	14 (2031) Min.	17.9 (2596)	MPa (psi)
	Elongation	D-412	125 Min.	318	%
Low Temperature ^(Z6)	TR-10	D-1329	-13 Max.	-19.2	°C
	TR-70	D-1329	7 Max.	-1.7	°C
Compression Set	22 Hrs @ 100°C	D-395B	50 Max.	23.6	%
Heat Aging, 70 Hrs @100°C	Hardness Change	D-573	±15	+1	Pts. Shore A
	Tensile Change		±30	+7.6	%
	Elongation Change		-50 Max	-27.9	%
Immersion ^(Z1) 70 Hrs @ 100°C IRM 901 Oil	Volume Change	D-471	-15, +5	-6.4	%
Immersion ^(Z2) 70 Hrs @ 100°C IRM 903 Oil	Hardness Change	D-471	-5, +10	+2	Pts. Shore A
	Volume Change		-5, +20	+2.4	%
Immersion ^(Z3) 70 Hrs @ 75°C MIL-PRF-7870	Hardness Change	D-471	TBD	-13	Pts. Shore A
	Volume Change		TBD	+18.3	%
	Tensile Change		TBD	+0	%
	Elongation Change		TBD	-13.3	%
Immersion ^(Z4) 70 Hrs @ 75°C MIL-PRF-23827 (Aeroshell Grease 33)	Hardness Change	D-471	-20 Max	+1	Pts. Shore A
	Volume Change		0 to 25 Max	+2.0	%
	Tensile Change		-20 Max	+2.3	%
	Elongation Change		-30 Max	-24.5	%

Rev. None – 2024-06 BF

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