

LABORATORY REPORT

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E-07-D

Date: May/16/2019

MATERIAL : BUTADIENE ACRYLONITRILE COPOLYMER
 COMPOUND: N7018AA
 SPEC.: ASTM D2000 M2BG710 A14 B14 EA14 EF11 EF21 EO14 Z1
 Z1=Service Temperature -40°C ~ +100°C
 COLOR: BLACK

<u>Original Physical Properties</u>	<u>Requirements</u>	<u>Results</u>
Hardness,(shore A)(ASTM D2240-15 ¹)	70±5	71
Tensile Strength,psi(MPa)(ASTM D412-16)	1450(10)(min)	2914(20.10)
Elongation,(%)(ASTM D412-16)	250(min)	332
Modulus at 100%,psi(MPa)(ASTM D412-16)		570(3.93)
Density,(Mg/m ³)(CNS 5341-96,Method A)		1.24
<u>A14 Heat age, 70 Hrs @ 100 °C (ASTM D573-04)</u>		
Hardness Change, pts.	±15	+5
Tensile Strength Change, %	±30	-4
Elongation Change, %	-50(max)	-32
Weight Change, %		-1.1
<u>B14 Compression set, 22 Hrs @ 100 °C (ASTM D395-18,Method B)</u>		
	25%(button)(max)	11.5
<u>EA14 Water resistance, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
Hardness Change, pts.	±10	-3
Tensile Strength Change, %		-5
Elongation Change, %		-8
Volume Change, %	±15	-10
<u>EF11 ASTM Fuel A Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)</u>		
Hardness Change, pts.	±10	-5
Tensile Strength Change, %	-25(max)	-3
Elongation Change, %	-25(max)	-5
Volume Change, %	-5~+10	+4
<u>EF21 ASTM Fuel B Resistance, 70 Hrs @ 23 °C (ASTM D471-16a)</u>		
Hardness Change, pts.	-30~0	-21
Tensile Strength Change, %	-60(max)	-56
Elongation Change, %	-60(max)	-42
Volume Change, %	0~+40	+36.5
<u>EO14 IRM 901 Oil, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		

Hardness Change, pts.	-5~+10	-2
Tensile Strength Change, %	-25(max)	-6
Elongation Change, %	-45(max)	-20
Volume Change, %	-10~+5	+2.1

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