

LABORATORY REPORT

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E-07-D

Date:Jan/02/2019

MATERIAL : ETHYLENE PROPYLENE
 COMPOUND : E7051AA
 SPEC. : ASTM D2000 M5CA710 A25 B35 C32 EA14 F17 G21 Z1 Z2
 Z1= meet to FDA 21 CFR 177.2600
 Z2=Service Temperature -55°C ~ +125°C
 COLOR : BLACK

<u>Original Physical Properties</u>	<u>Requirements</u>	<u>Results</u>
Hardness, (Shore A) (ASTM D2240-15 ^{e1})	70±5	72
Tensile Strength, psi (MPa) (ASTM D412-16)	1450(10)(min)	1529(10.54)
Elongation, (%) (ASTM D412-16)	200(min)	285
Modulus at 100%, psi (MPa) (ASTM D412-16)		685(4.72)
Density, (Mg/m ³) (CNS 5341-96, Method A)		1.27
<u>G21 Tear Resistance, (ASTM D624-00)</u>	26kN/m(die C)(min)	27.12
<u>A25 Heat Age, 70 Hrs @ 125 °C (ASTM D865-11)</u>		
Hardness Change, pts.	+10(max)	+1
Tensile Strength Change, %	-20(max)	+1
Elongation Change, %	-40(max)	-15
Weight Change, %		+0.2
<u>B35 Compression Set, 22 Hrs @ 125 °C (ASTM D395-18, Method B)</u>	50%(plied)(max)	47.2
<u>EA14 Water Resistance, 70 Hrs @ 100 °C (ASTM D471-16a)</u>		
Hardness Change, pts.		0
Tensile Strength Change, %		-4
Elongation Change, %		-9
Volume Change, %	±5	+1.0
<u>C32 Ozone 50 pphm, 70 Hrs @ 40 °C (ASTM D1171-18)</u>	no-cracks	pass
<u>F17 Low-Temperature Brittleness Point Test, 3 minute @ -40 °C (ASTM D2137-11, Method C)</u>		
Sample type: T-50, Coolant : Isopropyl alcohol, Low Temperature Property,	no-cracks	pass

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