

LABORATORY REPORT

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E-07-D

MATERIAL : BUTADIENE ACRYLONITRILE COPOLYMER

COMPOUND : N7041AA

DATE : Jan/08/2020

SPEC. : ASTM D2000 M2BG714 A14 B14 EA14 EF11 EF21 EO14 EO34 Z1 Z2 Z3

Z1=NSF 61 CERTIFICATION

Z2=meet to FDA21 CFR 177.2600

Z3=Service Temperature -40°C ~ +100°C

COLOR : BLACK

Original Physical Properties

Requirements

Results

Hardness, (Shore A) (ASTM D2240-15 ^{e1})	70±5	72
Tensile Strength, psi(MPa) (ASTM D412-16)	2031(min)	2565(17.69)
Elongation, (%) (ASTM D412-16)	250(min)	264
Modulus at 100%, psi(MPa) (ASTM D412-16)		879(6.06)
Density, (Mg/m ³) (CNS 5341-96, Method A)		1.26

A14 Heat Age, 70 Hrs @ 100°C (ASTM D573-04)

Hardness Change, pts.	±15	+5
Tensile Strength Change, %	±30	+10
Elongation Change, %	-50(max)	-18
Weight Change, %		-0.8

B14 Compression Set, 22 Hrs @ 100°C (ASTM D395-18, Method B)

25%(button)(max) 9.6

EA14 Water Resistance, 70 Hrs@ 100°C (ASTM D471-16a)

Hardness Change, pts.	±10	-4
Tensile Strength Change, %		+5
Elongation Change, %		-15
Volume Change, %	±15	+5.2

EF11 ASTM Fuel A Resistance, 70 Hrs @ 23°C (ASTM D471-16a)

Hardness Change, pts.	±10	-3
Tensile Strength Change, %	-25(max)	-10
Elongation Change, %	-25(max)	-12
Volume Change, %	-5~+10	+2.3

EF21 ASTM Fuel B Resistance, 70 Hrs @ 23°C (ASTM D471-16a)

Hardness Change, pts.	-30~0	-20
Tensile Strength Change, %	-60(max)	-25
Elongation Change, %	-60(max)	-31
Volume Change, %	0~+40	+22.1

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EO14 IRM 901 Oil, 70 Hrs @ 100°C (ASTM D471-16a)

Hardness Change, pts.

Requirements

-5~+10

Results

+8

Tensile Strength Change, %

-25(max)

+7

Elongation Change, %

-45(max)

-20

Volume Change, %

-10~+5

-8.8

EO34 IRM 903 Oil, 70 Hrs @ 100°C (ASTM D471-16a)

Hardness Change, pts.

-10~+5

-4

Tensile Strength Change, %

-45(max)

+12

Elongation Change, %

-45(max)

-20

Volume Change, %

0~+25

+4.2

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