ESP International
5920 Dry Creek Ln NE
Cedar Rapids, IA 52402
www.espint.com

V8028

Revision: C

MATERIAL:	FKM
COMPOUND:	V8028
SPECIFICATION:	ASTM D 2000 M2HK710 A1-10 B37 B38 EF31 EO78 F15 Z1 Z2
COLOR:	Black
CERTIFICATIONS:	FDA CFR 21 177.2600, 3A Sanitary Standard 18 Class III, EC1935/2004, NSF 61
ADDITIONAL NOTES:	-

Spec	Original Physical and Mechanical Properties	Requirements	Result
Z1	Hardness, Shore A Pts, ASTM D 2240	75±5	75
	Tensile Strength, MPa (psi) min., ASTM D 412	10.0 (1450)	15.2 (2197)
	Ultimate Elongation, % min., ASTM D412	175	206
	Modulus @ 100%, MPa (psi), ASTM D 412	-	8.8 (1279)
	Density, (Mg/m^3)	-	1.94

A1-10	Heat Resistance (ASTM D 573) 70 h @ 250°C	Requirements	Result
	Change in Hardness, Pts max.	10	0
	Change in Tensile, % max.	-25	5
	Change in Elongation, % max.	-25	-9
	Change in Weight, % max.	-	-2.2

B37	Compression Set (ASTM D 395, Method B) 22 h @ 175°C	Requirements	Result
	% of Original Deflection, max.	50	7.0

B38	Compression Set (ASTM D 395, Method B) 22 h @ 200°C	Requirements	Result
	% of Original Deflection, max.	50	8.7

EF31	Fluid Resistance (ASTM D 471) 70 h in ASTM Fuel C @ 23°C	Requirements	Result
	Change in Hardness, Pts	±5	-2
	Change in Tensile, % max.	-25	-16
	Change in Elongation, % max.	-20	-3
	Change in Volume, %	0~+10	3

Note: the values listed above are only valid for material samples prepared for laboratory test purposes as documented in the standards listed above

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EO78	**Fluid Resistance (ASTM D 471) 70 h in Liquid No. 101 @ 200°C**	**Requirements**	**Result**
	Change in Hardness, Pts	-15~+5	-6
	Change in Tensile, % max.	-40	-7
	Change in Elongation, % max.	-20	-7
	Change in Volume, %	0~+15	9.9
Z2 (EO88)	**Fluid Resistance (ASTM D 471) 70 h in Mobile Jet Oil II 7700 @ 200°C**	**Requirements**	**Result**
	Change in Hardness, Pts	-15~+5	-8
	Change in Tensile, % max.	-40	-10
	Change in Elongation, % max.	-20	-8
	Change in Volume, % max.	25	19.3
F15	**Low Temperature Brittleness Point Test (ASTM D 2137, Method C) 3 min. @ -25°C**	**Requirements**	**Result**
	Sample type: T-50, Coolant : Isopropyl alcohol, Low Temperature Property,	Pass	Pass
C2.1.1	**Low Fat Tolerance Absorption (ASTM D 471) 22 h @ 70°C**	**Requirements**	**Result**
	Change in Hardness, Pts	±20	-2
	Change in Tensile, %	-	-7
	Change in Elongation, %	-	49
	Change in Weight, %	±25	0.3
	Change in Volume, %	±25	0.2
	Change in Visual Appearance	-	Pass
C2.2.1	**Milk Fat Absorption (ASTM D 471) 22 h @ 70°C**	**Requirements**	**Result**
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	-7
	Change in Elongation, %	-	3
	Change in Weight, %	±25	0.4
	Change in Volume, %	±25	0.2
	Change in Visual Appearance	-	Pass

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C2.2.2	Distilled Water Absorption (ASTM D 471) 22 h @ 70°C	Requirements	Result
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	-2
	Change in Elongation, %	-	8
	Change in Weight, %	±15	0.4
	Change in Volume, %	±15	-0.2
	Change in Visual Appearance	-	Pass

C2.2.3	Air Aging Stability (ASTM D 573) 166 h @ 100°C	Requirements	Result
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	-4
	Change in Elongation, %	-	-14
	Change in Weight, %	-	0
	Change in Volume, %	-	-
	Change in Visual Appearance	-	Pass

D4.6	Fluid Resistance (ASTM D471) 22 h in Nitric Acid @ 82°C	Requirements	Result
	Change in Hardness, Pts	-	-2
	Change in Tensile, %	-	5
	Change in Elongation, %	-	11
	Change in Weight, %	-	1.3
	Change in Volume, %	-	2
	Change in Visual Appearance	-	Pass

D4.7	Fluid Resistance (ASTM D471) 22 h in Phosphoric Acid @ 82°C	Requirements	Result
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	-4
	Change in Elongation, %	-	6
	Change in Weight, %	±15	0.5
	Change in Volume, %	±15	0.3
	Change in Visual Appearance	-	Pass

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D4.8	Fluid Resistance (ASTM D471) 22 h in Alkaline Cleaner @ 82°C	Requirements	Result
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	-9
	Change in Elongation, %	-	4
	Change in Weight, %	±15	0.5
	Change in Volume, %	±15	-0.3
	Change in Visual Appearance	-	Pass

D4.9	Fluid Resistance (ASTM D 471) 22 h in Chlorine Sanitizer @ 21°C	Requirements	Result
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	3
	Change in Elongation, %	-	2
	Change in Weight, %	±15	0.1
	Change in Volume, %	±15	-0.2
	Change in Visual Appearance	-	Pass

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