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

S8000

Revision: A

CONTACT US

MATERIAL:	VMQ
COMPOUND:	S8000
SPECIFICATION:	ASTM D2000 M2GE705 A19 B37 EA14 EO16 EO36 F19 G11 Z1
COLOR:	Rust
CERTIFICATIONS:	FDA CFR 21 177.2600, 3A Sanitary Standard Class IV
ADDITIONAL NOTES:	-

Spec	Original Physical and Mechanical Properties	Requirements	Result
	Hardness, Shore A Pts, ASTM D 2240	70±5	73
	Tensile Strength, MPa (psi) min., ASTM D 412	5.0 (725)	5.6 (805)
	Ultimate Elongation, % min., ASTM D412	150	238
	Modulus @ 100%, MPa (psi), ASTM D 412	-	3.7 (531)
	Density, (Mg/m^3)	-	1.31

Spec	Heat Resistance (ASTM D 573) 70 h @ 225°C	Requirements	Result
A19	Change in Hardness, Pts	10	0
	Change in Tensile, %	-25	-6
	Change in Elongation, % max.	-30	-29
	Change in Weight, % max.	-	-0.4

Spec	Compression Set (ASTM D 395, Method B) 22 h @ 175°C	Requirements	Result
B37	% of Original Deflection, max.	25	16.3

Spec	Water resistance (ASTM D471) 70 h @ 100°C	Requirements	Result
EA14	Change in Hardness, Pts	±5	-1
	Change in Tensile, %	-	-7
	Change in Elongation, %	-	-4
	Change in Volume, %	±5	0.5

Spec	Fluid Resistance (ASTM D 471) 70 h in IRM901 Oil @ 150°C	Requirements	Result
EO16	Change in Hardness, Pts	-10~0	-8
	Change in Tensile, % max.	-30	12

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	Change in Elongation, % max.	-30	-5
	Change in Volume, %	0~+15	4.6

EO36	Fluid Resistance (ASTM D 471) 70 h in IRM903 Oil @ 150°C	Requirements	Result
	Change in Hardness, Pts	-	-21
	Change in Tensile, % max.	-	-6
	Change in Elongation, % max.	-	-14
	Change in Volume, % max.	60	35.2

F19	Low- Temperature Brittleness (ASTM D2137, Method C) 3 minutes @ -55°C	Requirements	Result
	Nonbrittle	Pass	Pass

G11	Tear Resistance, (ASTM D624 Die B)	Requirements	Results
	Tear Strength, kN/m, min.	5	13.7

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, %	-	-3
	Change in Elongation, %	-	13
	Change in Weight, %	±60	0.6
	Change in Volume, %	±75	0.3
	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	-3
	Change in Tensile, %	-	0
	Change in Elongation, %	-	21
	Change in Weight, %	±40	1.6
	Change in Volume, %	±60	1.1
	Change in Visual Appearance	-	Pass

C2.2.2	Distilled Water Absorption (ASTM D 471) 22 h @ 70°C	Requirements	Result
	Change in Hardness, Pts	±10	-2

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Change in Tensile, %	-	-3
Change in Elongation, %	-	10
Change in Weight, %	±20	0.7
Change in Volume, %	±25	0.7
Change in Visual Appearance	-	Pass

C2.2.3 **Air Aging Stability (ASTM D 573) 166 h @ 70°C**

	Requirements	Result
Change in Hardness, Pts	±10	0
Change in Tensile, %	-	5
Change in Elongation, %	-	8
Change in Weight, %	-	0.4
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, %	-	-3
Change in Elongation, %	-	11
Change in Weight, %	±20	0.9
Change in Volume, %	±25	0.2
Change in Visual Appearance	-	Pass

D4.8 **Fluid Resistance (ASTM D471) 22 h in Alkaline Cleaner @ 82°C**

	Requirements	Result
Change in Hardness, Pts	±10	-3
Change in Tensile, %	-	-6
Change in Elongation, %	-	7
Change in Weight, %	±20	0.8
Change in Volume, %	±25	0.6
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	-2
Change in Tensile, %	-	-3
Change in Elongation, %	-	9

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Change in Weight, %	±20	0.5
Change in Volume, %	±25	0.3
Change in Visual Appearance	-	Pass

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