



ESP International  
5920 Dry Creek Ln NE  
Cedar Rapids, IA 52402  
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# E8061

Revision: A

**CONTACT US**

**MATERIAL:** EPDM  
**COMPOUND:** E8061  
**SPECIFICATION:** ASTM D 2000 M4CA714 A25 B35 EA14 F17 G21 Z1 Z2 Z3  
**COLOR:** Black  
**CERTIFICATIONS:** FDA CFR 21 177.2600, 3A Sanitary Standard 18 Class III  
**ADDITIONAL NOTES:** -

<b>Spec</b>	<b><u>Original Physical and Mechanical Properties</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
<b>Z3</b>	Hardness, Shore A Pts, ASTM D 2240	70±5	73
	Tensile Strength, MPa (psi) min., ASTM D 412	14.0 (2031)	15.3 (2215)
	Ultimate Elongation, % min., ASTM D 412	150	180
	Modulus @ 100%, MPa (psi), ASTM D 412	-	5.3 (771)
	Density, Mg/m <sup>3</sup>	-	1.13
<b>A25</b>	<b><u>Heat Resistance (ASTM D 865) 70 h @ 125°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts max.	10	1
	Change in Tensile, % max.	-20	-7
	Change in Elongation, % max.	-40	-5
Change in Weight, %	-	0.1	
<b>Z1</b>	<b><u>Heat Resistance (ASTM D 573) 70 h @ 125°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±15	2
	Change in Tensile, %	±30	-6
	Change in Elongation, % max.	-50	-9
Change in Weight, %	-	-0.3	
<b>B35</b>	<b><u>Compression Set (ASTM D 395, Method B) 22 h @ 125°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	% of Original Deflection, max.	70	14.1
<b>Z2</b>	<b><u>Compression Set (ASTM D 395, Method B) 22 h @ 100°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	% of Original Deflection, max.	60	8.6

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<b>EA14</b>	<b><u>Water Resistance (ASTM D 471) 70 h @ 100°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	-	-1
	Change in Tensile, %	-	-6
	Change in Elongation, %	-	-1
	Change in Volume, %	±5	1.2
<b>F17</b>	<b><u>Low Temperature Resistance (ASTM D 2137, Method C) 3 m @ -40°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Nonbrittle	Pass	Pass
<b>G21</b>	<b><u>Tear Strength (ASTM D 624, Die C)</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Tear Strength, kN/m, min.	26	30.2
<b>C2.1.1</b>	<b><u>Low Fat Tolerance Absorption (ASTM D 471) 22 h @ 70°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±20	-1
	Change in Tensile, %	-	12
	Change in Elongation, %	-	3
	Change in Weight, %	±25	0.5
	Change in Volume, %	±25	0.2
	Change in Visual Appearance	-	Pass
<b>C2.2.1</b>	<b><u>Milk Fat Absorption (ASTM D 471) 22 h @ 70°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	-10
	Change in Tensile, %	-	-31
	Change in Elongation, %	-	-14
	Change in Weight, %	±25	8.0
	Change in Volume, %	±25	9.6
	Change in Visual Appearance	-	Pass

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<b>C2.2.2</b>	<b><u>Distilled Water Absorption (ASTM D 471) 22 h @ 70°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	10
	Change in Elongation, %	-	3
	Change in Weight, %	±15	0.5
	Change in Volume, %	±15	0.2
	Change in Visual Appearance	-	Pass
<b>C2.2.3</b>	<b><u>Air Aging Stability (ASTM D 573) 166 h @ 70°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	0
	Change in Tensile, %	-	4
	Change in Elongation, %	-	-3
	Change in Weight, %	-	0
	Change in Visual Appearance	-	Pass
<b>D4.7</b>	<b><u>Fluid Resistance (ASTM D 471) 22 h in Phosphoric Acid @ 82°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	-1
	Change in Tensile, %	-	9
	Change in Elongation, %	-	2
	Change in Weight, %	±15	0.5
	Change in Volume, %	±15	0.3
	Change in Visual Appearance	-	Pass
<b>D4.8</b>	<b><u>Fluid Resistance (ASTM D 471) 22 h in Alkaline Cleaner @ 82°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	-2
	Change in Tensile, %	-	8
	Change in Elongation, %	-	-2
	Change in Weight, %	±15	0.5
	Change in Volume, %	±15	0.3
	Change in Visual Appearance	-	Pass

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<b>D4.9</b>	<b><u>Fluid Resistance (ASTM D 471) 22 h in Chlorine Sanitizer @ 21°C</u></b>	<b><u>Requirements</u></b>	<b><u>Result</u></b>
	Change in Hardness, Pts	±10	0
	Change in Tensile, %	-	8
	Change in Elongation, %	-	4
	Change in Weight, %	±15	0.2
	Change in Volume, %	±15	0
	Change in Visual Appearance	-	Pass

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