

AUBURN PRODUCT NEWS

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PORON[®] 4701-41(Enhanced Sealability) **Typical Products Properties**

PROPERTY	TEST METHOD	VALUE		
Physical				
Density, lb/ft ³ (kg/m ³)	ASTM D3574 – Test A	15 (240)	20 (320)	30 (480)
Tolerance, %	-	± 10%		
Thickness, inches (mm)	-	.188-.500 (4.78-12.70)	.062-.125 (1.57-3.18)	.031-.045 (.79-1.14)
Tolerance, %	-	± 10%		
Standard Color, (Code)	-	Black (04)		
Compression Set, % Max. after 24 hour recovery	ASTM D1667-90 – Test D @ 73°F (23°C) ASTM D3574 – Test D @ 158 F (70°C) ASTM D3574 – Test J/Test D After autoclaved 5 hrs. @ 250°F (121°C)	5 10 5		
Compression Force Deflection, psi (kPa) Typical psi (kPa)	0.20"/min. Strain Rate. Force Measured @ 25% Deflection	5-11 (35-76) 9.3 (64)	10-17 (69-117) 15 (103)	15-40 (104-276) 28 (193)
Resilience by Vertical Rebound Value, %	ASTM D2632-96	4		
Dimensional Stability, % max. change	22 hrs. @ 176°F (80°C) in a forced-air oven	± 2%		
Hardness, Durometer, Shore "0"	ASTM D2240-97	18	24	55
Tear Strength, pli, typical (kN/m) Typical pli (kN/m)	ASTM D624 – Die C	6 (1.1) 10 (1.8)	8 (1.4) 13 (2.3)	15 (2.6) 18 (3.2)
Tensile Elongation, % min. Typical	ASTM D3574 – Test E	100 149	100 140	100 136
Tensile Strength, psi, min. kPa, Typical psi (kPa)	ASTM D3574 – Test E	40 (276) 67 (462)	75 (517) 88 (607)	120 (827) 149 (1027)
Thermal				
Temperature Resistance Recommended Constant Use, max. Recommended Intermittent Use, max.	SAE J-2236 ASTM D 746-98	194°F – (90°C) 250°F – (121°C)		
Thermal Conductivity, W/m-C (BTU-in./hr. ft ² -F)	ASTM C518-98	-	-	-
Coefficient of Thermal Expansion	ASTM D257	2.30-3.1 X 10 ⁻⁴ in./in./°C		
Embrittlement	ASTM D 746-98	-		
Cold Flexibility	MIL-P-12420D 1991 @ -40°F (40°C)	Pass		
Electrical				
Dielectric Constant, K' ("DK")	ASTM D 150 measurements a 72 F (22 C) relative humidity 50% for 24 hrs.	1.48		

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Typical Products Properties...Continued

Electrical...Continued				
Surface Resistivity, ohm/cm	ASTM D257-99	2 x 10 ¹²		
Volume Resistivity, ohm/cm	ASTM D257-99	1 x 10 ¹²		
Dielectric Constant, K' ("DK")	ASTM D150 measurements @ 76°F (22°C) relative humidity 50% for 24 hrs.	1.71		
Dissipation Factor, tan D ("DF")	ASTM D150-98	0.05		
Dielectric Strength, volts/mil	ASTM D149-97a	50		
Flammability and Outgassing				
Flammability	UL 94HBF (File E20305) (Pass ≥) MVSS 302 (Pass ≥) CSA Comp HBF (File 188149) (Pass ≥)	0.197 - -		
Fogging	SAE-J1756 3 hrs @ 212°F (100°C)	Pass		
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 257°F (125 °) @ 7x10 ⁻³ Pa	0.84	0.97	1.0
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.05	0.04	0.06
Outgassing, Water Vapor Regain (WVR) %		0.4	0.46	0.65
Environmental				
Gasketing and Sealing	UL JMST2 (Consisting of UL50 and UL508) CAN/CSA – C22.2 No. 94-M91	File MH15464 File 188149		
Water Absorption, Immersion testing, % weight gain, typ.	AMS 3568-95	3		
Water Absorption, High Humidity Exposure, % weight gain, typ.	ASTM D 570-95	15	13	6
UV Resistance	ASTM G 53-96	-		
Ozone Resistance	GM 4486P-95	-		
Corrosion Resistance	AMS 3568-91	-		
Mildew/Bacteria Resistance	ASTM G 21	Good		
Staining	ASTM D 925	No Stain		
Skin Contact Irritation	Primary Skin Irritation Test (FHSA)	Pass		

The Information contained in this data sheet is intended to assist you in designing with PORON[®] Urethane. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on the data sheet will be achieved by a user for a particular purpose. The user should determine the suitability of PORON[®] Urethane for each application.

Notes:

- 1) All metric conversions are approximate.
- 2) Additional technical information is available.