

AUBURN PRODUCT NEWS

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Typical Product Properties

(Revised September 2007)

PORON[®] 4701-40 (Soft)

PROPERTY	TEST METHOD	VALUE		
Physical				
Density, lb/ft ³ (kg/m ³)	ASTM D3574-95, Test A	15 (240)	20 (320)	30 (480)
Tolerance, %	-	± 10%		
Thickness, inches (mm)	-	0.188-0.500 (4,78-12,70)	0.062-0.125 (1,57-3,18)	0.031-0.045 (0,79-1,14)
Tolerance, %	-	± 10		± 20
Standard Color, (Code)	-	Black (04)		
Compression Set, % Max.	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	4-8 (27-55) 5 (41)	7-13 (48-90) 11 (76)	15-40 (104-276) 25 (173)
Resilience by Vertical Rebound Value, %	ASTM D2632-96	4		
Dimensional Stability, % max. change	22 hrs. @ 176°F (80°C) in a forced-air oven	± 1%		
Hardness, Durometer, Shore "0" Shore "A"	ASTM D2240-97	12 8	17 12	34 25
Tear Strength, Min.pli (kN/m), Typical pli (kN/m)	ASTM D264-91 Die C	3 (0.5) 9 (6.1)	5 (0.9) 12 (2.1)	12 (2.1) 17 (3.0)
Tensile Elongation, % min. Typical	ASTM D3574-75 Test E	100 160	100 155	100 145
Tensile Strength, psi, min. kPa Typical psi (kPa)	ASTM D3574-75 Test E	40 (276) 70 (484)	75 (518) 95 (657)	120 (829) 170 (1175)
Temperature Resistance				
Recommended Constant Use, max.	SAE J-2236	194°F – (90°C)		
Recommended Intermittent Use, max	ASTM D 746-98	250°F – (121°C)		
Embrittlement	ASTM D 746-98	-40°F – (-40°C)		
Cold Flexibility	MIL-P-12420D 1991 @ -40°F (-40°C)	Pass		
Electrical and Thermal				
Thermal Conductivity, W/m-C (BTU-in./hr. ft ² -F)	ASTM C518-98	-	0.086 (0.60)	-
Coefficient of Thermal Expansion	ASTM D257	2.3 – 3.1x 10 ⁻⁴ in./in./°C		
Dielectric Constant, K' ("DK")	ASTM D 150 measurements a 72 F (22 C) relative humidity 50% for 24 hrs.	1.48		
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.	1.48		
Dissipation Factor, tan D ("DF")	ASTM D150-98	0.05		
Dielectric Strength, volts/mil	ASTM D149-97a	50		

PORON[®] 4701-40 Soft (Continued)

Flammability and Outgassing				
Flammability	UL 94HBF (File E20305) (Pass ≥)	0.188"	0.062"	-
	MVSS 302 (Pass ≥)	0.188"	0.062"	-
	CSA Comp HBF (File 188149) (Pass ≥)	0.188"	0.062"	-
Fogging	SAE-J1756 3 hrs @ 212°F (100°C)	Pass	Pass	-
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 257°F (125 °) @ 7x10 ³ Pa	0.7	0.8	1.0
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.04	0.04	0.05
Outgassing, Water Vapor Regain (WVR) %		0.3	0.3	0.62
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, typical	AMS 3568-95	19	10	-
Water Absorption, High Humidity Exposure, % weight gain, typical	ASTM D 570-95	2	2	-
UV Resistance	ASTM G 53-96	Good	Good	-
Ozone Resistance	GM 4486P-95	Pass	Pass	-
Corrosion Resistance	AMS 3568-91	Pass	Pass	-
Mildew/Bacteria Resistance	ASTM G 21	Good		
Staining	ASTM D 925	No Stain		
Skin Contact Irritation	Primary Skin Irritation Test (FHSA)	Pass		

Notes:

- 1) All metric conversions are approximate
- 2) Thinner versions of this product are available supported
- 3) Note that some of the above test results may be altered with the addition of the PET film.