

Product Data Sheet

PORON® AquaPro™ 4701-41 Soft – Enhanced Sealability

PROPERTY	TEST METHOD	VALUE		
PHYSICAL				
Density, lb. / ft ³ (kg /m ³)	ASTM D 3574-95, 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 Force Deflection, psi (kPa)	0.2" / min. Strain Rate Force Measured @ 25% Deflection	6 - 12 (41 - 83)	11 - 20 (76 - 138)	20 - 46 (138 - 317)
Typical psi (kPa)		9.3 (64)	15 (103)	28 (193)
Hardness, Durometer, Shore "O"	ASTM D 2240-97	18	24	55
Compression Set, % max. after 24 hour recovery	ASTM D 3574-95	5		
	Test D @ 73°F (23°C)			
	ASTM D 3574-95	10		
	Test D @ 158°F (70°C)			
	ASTM D 3574-95 Test J/Test D	5		
	autoclaved 5 hrs @ 250°F (121°C)			
Dimensional Stability, % max. change	22 hrs @ 176°F (80°C) in a forced-air oven	± 2		
Tensile Strength, Min. psi (kPa), Typical psi (kPa)	ASTM D 3574-75 Test E	40 (276) 67 (462)	75 (517) 88 (607)	120 (827) 149 (1027)
Tensile Elongation, % min., Typical	ASTM D 3574-75 Test E	100 149	100 140	100 136
Tear Strength, Min. pli (kN/m), Typical pli (kN/m)	ASTM D 264-91 Die C	6 (1.1) 10 (1.8)	8 (1.4) 13 (2.3)	15 (2.6) 18 (3.2)
ELECTRICAL AND THERMAL				
Dielectric Constant, K' ("DK")	ASTM D 150 measurements at 72°F (22°C) relative humidity 50% for 24 hrs.	1.71		
Dielectric Strength, volts/mil	ASTM D 149-97a	50		
Dissipation Factor, tan D ("DF")	ASTM D 150-98	0.05		
Volume Resistivity, ohm-cm	ASTM D 257-99	1 x 10 ¹²		
Surface Resistivity, ohm/sq.	ASTM D 257-99	2 x 10 ¹²		
Thermal Conductivity, W/m-C (BTU-in./hr/ft ² -F)	ASTM C 518-98	-	-	-
Coefficient of Thermal Expansion		2.3 - 3.1 x 10 ⁻⁴ in./in./°C		

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TEMPERATURE RESISTANCE				
Recommended Constant Use, max.	SAE J-2236	194°F (90°C)		
Recommended Intermittent Use, max.		250°F (121°C)		
Embrittlement	ASTM D 746-98	-		
Cold Flexibility	MIL-P-12420D 1991 @ -40°F (40°C)	Pass		
FLAMMABILITY AND OUTGASSING				
Flammability	UL 94HBF (File E20305) (Pass ≥) MVSS 302 (Pass ≥) CSA Comp HBF (File 188149) (Pass ≥)	0.188" - -		
Fogging	SAE J-1756 3 hrs @ 212°F (100°C)	-		
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 257°F (125°C) @ <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		
Moisture Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	3		
Water Absorption, Immersion Testing, % weight gain, typical	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		

Notes: All metric conversions are approximate.
Additional technical information is available.

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