Argent

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PORON® AquaPro® 4701-41
Soft - Enhanced Sealability

PROPERTY	TEST METHOD	TYPICAL VALUE		
PHYSICAL				
Density, kg/m³ (lb./ft³)	ASTM D3574-95, Test A	240 (15)	320 (20)	480 (30)
Tolerance, %			± 10	
Thickness, mm (inches)		4.78 - 12.7 (0.188 - 0.500)	1.57 - 3.18 (0.062 - 0.125)	0.79 - 1.14 (0.031 - 0.045)
Tolerance, %		± 10	± 10	± 20
Standard Color (Code)			Black (04)	
Compression Force Deflection, kPa (psi)	0.51cm/min (0.2"/min) Strain Rate Force Measured @ 25% Deflection	41 - 83 (6 - 12)	76-183 (11-20)	138-317 (20-46)
Typical kPa, (psi)		69 (9.3)	103 (15)	193 (28)
Hardness, Durometer Shore O	ASTM D2240-97	18	24	55
Compression Set, % max After 24 hour Recovery	ASTM D3574-95 Test D @ 23°C (73°F) ASTM D3574-95 Test D @ 70°C (158°F) ASTM D3574-95 Test J/Test D Autoclaved 5 hrs @ 121°C (250°F)		5 10 5	
Dimensional Stability, % max change	22 hrs @ 80°C (176°F) in a Forced-Air Oven		± 2	
Tensile Strength, kPa (psi) min.	ASTM D3574-75, Test E	276 (40)	517 (75)	827 (120)
Tensile Elongation, % min.	ASTM D3574-75, Test E		100	
Tear Strength, kN/m (pli) min.	ASTM D264-91 Die C	1.1 (6)	1.4 (8)	2.6 (15)
Typical kN/m (pli)		1.8 (10)	2.3 (13)	3.2 (18)
ELECTRICAL & THERMAL				
Dielectric Constant, K' ("DK")	ASTM D150 Measurements at 22°C (72°F) Relative Humidity 50% for 24 hrs.		1.71	
Dielectric Strength, kV/m (volts/mil)	ASTM D149-97a		1969 (50)	
Dissipation Factor, tan D ("DF")	ASTM D150-98		0.05	
Volume Resistivity, ohm-cm	ASTM D257-99		1×10^{12}	
Surface Resistivity, ohm/sq	ASTM D257-99		2×10^{12}	
Thermal Conductivity, W/m-C (BTU-in./hr/ft²-F)	ASTM C518-98		-	
Coefficient of Thermal Expansion			$2.3\text{-}3.1 \times 10^{-4}$ in/in/°C ($1.3\text{-}1.7 \times 10^{-4}$ in/in/°F)	

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PROPERTY	TEST METHOD	TYPICAL VALUE		
TEMPERATURE RESISTANCE		240 (15)	320 (20)	480 (30)
Recommended Constant Use, max.	SAE J-2236		90°C (194°F)	
Recommended Intermittent Use, max.			121°C (250°F)	
Embrittlement	ASTM D746-98		-	
Cold Flexibility	MIL-P-12420D 1991 @ -40°C (-40°F)		Pass	
FLAMMABILITY AND OUTGASSING				
Flammability, mm (inches)	UL 94HBF‡ (File E20305) (Pass ≥) FMVSS 302 (Pass ≥) CSA Comp HBF (File 188149) (Pass ≥)		4.8 (0.188) - -	
Fogging	SAE J-1756 3 hrs @ 100°C (212°F)		-	
Outgassing, Total Mass Loss (TML) %	ASTM E595-93 24 hrs @ 125°C (257°F) @ <7 x 10^3 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 & Sealing	UL JMST2 (Consisting of UL50 & 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 D570-95	15	13	6
UV Resistance	ASTM G53-96		-	
Ozone Resistance	GM 4486P-95		-	
Corrosion Resistance	AMS 3568-91		-	
Mildew/Bacteria Resistance	ASTM G21		Good	
Staining	ASTM D925		No Stain	
Skin Contact Irritation	Primary Skin Irritation Test (FHSA)		Pass	

Notes:

‡Designed to meet UL 94 HBF based upon 2022 test criteria. As of 2023 items with nominal density ≥ 15.6lb/ft^3 (250kg/m^3) are no longer eligible to be tested for UL 94 HBF but remain equivalent.

- - Represents testing not available at this time.
- All metric conversions are approximate.
- Additional technical information is available.
- Typical values should not be used for specification limits.

To order PORON materials, please contact our Sales Specialists at 860.928.3622 or via email at EMS_CT_cust_serv@rogerscorporation.com

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