Argent

poron® ALWAYS THERE

PORON® 4790-92 Extra Soft Slow Rebound (Supported)

PROPERTY	TEST METHOD	VALUE		
PHYSICAL				
Density, kg/m³ (lb./ft³)	ASTM D3574-95, Test A	240 (15)	320 (20)	400 (25)
Tolerance			± 10	
Thickness, mm (inches)		1.00 - 3.05 (0.039 - 0.120)	2.06 (0.081)	0.53 - 1.04 (0.021 - 0.041)
Tolerance, %		±10	± 10	± 15
Standard Color (Code)			Black (04)	
Compression Force Deflection, kPa (psi)	0.51 cm/min (0.2"/min Strain Rate Force Measured @ 25% Deflection	2 - 24 (0.3 - 3.5)	7 - 35 (1 - 5)	8 - 58 (1.25 - 8.5)
Typical kPa (psi)		12 (1.7)	22 (3.2)	37 (5.3)
Hardness, Durometer Shore O	ASTM D2240-97	2	-	-
Compression Set, % max	ASTM D1667-90 Test D @ 23°C (73°F)		2	
	ASTM D3574-95 Test D @ 70°C (158°F)		10	
	ASTM D3574-95 Test J/Test D Autoclaved 5 hrs @ 121°C (250°F)		-	
Resilience by Vertical Rebound, %	ASTM D2632-96	4	5	-
ELECTRICAL & THERMAL				
Dielectric Constant, K' ("DK")	ASTM D 150 @ 22°C (72°F) Relative Humidity 50% for 24 hrs		1.48	
Dielectric Strength, volts/mil	ASTM D149-97a		50	
Dissipation Factor, tan D ("DF")	ASTM D150-98		0.04	
Volume Resistivity, ohm-cm	ASTM D257-99		8×10^{11}	
Surface Resistivity, ohm/sq.	ASTM D257-99		10×10^{11}	
Thermal Conductivity, W/m-C	ASTM C518-98	0.083 (0.53)	-	-
BTU-in./hr/ft²-F)				
Coefficient of Thermal Expansion		$2.3 - 3.1 \times 10^{-4}$ in/in/°C ($1.3 - 1.7 \times 10^{-4}$ in/in/°F)		

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PROPERTY	TEST METHOD	VALUE		
TEMPERATURE RESISTANCE		240 (15)	320 (20)	400 (25)
Recommended Constant Use, max.	SAE J-2236		90°C (194°F)	
Recommended Intermittent Use, max.			121°C (250°F)	
Embrittlement	ASTM D746-98	-20°C (-4°F)	-18°C (0°F)	-12°C (10°F)
Cold Flexibility	MIL-P-12420D 1991 @ -40°C (-40°F)		-	
FLAMMABILITY & OUTGASSING				
Flammability, mm (inches)	UL 94HBF‡ (File E20305) (Pass ≥) FMVSS 302 (Pass ≥) CSA Comp HBR (File 188149) (Pass≥)		2.06 (0.081) 2.06 (0.081) 2.06 (0.081)	
Fogging	SAE J-1756 3 hrs @ 100°C (212°F)		Pass	
Outgassing, Total Mass Loss (TML) %	ASTM E595-93 24 hrs @ 125°C (257°F) @ <7 x 10^3 kPa	1.73	1.63	1.44
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.14	0.29	0.27
Outgassing, Water Vapor Regain (WVR) %		0.71	0.49	0.44
ENVIRONMENTAL				
Gasketing and Sealing	UL JMST2 (Consisting of UL50 & UL508) CAN/CSA-C22.2 No. 94-M91		- -	
Moisture Absorption, High Humidity Exposure, % Weight Gain, Typical	AMS 3568-95		2	
Water Absorption, Immersion Testing, % Weight Gain, Typical	ASTM D570-95	25	23	14
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	

The data mentioned above represents results of testing the PORON polyurethane foam only. PORON cellular polyurethane materials is supported by being directly cast onto 0.0508 mm (2 mil) polyester film. By casting directly onto the film, a permanent bond is created. Please see physical property data for the film as represented by manufacturer on the next page.

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SUPPORTING MATERIAL-Clear Polyester Film (PET)

PROPERTY	TEST METHOD	VALUE
Coefficient of Friction A/B, (Kinetic)	ASTM D1894	0.40
Density, kg/m^3 (lb./ft^3)	ASTM D1505	1.395 (87.1)
Modules, MD, kPa (psi)	ASTM D882	3.5 x 10^6 (5000,000)
Shrinkage, MD, %, (TD)	39 min @ 150°C (302°F)	1.2 (0.0)
Tensile Strength, MD, kPa (psi)	ASTM D882	2.1 x 10^5 (30,000)
Ultimate Elongation	ASTM D882	150
Yield Strength (F5), kPa (psi)	ASTM D882	1.0 x 10^5 (15,000)

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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