

# PORON® 4701-30 Very Soft

PROPERTY	TEST METHOD	TYPICAL VALUE		
<b>PHYSICAL</b>				
Density, kg/m <sup>3</sup> (lb./ft <sup>3</sup> )	ASTM D3574-95, Test A	240 (15)	320 (20)	400 (25)
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	± 15
Standard Color (Code)		Black (04)		
Compression Force Deflection, kPa (psi)	0.51 cm/min (0.2"/min) Strain Rate Force Measured @ 25% Deflection	7 - 35 (1 - 5)	21 - 55 (3 - 8)	35 - 83 (5 - 12)
Typical kPa, (psi)		21 (3)	35 (5)	62 (9)
Hardness, Durometer Shore O	ASTM D2240-97	<3	8	16
Shore A		<3	5	12
Compression Set, % max	ASTM D1667-90 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)		2 10 5	
Dimensional Stability, % max change	22 hrs @ 80°C (176°F) in a Forced-Air Oven		± 1	
Tensile Strength, kPa (psi) min.	ASTM D3574-75, Test E	138 (20)	207 (30)	242 (35)
Typical kPa, (psi)		207 (30)	346 (50)	484 (70)
Tensile Elongation, % min.	ASTM D3574-75, Test E	100	100	100
Typical		160	155	150
Tear Strength, kN/m (pli) min.	ASTM D264-91 Die C	0.2 (1)	0.5 (3)	0.7 (4)
Typical kN/m (pli)		0.9 (5)	1.2 (7)	1.8 (10)

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<b>ELECTRICAL &amp; THERMAL</b>		240 (15)	320 (20)	400 (25)
Dielectric Constant, K' ("DK")	ASTM D150 Measurements at 22°C (72°F) Relative Humidity 50% for 24 hrs.	1.75		
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 (ohm-in)	ASTM D257-99	3 x 10 <sup>11</sup> (1.18 x 10 <sup>11</sup> )		
Surface Resistivity, ohm/sq	ASTM D257-99	6 x 10 <sup>11</sup>		
Thermal Conductivity, W/m-C (BTU-in./hr/ft <sup>2</sup> -F)	ASTM C518-98	-	0.076 (0.53)	-
Coefficient of Thermal Expansion		2.3-3.1 x 10 <sup>-4</sup> in/in/°C (1.3-1.7 x 10 <sup>-4</sup> in/in/°F)		
<b>TEMPERATURE RESISTANCE</b>				
Recommended Constant Use, max.	SAE J-2236	90°C (194°F)		
Recommended Intermittent Use, max.		121°C (250°F)		
Embrittlement	ASTM D746-98	-51°C (-60°F)		
Cold Flexibility	MIL-P-12420D 1991 @ -40°C (-40°F)	Pass		
<b>FLAMMABILITY AND OUTGASSING</b>				
Flammability, mm (inches)	UL 94HBF <sup>‡</sup> (File E20305) (Pass ≥)	4.8 (0.188)	2.4 (0.093)	-
	FMVSS 302 (Pass ≥)	4.8 (0.188)	1.6 (0.062)	1.6 (0.062)
	CSA Comp HBF (File 188149) (Pass ≥)	4.8 (0.188)	2.4 (0.093)	-
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) @ <7kPa (1.02 psi)	0.8	1.0	1.3
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.1	0.1	0.2
Outgassing, Water Vapor Regain (WVR) %		0.2	0.3	0.6
<b>ENVIRONMENTAL</b>				
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	2		
Water Absorption, Immersion Testing, % Weight Gain, Typical	ASTM D570-95	12	9	14
UV Resistance	ASTM G53-96	Good		
Ozone Resistance	GM 4486P-95	Pass	Pass	-
Corrosion Resistance	AMS 3568-91	Pass		
Mildew/Bacteria Resistance	ASTM G21	Good		
Staining	ASTM D925	No Stain		

Notes:

<sup>‡</sup>Designed to meet UL 94 HBF based upon 2022 test criteria. As of 2023 items with nominal density ≥ 15.6lb/ft<sup>3</sup> (250kg/m<sup>3</sup>) 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.

For more information and to request a sample, please contact our team of experts at [solutions@rogerscorp.com](mailto:solutions@rogerscorp.com)