

PORON® 4701-40-20125-04P Soft – Supported – Product Data Sheet

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, kg /m ³ (lb. / ft ³)	ASTM D 3574-95, Test A	320 (20)
Tolerance, %		± 10
Thickness, mm (inches)		3.18 (0.125)
Tolerance % - mm - inches		± 10 (± 0.318) (± 0.0125)
Standard Color (Code)		Black (04)
Compression Force Deflection, kPa (psi) Typical kPa (psi)	.51 cm/min (0.2" / min) Strain Rate Force Measured @ 25% Deflection	48 - 90 (7 - 13) 76 (11)
Hardness, Durometer, Shore "O"	ASTM D 2240-97	17
Compression Set, % max.	ASTM D 3574-95 Test D @ 23°C (73°F) ASTM D 3574-95 Test D @ 70°C (158°F) ASTM D 3574-95 Test J/Test D autoclaved 5 hrs @ 121°C (250°F)	5 10 -
Dimensional Stability, % max. change	22 hrs @ 80°C (176°F) in a forced-air oven	-
Tensile Strength, kPa (psi), min Typical kPa (psi)	ASTM D 3574-75 Test E	-
Tensile Elongation, % min., Typical	ASTM D 3574-75 Test E	-
Tear Strength, kN/m (pli), min Typical kN/m (pli)	ASTM D 264-91 Die C	-
ELECTRICAL AND THERMAL		
Dielectric Constant, K' ("DK")	ASTM D 150 measurements at 22°C (72°F) relative humidity 50% for 24 hrs.	1.71
Dielectric Strength, kV/m (volts/mil)	ASTM D 149-97a	1969 (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	0.086 (0.60)
Coefficient of Thermal Expansion		2.3 - 3.1 x 10 ⁻⁴ in./in./°C (1.3-1.7 x 10 ⁻⁴ in/in/°F)

- 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

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PORON® 4701-40-20125-04P Soft – Supported, Continued

PROPERTY	TEST METHOD	VALUE
Density, kg /m ³ (lb. / ft ³)	ASTM D 3574-95, Test A	320 (20)
TEMPERATURE RESISTANCE		
Recommended Constant Use, max.	SAE J-2236	90°C (194°F)
Recommended Intermittent Use, max.		121°C (250°F)
Embrittlement	ASTM D 746-98	-40°C (-40°F)
Cold Flexibility	MIL-P-12420D 1991 @ -40°C (-40°F)	Pass
FLAMMABILITY AND OUTGASSING		
Flammability	UL 94HBF (File E20305) (Pass ≥) MVSS 302 (Pass ≥) CSA Comp HBF (File 188149) (Pass ≥)	- - -
Fogging	SAE J-1756 3 hrs @ 100°C (212°F)	Pass
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 125°C (257°F) @ <7 kPa (1.02 psi)	0.8
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.05
Outgassing, Water Vapor Regain (WVR) %		0.3
ENVIRONMENTAL		
Gasketing and Sealing	UL JMST2 (Consisting of UL50 and UL508) CAN/CSA – C22.2 No. 94-M91	File MH15464 -
Moisture Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	2
Water Absorption, Immersion Testing, % weight gain, typical	ASTM D 570-95	5
UV Resistance	ASTM G 53-96	Good
Ozone Resistance	GM 4486P-95	Pass
Corrosion Resistance	AMS 3568-91	Pass
Mildew/Bacteria Resistance	ASTM G 21	Good
Staining	ASTM D 925	No Stain

The data mentioned above represents results of testing the PORON polyurethane foam only. The PORON foam is supported by being directly cast onto a 0.05mm (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 below.

Supporting Material - Clear Polyester Film (PET)

PROPERTY	TEST METHOD	VALUE
Coefficient of Friction A/B, (Kinetic)	ASTM D 1894	0.40
Density, kg /m ³ (lb. / ft ³)	ASTM D 1505	1395 (87.1)
Modules, MD, kPa (psi)	ASTM D 882	3.5 x 10 ⁶ (500,000)
Shrinkage, MD, %, (TD)	39 min. at 150°C (302°F)	1.2 (0.0)
Tensile Strength, MD, kPa (psi)	ASTM D 882	2.1 x 10 ⁵ (30,000)
Ultimate Elongation	ASTM D 882	150
Yield Strength (F5), kPa (psi)	ASTM D 882	1.0 x 10 ⁵ (15,000)

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