



PORON® Polyurethanes

Typical Product Properties

PORON® 4790-92-25021-04P - Extra Soft - Slow Rebound - Supported – Data Sheet

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, kg/m ³ (lb./ft ³) Tolerance, %	ASTM D3574-95, Test A	400 (25) ± 10
Thickness, mm (inches) Tolerance, mm (inches)		0.53 (0.021) 0.08 (±0.003)
Standard Color (Code)		Black (04)
Compression Force Deflection, Range kPa (psi), Typical kPa (psi)	0.51 cm/min (0.2" / min) Strain Rate Force Measured @ 25% Deflection	8 – 58 (1.25 - 8.5) 37 (5.3)
Compression Set, % max.	ASTM D 3574-95 Test D @ 23°C (73°F) ASTM D 3574-95 Test D @ 70°C (158°F)	2 10
ELECTRICAL AND THERMAL		
Dielectric Constant, K', "DK"	ASTM D 150 measurements at 22°C (72°F) relative humidity 50% for 24 hrs.	1.48
Dielectric Strength, kV/m (volts/mil)	ASTM D 149-97a	1969 (50)
Dissipation Factor, tan D, "DF"	ASTM D 150-98	0.04
Volume Resistivity, ohm-cm (ohm-in)	ASTM D 257-99	8.0 x 10 ¹¹ (3.2 x 10 ¹¹)
Surface Resistivity, ohm/sq.	ASTM D 257-99	10.0 x 10 ¹¹
Coefficient of Thermal Expansion		2.3 - 3.1 x 10 ⁻⁴ in/in/°C (1.3-1.7 x 10 ⁻⁴ in/in/°F)
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	-12°C (10°F)

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PORON® 4790-92-25021-04P - Extra Soft - Slow Rebound - Supported, Continued

PROPERTY	TEST METHOD	VALUE
OUTGASSING		
Fogging	SAE J-1756	Pass
Outgassing		
Total Mass Loss (TML) %	ASTM E 595-93	1.44
Collected Volatile Condensable Materials (CVCM) %	24 hrs @ 125°C (257°F) @ <7 kPa (1.02 psi)	0.27
Water Vapor Regain (WVR) %		0.44
ENVIRONMENTAL		
Moisture Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	2
Water Absorption, Immersion Testing, % weight gain, typical	ASTM D 570-95	14

The data mentioned above represents results of testing the PORON polyurethane foam only. PORON cellular polyurethane material is supported by being directly cast onto 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	1.395 (87.1)
Modulus, 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)

Notes:

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

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