ROGERS CORPORATION

PORON® Polyurethanes

Elastomeric Material Solutions
www.rogerscorp.com

Typical Product Properties

PORON® 4790-92-25031-04P-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, %		0.79 (0.031) ± 15
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, volts/mil	ASTM D 149-97a	50
Dissipation Factor, tan D, "DF"	ASTM D 150-98	0.04
Volume Resistivity, ohm-cm	ASTM D 257-99	8.0 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 (1.3-1.7x10^{-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)

PORON® 4790-92-25031-04P-Extra Soft Slow-Rebound-Supported, Continued

PROPERTY	TEST METHOD	VALUE
OUTGASSING		
Fogging	SAE J-1756	Pass
Outgassing Total Mass Loss (TML) % Collected Volatile Condensable Materials (CVCM) % Water Vapor Regain (WVR) %	ASTM E 595-93 24 hrs @125°C (257°F) @ <7x10^{3} Pa	 1.44 0.27 0.44
ENVIRONMENTAL		
Skin Contact	Primary Skin Irritation Test (FHSA)	Pass
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.