

PORON<sup>®</sup> Polyurethanes



Authorized Distributor,

Converter, and Fabricator

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**Typical Product Properties** 

## PORON<sup>®</sup> 4790-92-25031-04P-Extra Soft Slow-Rebound-Supported – Data Sheet

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, kg/m³ (lb./ft³)	ASTM D3574-95 Test A	400 (25)
Tolerance, %		± 10
Thickness, mm (inches)		0.79 (0.031)
Tolerance, %		± 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 <sup>11</sup>
Surface Resistivity, ohm/sq.	ASTM D 257-99	10.0 x 10 <sup>11</sup>
Coefficient of Thermal Expansion		2.3 - 3.1 x 10 <sup>-4</sup> in./in./°C (1.3-1.7x10 <sup>-4</sup> 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<sup>®</sup> 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) %	ASTM E 595-93	1.44		
Collected Volatile Condensable Materials (CVCM) %	24 hrs @125°C (257°F) @ <7x10 <sup>3</sup> Pa	0.27		
Water Vapor Regain (WVR) %		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 /m³ (lb. / ft³)	ASTM D 1505	1.395 (87.1)
Modulus, MD, kPa (psi)	ASTM D 882	3.5 x 10 <sup>6</sup> (500,000)
Shrinkage <b>,</b> 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 <sup>5</sup> (30,000)
Ultimate Elongation	ASTM D 882	150
Yield Strength (F5), kPa (psi)	ASTM D 882	1.0 x 10 <sup>5</sup> (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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