ROGERS CORPORATION

PORON® Urethane Foams

High Performance Foams Division
245 Woodstock Road
Woodstock, CT 06281-1815
Tel: 860.928.3622 / Fax: 860.928.7843
www.rogerscorporation.com

Typical Product Properties

PORON® 4790-92-25021 P (Supported) Extra Soft – Slow Rebound

PROPERTY	TEST METHOD	VALUE
PHYSICAL		
Density, lb./ft^3 (kg/m^3) **Tolerance, %**	ASTM D3574-95 Test A	25 (400) **± 10**
Thickness, inches (mm) **Tolerance, %**		0.021 (0.53) **± 15**
Standard Color (Code)		Black (04)
Compression Force Deflection, Range psi (kPa), **Typical psi (kPa)**	0.2" / min. Strain Rate Force Measured @ 25% Deflection	1.25 - 8.5 (8 - 58) **5.3 (37)**
Compression Set, % max.	ASTM D 1667-90 Test D @ 73°F (23°C) ASTM D 3574-95 Test D @ 158°F (70°C)	2 10
ELECTRICAL AND THERMAL		
Dielectric Constant, K', "DK"	ASTM D 150 measurements at 72°F (22°C) 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
TEMPERATURE RESISTANCE		
Recommended Constant Use, max.	SAE J-2236	158°F (70°C)
Recommended Intermittent Use, max.	ASTM D 746-98	250°F (121°C)
Embrittlement	ASTM D 746-98	-10°F (-12°C)

Please see reverse side for additional data.

MARIAN 1-800-773-0062 www.marianinc.com

PORON® 4790-92-25021 P (Supported) Continued
Extra Soft – Slow Rebound

PROPERTY	TEST METHOD	VALUE
OUTGASSING		
Fogging	SAE J-1756	Pass
Outgassing		
Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @257°F (125°C) @ <7x10^{3} Pa	1.44
Collected Volatile Condensable Materials (CVCM) %		0.27
Water Vapor Regain (WVR) %		0.44
ENVIRONMENTAL		
Skin Contact	Primary Skin Irritation Test (FHSA)	Pass
Water 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® urethane foam only. PORON cellular urethane materials are supported by being directly cast onto 2 mil polyester film. Please see physical property data for the film as represented by manufacturer below.

Supporting Material - Clear Polyester Film (PET)

PROPERTY	TEST METHOD	VALUE
Density, lb./ft^{3} (kg/m^{3})	ASTM D 1505	87 (1395)
Tensile Strength, Machine Direction, psi (kg/cm^{2})	ASTM D 882	30,000 (2,110)
Ultimate Elongation, %	ASTM D 882	150
Shrinkage, Machine Direction, % (Cross-machine Direction)	39 min. at 150°C	1.2 (0.0)
Yield Strength (F5), psi (kg/cm^{2})	ASTM D 882	15,000 (1,050)
Coefficient of Friction A/B, Kinetic	ASTM D 1894	0.40
Modulus, Machine Direction, psi (kg/cm^{2})	ASTM D 882	500,000 (35,200)

The information contained in this data sheet is intended to assist you in designing with Rogers PORON Urethane Foams. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that the results shown on this data sheet will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Rogers PORON Urethane Foams for each application.

Notes: All metric conversions are approximate.
Additional technical information is available.

4071-0804-PDF, **Publication 17-084**

MARIAN 1-800-773-0062
www.marianinc.com