ROGERS CORPORATION

PORON® Urethane Foams

SRP

847-593-5630
www.srpco.com

PORON 4701-30 Very Soft – Supported

PROPERTY	TEST METHOD	VALUE	
PHYSICAL			
Density, lb. / ft^3 (kg /m^3)	ASTM D 3574-95, Test A	20 (320)	25 (400)
Tolerance, %		**± 10**	
Thickness, inches (mm)		0.064 - 0.095 (1,63 - 2,36)	0.021 - 0.047 (0,53 - 1,19)
Tolerance, %		**± 10**	**± 15**
Standard Color (Code)		Black (04)	
Compression Force Deflection, psi (kPa) **Typical psi (kPa)**	0.2" / min. Strain Rate Force Measured @ 25% Deflection	3 - 8 (21 - 55) **5.0 (34)**	5 - 12 (35 - 83) **8.4 (58)**
Hardness, Durometer, Shore "O"	ASTM D 2240-97	8	16
Compression Set, % max.	ASTM D 1667-90 Test D @ 73°F (23°C) ASTM D 3574-95 Test D @ 158°F (70°C) ASTM D 3574-95 Test J/Test D autoclaved 5 hrs @ 250°F (121°C)	4 10 -	
Dimensional Stability, % max. change	22 hrs @ 176°F (80°C) in a forced-air oven	-	
Tensile Strength, Min. psi (kPa), **Typical psi (kPa)**	ASTM D 3574-75 Test E	-	
Tensile Elongation, % min., **Typical**	ASTM D 3574-75 Test E	-	
Tear Strength, Min. pli (kN/m), **Typical pli (kN/m)**	ASTM D 264-91 Die C	-	
ELECTRICAL AND THERMAL			
Dielectric Constant, K' ("DK")	ASTM D 150 measurements at 72°F (22°C) relative humidity 50% for 24 hrs.	1.75	
Dielectric Strength, volts/mil	ASTM D 149-97a	50	
Dissipation Factor, tan D ("DF")	ASTM D 150-98	0.05	
Volume Resistivity, ohm-cm	ASTM D 257-99	3.1 x 10^{11}	
Surface Resistivity, ohm/sq.	ASTM D 257-99	5.9 x 10^{11}	
Thermal Conductivity, W/m-C (BTU-in./hr/ft^2-F)	ASTM C 518-98	0.076 (0.53)	-
Coefficient of Thermal Expansion		2.3 - 3.1 x 10^{-4} in./in./°C	

Please see reverse side for additional data.

PORON 4701-30 Very Soft – Supported Continued

PROPERTY	TEST METHOD	VALUE	
Density, lb. / ft^3 (kg /m^3)	ASTM D 3574-95, Test A	20 (320)	25 (400)
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	-60°F (-51°C)	
Cold Flexibility	MIL-P-12420D 1991 @ -40°F (40°C)	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 @ 212°F (100°C)	Pass	
Outgassing, Total Mass Loss (TML) % **Outgassing**, Collected Volatile Condensable Materials (CVCM) % **Outgassing**, Water Vapor Regain (WVR) %	ASTM E 595-93 24 hrs @ 257°F (125°C) @ <7x10^3 Pa	1.0 0.1 0.3	1.3 0.2 0.6
ENVIRONMENTAL			
Gasketing and Sealing	UL JMST2 (Consisting of UL50 and UL508) CAN/CSA – C22.2 No. 94-M91	File MH15464 -	
Water Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	2	
Water Absorption, Immersion Testing, % weight gain, typical	ASTM D 570-95	9	14
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	
Skin Contact Irritation	Primary Skin Irritation Test (FHSA)	Pass	

The data mentioned above represents results of testing the PORON urethane foam only. PORON cellular urethane 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, g/cm^3	ASTM D 1505	1.395
Modules, MD, psi (kg/cm^2)	ASTM D 882	500,000 (35,200)
Shrinkage, MD, %, (TD)	39 min. at 150°C	1.2 (0.0)
Tensile Strength, MD, psi (kg/cm^2)	ASTM D 882	30,000 (2,110)
Ultimate Elongation	ASTM D 882	150
Yield Strength (F5), psi (kg/cm^2)	ASTM D 882	15,000 (1,050)

The information contained in this data sheet is intended to assist you in designing with Rogers PORON Urethane. 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 the data sheet will be achieved by a user for a particular purpose. The user should determine the suitability of Rogers PORON Urethane for each application.

Notes:

1. All metric conversions are approximate.
2. Additional technical information is available.

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