ROGERS CORPORATION

PORON® Urethane Foams

SRP
847-593-5630
www.srpco.com

Product Data Sheet

PORON® 4701-60 Very Firm

PROPERTY	TEST METHOD	VALUE		
PHYSICAL				
Density, lb. / ft^3 (kg /m^3)	ASTM D 3574-95, Test A	15 (240)	20 (320)	25 (400)
Tolerance, %		**± 10**		
Thickness, inches (mm)		0.125 - 0.250 (3.18 – 6.35)	0.031 - 0.188 (0.79 – 4.78)	0.031 - 0.093 (0.79 – 2.36)
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	18 - 50 (124 - 345) **36 (249)**	25 - 85 (172 - 586) **62 (428)**	50 - 130 (345 - 896) **93 (643)**
Hardness, Durometer, Shore "O", **Shore "A"**	ASTM D 2240-97	42 **30**	55 **42**	63 **53**
Compression Set, % max.	ASTM D 3574-95 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)	5 10 10		
Dimensional Stability, % max. change	22 hrs @ 176°F (80°C) in a forced-air oven	± 5		
Tensile Strength, Min. psi (kPa), **Typical psi (kPa)**	ASTM D 3574-75 Test E	135 (931) **170 (1175)**	200 (1382) **275 (1901)**	250 (1724) **380 (2627)**
Tensile Elongation, % min., **Typical**	ASTM D 3574-75 Test E	50 **75**	45 **75**	50 **75**
Tear Strength, Min. pli (kN/m), **Typical pli (kN/m)**	ASTM D 264-91 Die C	12 (2.1) **19 (3.3)**	17 (3.0) **25 (4.4)**	19 (3.3) **30 (5.3)**
ELECTRICAL AND THERMAL				
Dielectric Constant, K' ("DK")	ASTM D 150 measurements at 72°F (22°C) relative humidity 50% for 24 hrs.	1.60		
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	7 x 10^{12}		
Surface Resistivity, ohm/sq.	ASTM D 257-99	3 x 10^{12}		
Thermal Conductivity, W/m-C (BTU-in./hr/ft^2-F)	ASTM C 518-98	-	0.088 (0.61)	-
Coefficient of Thermal Expansion		2.3 - 3.1 x 10^{-4} in./in./°C		

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TEMPERATURE RESISTANCE				
Recommended Constant Use, max.	SAE J-2236	158°F (70°C)		
Recommended Intermittent Use, max.	UL JMST2 (UL50 and UL508)	250°F (121°C)		
Brittleness Temperature	ASTM D 746-98	3°F (-16°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 ≥)	0.125” 0.125” 0.125”	0.062” 0.062” 0.062”	- 0.062” -
Fogging	SAE J-1756 3 hrs @ 212°F (100°C)	Pass		
Outgassing, Total Mass Loss (TML) %	ASTM E 595-93 24 hrs @ 257°F (125°C) @ <7x10^3 Pa	0.6	0.7	0.7
Outgassing, Collected Volatile Condensable Materials (CVCM) %		0.05	0.02	0.03
Outgassing, Water Vapor Regain (WVR) %		0.5	0.5	0.6
ENVIRONMENTAL				
Gasketing and Sealing	UL JMST2 (UL50 and UL508) CAN/CSA – C22.2 No. 94-M91	File MH15464 File 188149		
Moisture Absorption, High Humidity Exposure, % weight gain, typical	AMS 3568-95	2		
Water Absorption, Immersion Testing, % weight gain, typical	ASTM D 570-95	19	20	6
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		

Notes: – Represents testing not available at this time.
All metric conversions are approximate.
Additional technical information is available.
Typical values should not be used for specification limits.