



performance
cushioning

PORON[®] Performance Urethanes – Typical Physical Properties

PROPERTY	TEST METHOD	PRODUCT				
		PORON Plus Cushioning (S-Soft)		PORON Performance Shock Absorbing (F-Firm)		
Formulation		PORON Plus Cushioning (S-Soft)		PORON Performance Shock Absorbing (F-Firm)		
Density lb. / ft ³	ASTM D3574-95 Test A	15	20	15	17	20
Specific Gravity		0.24	0.32	0.24	0.27	0.32
Tolerance, %		± 10				
Standard Thickness		See Product Availability				
Tolerance, %		± 10				
Standard Color		00 – Butterscotch		13 – Royal Blue		
Air Permeability	Gurley Densometer	Open Cell - Breathable				
Compression Set % max.	ASTM D3574 Test D @ 158°F (70°C)	10				
Compression Force Deflection, psi, (kPa)	0.2"/min. Strain Rate Force Measured @ 25% Deflection	4 – 8 (27–55)	6 – 14 (41– 97)	6 – 16 (41–111)	8 – 20 (55 - 138)	10 – 25 (69 - 172)
Hardness, Durometer	Shore "O"	12	17	18	20	24
Hydrolysis Resistance, Compression Set, % Max	ASTM D3574 Test J / Test D after autoclaved 5 hrs @ 250°F (121°C)	Good Resistance 5				
Resilience, Shore Instrument Resiliometer, avg (Ball Rebound Tester)	ASTM D 2632-96, Vertical Rebound	24	25	14	15	16
Water Vapor Transfer, Typical g/ft ² /24hrs (g/m ² /24hrs)	Based on ASTM E96-00	>19 (200)				
Water Absorption % Wt Gain	Based on ASTM D570	< 20				
Antimicrobial/Fungal Resistance	ASTM G21	Does not promote fungal growth				
Skin Contact	Primary Skin Irritation – FHSA	Pass				
Tear Strength pli, min. (kN/m)	ASTM D624 Die C	3 (0.5)	5 (0.9)	6 (1.1)	10 (1.8)	11 (1.9)
Tensile Elongation % min.	ASTM D3574 Test E	100	100	100	100	100
Tensile Strength psi, min. (kPa)	ASTM D3574 Test E	40 (276)	75 (517)	70 (483)	90 (621)	120 (827)
Temperature Resistance max Recommended Constant Use Recommended Intermittent Use	ASTM D746-98	90°C (194°F) 121°C (250°F)				
Staining	ASTM D925-88	No Stain				
Chemical Resistance		PORON Urethanes are unaffected by mild organic acids and bases. They show modest swelling with oils and greases and other linear hydrocarbons. Strongly polar solvents will greatly swell PORON Urethanes. In most cases, physical properties recover to a great extent as the solvents evaporate.				
Additional Solvent Resistance	Soap and Water 50/50	No tackiness or surface deterioration				

The above data represent typical values. 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. The user should determine the suitability of Rogers PORON Performance Urethanes for each application.

- Notes:
1. All metric conversions are approximate.
 2. Additional technical services are available.