

PORON Medical® Urethanes

PORON Medical® Urethane – Firm – Energy Absorbing Material

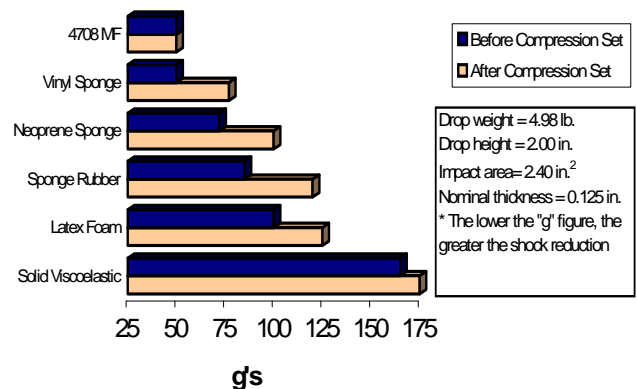
PORON Medical® Firm Urethanes offer high energy return and excellent impact absorption. They offer greater force for applications requiring firmer resistance and support. These materials absorb the force of impact.

- Superior Impact Absorption
- High Energy Return
- Long-term Comfort
 - Compression Set Resistance
 - Open-Cell – Breathable
 - Microcellular Structure
 - Fungal Resistant
 - Can be Abraded



PORON Medical Firm materials come in various densities. They are available in thicknesses from 1/16" (1.5mm) to 1/2" (12.7mm)

Other combinations are also available upon special order.



Continued on reverse

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PORON Medical® Urethanes – Firm – Energy Absorbing Materials

Typical Physical Properties

PROPERTY	TEST METHOD	PRODUCT		
Formulation		PORON MF		
Standard Thickness Tolerance, %		See Product Availability ± 10		
Standard Width, mm (inch)		1372 (54)		
Standard Colors (Codes)		Panel Tan (41), Navy (11)		
Density, kg/m ³ , (lb/ft ³)	ASTM D 3574	240 (15)	272 (17)	320 (20)
Specific Gravity		0.240	0.272	0.320
Tolerance, %		± 10		
Compression Set, % max.	ASTM D 3574 @ 70°C (158°F)	10		
Compression Force Deflection, kPa (psi)	ASTM D 3574 @ 25% Deflection	41 – 111 (6 – 16)	55 – 138 (8 – 20)	69-172 (10-25)
Hardness, Durometer	Shore "OO"	63	66	
Resilience, Shore Instrument Resiliometer, Typical (Ball Rebound Tester)	ASTM D 2632, Vertical Rebound	14	15	16
Tear Strength, kN/m (pli), min.	ASTM D 624	1.1 (6)	1.8 (10)	1.9 (11)
Elongation, % min.	ASTM D 3574	100		
Tensile Strength, kPa (psi), min.	ASTM D 3574	483 (70)	621 (90)	827 (120)
Antimicrobial, Fungal Resistance	ASTM G 21	Does not promote fungal growth		
Surface Contact - Medical Device Primary Skin Irritation	ISO10993-10, 2010	Pass		
Air Permeability	Gurley Porosity Meter	Open-Cell – Breathable		
Water Vapor Transfer, Typical g/m ² /24hrs (g/ft ² /24hrs)	Based on ASTM E 96	200 (19)		
Water Absorption, Typical % Wt Gain	Based on ASTM D 570	< 20		
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.		
Temperature Resistance, max. Recommended Constant Use	SAE J-2236	90°C (194°F)		
Hydrolysis Resistance, Tensile Strength, kPa (psi) Compression Set, % max.	ASTM D 3574 Test J / Test D after autoclaved 5 hrs @ 121°C (250°F)	Good Resistance, 5		

* ISO 10993 certifications are specific to colors and density. Consult ISO 10993-1:2003(E) Guidelines for further detail.

Notes:

1. Typical values are a representation of an average value for the population of the property. For specification values, contact Rogers Corporation.
2. All metric conversions are approximate.
3. Additional technical services are available.



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