

PORON® Dual Layer Cushioning

Patented technology offers a unique solution for long-lasting comfort and shock absorbency in one flexible material

Who says you can't have it all? With PORON® Dual Layer Material you get the benefits of two distinct technologies in one: Custom contouring for incredible fit and feel with added shock absorption. Get maximum comfort and support for the life of your product with this patented technology developed by Rogers Corporation.

The standard PORON Dual Layer offering utilizes PORON Slow Rebound Soft Material for a customized, total contact fit and PORON Performance Material, which provides excellent shock absorption to help comfort joints and soft tissue. Together these materials are working to offer you even pressure distribution to aid in support and stability. The unique properties of PORON Dual Layer allow this material to continually rebound to its original form, so you get a custom fit during each use.

In the end, PORON Dual Layer Cushioning gives you a unique comfort and shock absorbing solution for a variety of products ranging from aftermarket insoles, comfort footwear, apparel and various athletic cushioning applications.

Exceptional Cushioning

- Continually rebounds to original form for custom comfort.
- Helps to evenly distribute pressure for added comfort.
- Support and stability.



PATENTED TECHNOLOGY GIVES YOU A DUAL PERFORMING MATERIAL
CUSTOMIZED CONTOURING FIT WITH ADDED SHOCK ABSORPTION
APPLICATIONS: AFTERMARKET INSOLES –COMFORT FOOTWEAR –
APPAREL AND VARIOUS ATHLETIC CUSHIONING APPLICATIONS – ETC.

Breathable and Flexible

- Patented technology combines two distinct PORON Materials into one without the use of costly adhesives or lamination.
- Continuous open-cell structure provides breathability and maintains integrity of the foam.

Maintains Performance

- Long-term comfort and performance for the life of your product.
- Excellent compression-set resistance that will not break down with repeated use.
- Microban® antimicrobial protection to help prevent the growth of stain-and odor-causing bacteria, mold and mildew.

Versatile to Suit Your Designs

- Standard offerings of 3mm and 4mm thickness available with PORON Slow Rebound Soft and PORON Performance combinations.
- Other custom PORON Dual Layer combinations available upon request.



Additional PORON Dual Layer variations may also be available upon special order. Rogers recommends textile or leather covering for additional comfort and wear strength. Please contact your Rogers Customer Service Representative for more details.

PORON® Dual Layer Cushioning - Typical Physical Properties

PROPERTY	TEST METHOD	PRODUCT	
FORMULATION		Slow Rebound Soft/Performance 5937	Slow Rebound Soft/Performance 5935
*DENSITY, lb. / ft ³	ASTM D3574-95 Test A	18	15
Specific Gravity		0.29	0.24
Tolerance, %		± 10	
*STANDARD THICKNESS		3mm	4mm
Tolerance, %		± 10	
STANDARD COLOR		Slow Rebound - SRS Formulation - Salmon (55) Performance - F Formulation - Royal Blue (63)	
AIR PERMEABILITY	Gurley Densometer	Open Cell - Breathable	
CUSHION FACTOR, Grade	SATRA TM159:1992	A	
*COMPRESSION SET, % max.	ASTM D3574 Test D @ 158°F (70°C)	10	
*COMPRESSION FORCE DEFLECTION, psi	0.2"/min. Strain Rate Force Measured @ 25% Deflection	5 - 14	4 - 10
kPa		34 - 96	28 - 69
HARDNESS, Durometer	Shore "O"	19	15
HYDROLYSIS RESISTANCE	ASTM D3574 Test J / Test D after autoclaved 5 hrs @ 250°F (121°C)	Good Resistance	
Compression Set, % Max		5	
RESILIENCE, Shore Instrument Resiliometer, avg (Ball Rebound Tester)	ASTM D 2632-96, Vertical Rebound	9	9
WATER VAPOR TRANSFER, Typical g/ft ² /24hrs (g/m ² /24hrs)	Based on ASTM E96-00	>37 (400)	
WATER ABSORPTION, % Wt Gain	Based on ASTM D570	< 30	
ANTIMICROBIAL, Fungal Resistance	ASTM G21	Does not promote fungal growth	
SKIN CONTACT	Primary Skin Irritation - FHSA	Pass	
TEAR STRENGTH, pli, min.	ASTM D624 Die C	8	7
kN/m		1.4	1.2
*TENSILE ELONGATION, % min.	ASTM D3574 Test E	100	
*TENSILE STRENGTH, psi, min.	ASTM D3574 Test E	80	60
kPa		551	414
TEMPERATURE RESISTANCE, max Recommended Constant Use	ASTM D746-98	70°C (158°F)	
CHEMICAL RESISTANCE		PORON Urethanes are unaffected by mild organic acids and bases. They show modest swelling with oils and greases and other linear hydrocarbons. Strong polar solvents will greatly swell PORON Urethanes. In most cases, physical properties recover to a great extent as the solvents evaporate.	
ANTIMICROBIAL PROTECTION	AATCC TM90 JIS Z 2801 AATCC TM30(iii)	PASS	

Notes: 1. All metric conversions are approximate. 2. Additional technical services are available. 3. Information listed based on typical physical properties. 4. *Standard testing property; Certificate of Compliance available per lot.