

## Product Information

# ROHACELL® SL

The trend towards lighter, better performing and more robust equipment for many sports remains unbroken. The manufacturing process to create these innovative new products must continue to be cost efficient and reliable.

In many cases, these demanding requirements call for fiber-reinforced plastic (FRP) sandwich construction to deliver the ideal solution. Whether the goal is excellent bending stiffness and strength, stabilization of very thin FRP sheets against external forces, or generating complex 3-dimensional geometries with minimized effort – a **ROHACELL®** sandwich can do the trick.

### STRENGTH AND DURABILITY

**ROHACELL® SL** boasts outstanding mechanical strength, especially under tensile load, and a high tenacity. These attributes make it a great choice for

applications with substantial dynamic mechanical loads, often found in sports and leisure equipment.

### ROHACELL® HELPS YOU SAVE WEIGHT

The fine cell size minimizes surface resin absorption while maintaining a strong connection to the face sheet. At the same time, the closed cell structure keeps the resin where you want it – in the interface.

### FAST AND EFFICIENT PROCESSING

Excellent temperature stability facilitates processing at up to 180 °C (356 °F) with all common processes like vacuum infusion and resin transfer molding, pre-preg autoclaving, as well as hand lay-up. High curing temperatures allow for reduced cycle times and excellent laminate properties. **ROHACELL® SL** is easy to shape by routing and thermoforming.

Property	Test Method	Unit	ROHACELL® 71 SL	ROHACELL® 110 SL	ROHACELL® 200 SL
Density	*	kg/m <sup>3</sup> lbs/ft <sup>3</sup>	75 ± 15 4.68 ± 0.94	110 ± 21 6.87 ± 1.31	205 ± 35 12.8 ± 2.18
Compressive Strength	ISO 844	MPa psi	1.5 218	3.0 435	9.6 1,390
Compressive Modulus	ISO 844	MPa psi	76 11,000	123 17,800	306 44,400
Tensile Strength	ISO 527-2	MPa psi	3.7 537	6.0 870	11.7 1,700
Tensile Modulus	ISO 527-2	MPa psi	120 17,400	202 29,300	371 53,800
Elongation at Break	ISO 527-2	%	4.0	4.7	6.3
Shear Strength	DIN 53294	MPa psi	1.4 203	2.3 334	4.8 696
Shear Modulus	DIN 53294	MPa psi	33 4,790	58 8,410	123 17,800
Maximum Shear Strain	DIN 53294	%	7.8	7.8	7.8
Coefficient of Thermal Expansion		1/K*10E-5	3.85	N/A	N/A

Technical data values presented are typical for nominal density, subject to normal manufacturing variations. All ROHACELL® products are closed-cell rigid foams based on polymethacrylimide (PMI) chemistry and contain no CFC's. \* Density values are valid for full-size sheets with a minimum thickness of 10 mm (0.39 inch) only. Other density ranges are available upon request.

**FOR MORE INFORMATION**

If you have questions or would like to discuss using **ROHACELL® SL** in your application, we encourage you to talk with your local ROHACELL® representative.

Visit [www.rohacell.com](http://www.rohacell.com) to locate and directly connect with the contact in your region, by phone or email.

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