Product Information

ROHACELL® SL

The trend continues toward designing lightweight, better performing products. The manufacturing process to create innovative new products and their components must be cost efficient and reliable.

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

STRENGTH AND DURABILITY

ROHACELL® SL foam cores boast 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.

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 up to 180 °C (356 °F) for **ROHACELL® SL** 71 or **ROHACELL® SL** 110, and up to 170 °C (338 °F) for **ROHACELL® SL** 200, with all common processes like vacuum infusion and resin transfer molding, pre-preg autoclaving, hand lay-up, and compression molding. High curing temperatures allow for reduced cycle times and excellent laminate properties.

ROHACELL® SL is easy to shape by routing or thermoforming.

Property	Test Method*	Unit	ROHACELL® 71 SL	ROHACELL® 110 SL	ROHACELL® 200 SL
Density**	ISO 845 ASTM D 1622	kg/m³ lbs/ft³	75 ± 15 4.68 ± 0.94	110 ± 21 6.87 ± 1.31	205 ± 35 12.8 ± 2.18
Compressive Strength	ISO 844 ASTM D 1621	MPa psi	1.5 218	3.0 435	9.6 1,390
Compressive Modulus	ISO 844 ASTM D 1621	MPa psi	76 11,000	150 21,755	370 53,663
Tensile Strength	ISO 527-2 ASTM D 638	MPa psi	3.7 537	6.0 870	10,4 1,450
Tensile Modulus	ISO 527-2 ASTM D 638	MPa psi	120 17,400	202 29,300	371 53,800
Elongation at Break	ISO 527-2 ASTM D 638	%	4.0	4.7	6.3
Shear Strength	DIN 53294 ASTM C 273	MPa psi	1.4 203	2.3 334	4.8 696
Shear Modulus	DIN 53294 ASTM C 273	MPa psi	33 4,790	58 8,410	123 17,800
Maximum Shear Strain	DIN 53294 ASTM C 273	%	7.8	7.8	7.8
Coefficient of Thermal Expansion		1/K*10E-5	3.85	N/A	N/A

Technical data values presented above are typical for nominal density, subject to normal manufacturing variations. *Data values are based on ISO & DIN standard test methods, however ASTM values can be confirmed upon request. 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 to locate and directly connect with the contact in your region, by phone or email.

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