

## Product Information

# ROHACELL® S

### SELF-EXTINGUISHING FOAM

ROHACELL® S is closed-cell rigid foam based on polymethacrylimide (PMI) chemistry that is completely free of CFC's. This rigid foam is self-extinguishing and particularly suitable for applications in rail vehicles and watercraft, as well as use in the aerospace industry.

### WEIGHT SAVINGS

When building composite sandwich components, lightweight ROHACELL® S has a closed cell structure that ensures the resin stays exactly where you want it - in the interface. This eliminates excess and unnecessary resin that adds undesirable weight to the finished part.

### PROCESSING AND PRODUCTION

ROHACELL® S foam is suitable for both prepreg processing and vacuum infusion at temperatures up to 130 °C (266 °F) and pressures up to 0.35 MPa (50 psi). Curing method options include autoclave, RTM, VARTM and press.

Using a ROHACELL® core makes it possible to produce sandwich components in a single step (co-curing), resulting in reduced overall production time.

### THERMOFORMING AND SHAPING

ROHACELL® S can be easily thermoformed or CNC machined to meet customer requirements. High precision, pre-shaped and ready-to-use foam cores in complex or simple geometries can also be supplied by the ROHACELL® Shapes Department.

Property	Test Method*	Unit	ROHACELL® 51 S	ROHACELL® 71 S	ROHACELL® 110 S
Density**	ISO 845 ASTM D 1622	kg/m <sup>3</sup> lbs/ft <sup>3</sup>	52 ± 12 3.25 ± 0.75	75 ± 15 4.68 ± 0.94	110 ± 21 6.87 ± 1.31
Compressive Strength	ISO 844 ASTM D 1621	MPa psi	0.7 101	1.5 217	2.8 406
Tensile Strength	ISO 527-2 ASTM D 638	MPa psi	1.1 159	1.9 275	3.2 464
Tensile Modulus	ISO 527-2 ASTM D 638	MPa psi	50 7,250	90 13,050	150 21,750
Elongation at Break	ISO 527-2 ASTM D 638	%	3.5	3.5	3.5
Shear Strength	DIN 53294 ASTM C 273	MPa psi	0.6 87	1.2 174	2.2 319
Shear Modulus	DIN 53294 ASTM C 273	MPa psi	20 2,900	34 4,930	55 7,975

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.

## SPECIFICATION COMPLIANCE

ROHACELL® S can be supplied with test certificates confirming compliance with multiple specifications, including:

- FAR 25.853 (a)(1)(i) AITM 2.0002 Small Burner Test vertical (60s)
- FAR 25.853 (a)(1)(ii) AITM 2.0002 Small Burner Test vertical (12s)
- FAR 25.853 (a)(1)(iv) AITM 2.0003 Small Burner Test horizontal (15s)
- FAR 25.853 (a)(1)(v) AITM 2.0003 Small Burner Test horizontal (15s)
- FAR 25.853 (d) AITM 2.0007 Determination of the specific optical smoke density of aircraft materials

## FOR MORE INFORMATION

If you have questions or would like to discuss using ROHACELL® S 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.

### Disclaimer

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