

## 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.

### 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
- AITM 3.0005 Determination of gas components of smoke generated by aircraft interior materials

## ROHACELL® S properties

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

Technical data of our products are typical values for the nominal density.

\* 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.

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