

Product Information

ROHACELL® S

Polymethacrylimide Foam, Self-Extinguishing

ROHACELL® S is a closed-cell rigid foam based on polymethacrylimide (PMI) chemistry, which does not contain any CFC's.

ROHACELL® S rigid foam is self-extinguishing and particularly suitable for applications in rail vehicle and watercraft construction, as well as in the aeronautic industry.

ROHACELL® S can be processed using prepregs and all common vacuum infusion methods, RTM, and VARTM; pressures of up to 0.35 MPa are permissible at a temperature of 130°C.

The thermo-formability of ROHACELL® provides a tremendous manufacturing advantage.

ROHACELL® S is also easy to shape by machining.

If required, ROHACELL® S can be supplied with a test certificate attesting compliance with various specifications:

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

For further information, please contact our experts by phone +49 6151 18 1005 or e-mail rohacell@evonik.com

Properties of ROHACELL® S

Properties	Unit	ROHACELL® 51 S	ROHACELL® 71 S	ROHACELL® 110 S	Standard
Density	kg/m ³	52	75	110	ISO 845
	lbs./cu.ft.	3.25	4.68	6.87	ASTM D 1622
Compressive strength	MPa	0.7	1.5	2.8	ISO 844
	psi	101	217	406	ASTM D 1621
Tensile strength	MPa	1.1	1.9	3.2	ISO 527-2
	psi	159	275	464	ASTM D 638
Shear strength	MPa	0.6	1.2	2.2	DIN 53294
	psi	87	174	319	ASTM C 273
Elastic modulus	MPa	50	90	150	ISO 527-2
	psi	7,250	13,050	21,750	ASTM D 638
Shear modulus	MPa	20	34	55	DIN 53294
	psi	2,900	4,930	7,975	ASTM C 273
Strain at break	%	3.5	3.5	3.5	ISO 527-2
					ASTM D 638
Heat distortion temperature	°C	190	190	190	DIN 53424
	°F	374	374	374	

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

Fire behavior of ROHACELL® S

Properties	ROHACELL® 51 S	ROHACELL® 71 S	ROHACELL® 110 S	Standard
Fire behavior	Self-extinguishing			ASTM D 1692-59
	M1/F2	M2/F3		AFNOR NF 16-101
	23.8%	23.2%		ASTM D 2863 (LOI)
	V-2			UL 94

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