

Product Information

ROHACELL® A-F

ROHACELL® A-F structural foam is a closed-cell rigid foam based on polymethacrylimide (PMI) chemistry and contains no CFC's.

ROHACELL® A-F is a further development of our base grade "A" with focus on finer cells. It is the standard product in our range of rigid foam products and is suitable for a wide variety of several aerospace applications.

The "F" in **ROHACELL® A-F** indicates the foam's fine cell structure that will take up only minimal resin at the surface where the cells have been cut open. Less resin take-up during part processing means less final part weight and overall cost.

PROCESSING AND PRODUCTION

ROHACELL® A-F is particularly suitable for prepreg processing, but can also be used in resin infusion and RTM processes up to temperatures of 130 °C (266 °F) and pressures of 1.0 MPa (44 psi).

THERMOFORMING AND SHAPING

The thermoformability of **ROHACELL®** provides tremendous manufacturing advantages and **ROHACELL® A-F** is easy to shape by machining.

High precision, pre-shaped and ready-to-use foam cores in complex or simple geometries can be supplied by the **ROHACELL®** Shapes Department.

Property	Test Method	Unit	ROHACELL® 31 A-F	ROHACELL® 51 A-F	ROHACELL® 71 A-F	ROHACELL® 110 A-F
Density	ISO 845 ASTM D 1622	kg/m³ lbs/ft³	32 ± 7 2.00 ± 0.44	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	0.4 58	0.9 130	1.5 217	3.0 435
Compressive Modulus		MPa psi	17 2,470	43 6,240	73 10,600	120 17,400
Tensile Strength	ISO 527-2 ASTM D 638	MPa psi	1.0 145	1.9 275	2.8 406	3.5 507
Tensile Modulus		MPa psi	36 5,220	70 10,150	92 13,340	160 23,200
Elongation at break		%	3.5	3.5	3.5	3.5
Shear Strength	DIN 53294 ASTM C 273	MPa psi	0.4 58	0.8 116	1.3 188	2.4 348
Shear Modulus		MPa psi	13 1,885	19 2,755	29 4,205	50 7,250
Coefficient of Thermal Expansion		1 / K*10E-5	5.03	4.71	3.81	3.04

Technical data values presented above are typical for nominal density, subject to normal manufacturing variations.

FOR MORE INFORMATION

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

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