

ROHACELL® IG-F

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

The "IG" in **ROHACELL® IG-F** stands for "Industrial grade." It is the standard product in our range of rigid foam products and is suitable for a wide variety of automotive, medical and industrial applications.

The "F" in **ROHACELL® IG-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® IG-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 0.3 MPa (44 psi).

THERMOFORMING AND SHAPING

The thermoformability of ROHACELL® provides tremendous manufacturing advantages and **ROHACELL® IG-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 IG-F	ROHACELL® 51 IG-F	ROHACELL® 71 IG-F	ROHACELL® 110 IG-F
Density**	ISO 845 ASTM D 1622	kg/m ³ lbs/ft ³	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	ISO 844 ASTM D 1621	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	ISO 527-2 ASTM D 638	MPa psi	36 5,220	70 10,150	92 13,340	160 23,200
Shear Strength	DIN 53294 ASTM C 273	MPa psi	0.4 58	0.8 116	1.3 188	2.4 348
Shear Modulus	DIN 53294 ASTM C 273	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. *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.