

ROHACELL® WF



Structural foam for the most demanding manufacturing process conditions

ROHACELL® WF foam core has been specifically designed for use in aerospace applications.

Based on polymethacrylimide (PMI) chemistry, it is engineered to meet demanding requirements from aircraft manufacturers and has led to many specifications for more than 30 years, including MIL, CMS and others.

Processing and production

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

ROHACELL® WF can take curing temperatures up to 130°C (266°F) and pressures up to 0.7 MPa (102 psi).

After a heat treatment, ROHACELL® WF-HT can even be used at curing temperatures of 180°C (356°F) and at pressures of 0.7 MPa (102 psi).

ROHACELL® WF is highly suitable with autoclave technologies and vacuum infusion processes, including RTM and VARTM processes.

Weight savings

When building composite sandwich components, lightweight ROHACELL® WF 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.

Thermoforming and shaping

ROHACELL® WF can be easily thermoformed or CNC machined to meet customer requirements, bringing tremendous manufacturing advantages.

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

ROHACELL® WF properties

Property	Standard	Unit	ROHACELL® 51 WF	ROHACELL® 71 WF	ROHACELL® 110 WF	ROHACELL® 200 WF	ROHACELL® 300 WF
Density	ISO 845	kg/m ³	52	75	110	205	300
	ASTM D 1622	lbs/ft ³	3.25	4.68	6.87	12.81	18.7
Compressive Strength	ISO 844	MPa	0.8	1.7	3.6	9.0	17.8
	ASTM D 1621	psi	116	246	522	1305	2580
Tensile Strength	ISO 527-2	MPa	1.6	2.2	3.7	6.8	12.0
	ASTM D 638	psi	232	319	536	986	1740
Elastic Modulus	ISO 527-2	MPa	75	105	180	350	578
	ASTM D 638	psi	10.9	15.2	26.1	50.8	83.8
Shear Strength	DIN 53294	MPa	0.8	1.3	2.4	5.0	8.3
	ASTM C 273	psi	116	188	348	725	1200
Shear Modulus	DIN 53294	MPa	24	42	70	150	364
	ASTM C 273	psi	3.5	6.1	10.2	21.8	52.8
Strain at break	ISO 527-2	%	3.0	3.0	3.0	3.5	2.8
	ASTM D 638						
Coefficient of Thermal Expansion		1/K*10E-5	3.11	3.09	3.07	3.76	3.50

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

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