



ROHACELL® WF

ROHACELL® WF: Aerospace, higher heat distortion resistance

ROHACELL® WF (= grade with increased heat distortion resistance) is a closed-cell rigid foam plastic based on PMI (polymethacrylimide) which does not contain any CFCs.

ROHACELL® WF serves as a core material in advanced sandwich components used in aircraft and spacecraft construction.

Curing temperature up to 180C (356F). Curing pressure up to 0.70 MPa (100 psi).

Sandwich components using ROHACELL® WF as core material can be realized in a single work step (= cocuring). The structural components can be manufactured in an autoclave and by means of RTM. ROHACELL® WF is easy to shape. Thermoformability is another advantage of the core material.

ROHACELL® IG
ROHACELL® A
ROHACELL® WF

Chemical Resistance

Fire rating

Machining

Bonding

Sales Range

Properties

Safety data sheet

ROHACELL® XT

ROHACELL® FX

ROHACELL® LS

ROHACELL® HF

**Manufacturing of PMI
 foam**

Technical Data Heat distortion temperature 205°C, densities from 52 to 200 kg/m³, compressive strength 0.8 to 15.8 MPa, processing up to 180°C/0.7 MPa

Physical Forms Sheets and blocks in thicknesses of 4 to 70 mm (other thicknesses on request), sizes up to 2.500 x 1.250 mm



Chemical Resistance

One of the outstanding features of ROHACELL® WF is its resistance to organic solvents. This includes benzene, xylene and monostyrene as well as solvents for paints and adhesives, fuel constituents and most technical solvents. ROHACELL® WF does not withstand alkaline media, however.

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Properties	Unit	ROHACELL® 51 WF	ROHACELL® 71 WF	ROHACELL® 110 WF	ROHACELL® 200 WF	ROHACELL® 300 WF	Standard
Density	kg/m ³ lbs./cu.ft.	52 3.25	75 4.68	110 6.87	205 12.81	300 18.75	DIN 53420/ISO 845 ASTM D 1622
Compressive strength	MPa psi	0.8 116	1.7 246	3.6 522	9.0 1,305	15.7 2,276	DIN 53421/ISO 844 ASTM D 1621
Tensile strength	MPa psi	1.6 232	2.2 319	3.7 536	6.8 986	10.3 1,493	DIN 53455/ISO 527-2 ASTM D 638
Flexural strength	MPa psi	1.6 232	2.9 420	5.2 754	12.0 1,740		DIN 53423/ISO 1209 ASTM D 790
Shear strength	MPa psi	0.8 116	1.3 188	2.4 348	5.0 725	7.8 1,131	DIN 53294 ASTM C 273
Elastic modulus	MPa psi	75 10,875	105 15,225	180 26,100	350 50,750	367 53,215	ISO 527-2 ASTM D 638
Shear modulus	MPa psi	24 3,480	42 6,090	70 10,170	150 21,750	293 42,485	DIN 53294 ASTM C 273
Elongation at break	%	3,0	3.0	3.0	3.5	3.5	DIN 53455/ISO 527-2 ASTM D 638
Heat distortion resistance	°C °F	205 401	200 392	200 392	200 392	190 374	DIN 53424



Sales Range

Type	Unit	Size	Sheet Thickness
ROHACELL® 51 WF	mm inch	2500 x 1250 / 2000 x 1100 98.4 x 49.2 / 78.7 x 43.3	4 to 75 0.16 to 2.96
ROHACELL® 71 WF	mm inch	2500 x 1250 / 2000 x 1100 98.3 x 49.2 / 78.7 x 43.3	4 to 60 0.16 to 2.36
ROHACELL® 110 WF	mm inch	2160 x 1100 / 2000 x 1100 85 x 43.3 / 78.7 x 43.3	4 to 50 0.16 to 1.97
ROHACELL® 200 WF	mm inch	1900 x 900 74.8 x 35.4	4 to 32 0.24 to 1.26
ROHACELL® 300 WF	mm inch	1750 x 1100 68.9 x 43.3	3.8 1.5

Thickness tolerance +/- 0.5 mm (0.02 inch), other sales ranges on request.

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