

Divinycell H Grade can be used for the vast majority of composite applications where both hand laminating and closed moulding processes such as infusion are employed. With the upgraded H Grade, major improvements have been made in all critical performance areas. Strength properties have risen by up to 15%. In addition elongation to break has risen dramatically by up to 65% and the ductility has also been markedly improved. Both the thermal and dimensional stability have also seen significant improvements. Divinycell H can now be processed at up to 90°C with minimal dimensional changes. The chemical resistance has also been enhanced. Another major improvement is a reduction in the core's cell size. Divinycell H is available in a very wide range of densities as standard sheets or fabricated to customers specification as kits.

Technical Data for Divinycell H Grade

Property	Method	Unit	H35	H45	H60	H80	H100	H130	H160	H200	H250
Nominal Density ¹⁾	ISO 845	Kg/m ³	38	48	60	80	100	130	160	200	250
Compressive Strength ²⁾	ASTM D 1621	MPa	0.45	0.6	0.9	1.4	2.0	3.0	3.4	4.8	6.2
Compressive Modulus ²⁾	ASTM D 1621	MPa	40	50	70	90	135	170	200	240	300
Tensile Strength ²⁾	ASTM D 1623	MPa	1.0	1.4	1.8	2.5	3.5	4.8	5.4	7.1	9.2
Tensile Modulus ²⁾	ASTM D 1623	MPa	49	55	75	95	130	175	205	250	320
Shear Strength	ASTM C 273	MPa	0.4	0.56	0.76	1.15	1.6	2.2	2.6	3.5	4.5
Shear Modulus	ASTM C 273	MPa	12	15	20	27	35	50	73	85	104
Shear Strain	ASTM C 273	%	9	12	20	30	40	40	40	40	40
1) Typical density variation ± 10%.											
2) Perpendicular to the plane. All values measured at +23°C.											

Continuous operating temperature is –200°C to +70°C. The foam can be used in sandwich structures, for outdoor exposure, with external skin temperatures up to +85°C. Operating conditions must be taken into consideration for the very low and high temperatures. Maximum processing temperature is dependent on time, pressure and process conditions. Normally Divinycell H can be processed at up to +90°C with minor dimensional changes. Please contact DIAB for advice before use.

Coefficient of linear expansion: approx. $40 \times 10^{-6}/^{\circ}\text{C}$

