

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 (+194°F) 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	H 45	H 60	H 80	H 100	H 130	H 200	H 250
Nominal Density <sup>1)</sup>	ISO 845	kg/m <sup>3</sup>	48	60	80	100	130	200	250
		lb/ft <sup>3</sup>	3.0	3.8	5.0	6.3	8.1	12.5	15.6
Compressive Strength <sup>2)</sup>	ASTM D 1621	MPa	0.6	0.9	1.4	2.0	3.0	4.8	6.2
		psi	87	130	203	290	435	696	899
Compressive Modulus <sup>2)</sup>	ASTM D1621	MPa	50	70	90	135	170	240	300
		psi	7,250	10,150	13,050	19,575	24,650	34,800	43,500
Tensile Strength <sup>2)</sup>	ASTM D 1623	MPa	1.4	1.8	2.5	3.5	4.8	7.1	9.2
		psi	203	261	363	508	696	1,030	1,334
Tensile Modulus <sup>2)</sup>	ASTM D 1623	MPa	55	75	95	130	175	250	320
		psi	7,975	10,875	13,775	18,850	25,375	36,250	46,400
Shear Strength	ASTM C 273	MPa	0.56	0.76	1.15	1.6	2.2	3.5	4.5
		psi	81	110	167	232	319	508	653
Shear Modulus	ASTM C 273	MPa	15	20	27	35	50	85	104
		psi	2,175	2,900	3,915	5,075	7,250	12,325	15,080
Shear Strain	ASTM C 273	%	12	20	30	40	40	40	40

1) Typical density variation ± 10%.

2) Perpendicular to the plane. All values measured at +23°C (73.4°F).

Continuous operating temperature is –200°C to +70°C (–325°F to +160°F). The foam can be used in sandwich structures, for outdoor exposure, with external skin temperatures up to +85°C (+185°F). 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 (+194°F) with minor dimensional changes. Please contact DIAB for advice before use.

Coefficient of linear expansion: approx. 22.2 x 10<sup>-6</sup>/°F (40 x 10<sup>-6</sup>/°C)

