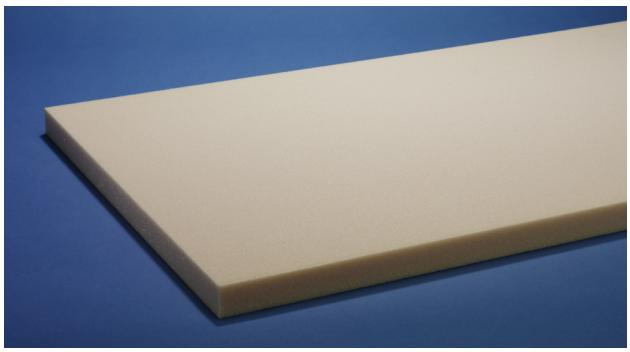

TECHNICAL DATA

Divinycell HT

THE HIGH PERFORMANCE SANDWICH CORE

Divinycell HT is an aerospace core available with comprehensive quality documentation and traceability.
Diviniycell HT foam is suitable for pre-preg processing (typical +120°C) as well as wet resin systems and infusion. Furthermore Divinycell HT is also self-extinguishing according to FAR 25.853.
Divinycell HT eliminates edge potting and sweep and sand.

MECHANICAL PROPERTIES

Property	Test Procedure	Unit		HT61	HT81	HT101	HT131	HT251
Compressive Strength[1]	ASTM D 1621	MPa	Nominal	1.0	1.5	2.0	3.0	7.2
			Minimum	0.85	1.2	1.65	2.4	6.1
Compressive Modulus[1]	ASTM D 1621-B-73	MPa	Nominal	80	105	135	170	400
			Minimum	58	90	115	145	350
Tensile Strength[1]	ASTM D 1623	MPa	Nominal	1.8	2.8	3.5	4.8	9.2
			Minimum	1.5	2.2	2.5	3.5	8.0
Shear Strength	ASTM C 273	MPa	Nominal	0.9	1.25	1.6	2.2	4.5
			Minimum	0.75	1.0	1.4	1.9	3.9
Shear Modulus	ASTM C273	MPa	Nominal	20	28	35	50	97
			Minimum	18	22	28	40	81
Shear Strain	ASTM C273	%	Nominal	25	38	40	40	45
Density	ASTM D 1622	kg/m³	Nominal	65	80	100	130	250

All values measured at +23°C
1. Properties measured perpendicular to the plane

Nominal value is an average value of a mechanical property at a nominal density
Minimum value is a minimum guaranteed mechanical property a material has independently of density

PRODUCT CHARACTERISTICS

- High dimensional stability
- High strength and stiffness to weight ratio
- Good temperature resistance
- Low water absorption
- Non biodegradable
- Easily machined and processed
- Excellent chemical resistance
- Acoustic and thermal insulation
- Low resin uptake
- Consistant and homogenous

APPLICATION AREAS

Primary structures, radomes, control surfaces and interior components.

Customers	Specifications
Bell Helicopter Textron	299-947-304
Boeing	DMS2265
Boeing Rotorcraft	HMS-17-1205
Cessna Aircraft Company	CMNP060
Cirrus Design	GEK0501
Gulfstream	GAC101B
MD Helicopter	MDM17-1205
United Launch Alliance	5-06172

TECHNICAL CHARACTERISTICS

Characteristics[1]	Unit	Test method	HT61	HT81	HT101	HT131	HT251
Coeff, linear heat expansion	x10^{-6}/°C	ISO 4897	40	40	40	40	40
Heat Distortion Temperature	°C	DIN 53424	+125	+125	+125	+125	+125
Dissipation Factor	-	ASTM D 2520	0.0003	0.0005	0.0006	0.0009	0.0019
Dielectric Constant	-	ASTM D 2520	1.07	1.09	1.11	1.15	1.29
Thermal Conductivity at 10°C	W/(m-K)	ASTM C 518	0.035	0.037	0.037	0.038	0.048
Continuous temp range	°C	-	-200 to +80	-200 to +80	-200 to +80	-200 to +80	-200 to +80
Max process temp	°C	-	+145	+145	+145	+145	+145
Poissons ratio average (X,Y)	-	ASTM 638	-	0.35	-	-	-
Vertical Burn, 60 sec	-	FAR 25.853	Pass	Pass	Pass	Pass	Pass

1. Typical values

Normally Divinycell HT can be processed at up to +145°C with minor dimensional changes. The foam can be used in sandwich structures, for outdoor exposure, with external skin temperatures up to +100°C.
Maximum processing temperature is dependent on time, pressure and process conditions. To confirm that Divinycell HP is compatible with users particular processing parameters, and for optimal design of applications used in high operating temperatures in combination with continuous load, please contact Diab Technical Services.

DIMENSIONS

Format		Unit	HT61	HT81	HT101	HT131	HT251
Plain sheets	Length	mm	2440	2070	2135	1935	1615
	Width	mm	1220	1020	1045	945	775

Tolerances	Unit	Length	Width	Thickness
Plain sheets	mm	-3/+6	-/+3	-/+ 0.25

STORAGE OF PRODUCT

The shelf life of Divinycell is unlimited when it is stored in its original package on ambient indoor storage conditions and protected against UV exposure.

Disclaimer:
This data sheet may be subject to revision and changes due to development and changes of the material. The data is derived from tests and experience. If not stated as minimum values, the data is average data and should be treated as such. Calculations should be verified by actual tests. The data is furnished without liability for the company and does not constitute a warranty or representation in respect of the material or its use. The company reserves the right to release new data sheets in replacement.

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