



TECHNICAL DATA

PVC Foam | Divinycell HT

PVC core with comprehensive quality documentation

Divinycell HT is a structural core specifically developed for structural aerospace applications. It is available with comprehensive quality documentation and traceability, making it ideal for industries with stringent certification requirements.

Suitable for prepreg processing (typically +120 °C), wet resin systems, and infusion, it delivers consistent performance under demanding conditions. The material is self-extinguishing according to FAR 25.853 and eliminates the need for edge potting, sweep, and sand.

Mechanical properties

Property	Test Procedure	Unit		HT61	HT81	HT101	HT131	HT251
Compressive Strength ¹	ASTM D1621	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 D1621-B-73	MPa	Nominal	80	105	135	170	400
			Minimum	58	90	115	145	350
Tensile Strength ¹	ASTM D1623	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 C273	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 D1622	kg/m ³	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 nominal density.

Minimum value is a minimum guaranteed mechanical property a material has independently of density.

Product characteristics

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

Typical application areas



Aerospace

Customers

Bell Helicopter Textron
Boeing
Boeing Rotorcraft
Cessna Aircraft Company
Cirrus Design
Gulfstream
MD Helicopter
United Launch Alliance

Specifications

299-947-304
DMS2265
HMS-17-1205
CMNP060
GEK0501
GAC101B
MDM17-1205
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	-	ASTMD 2520	0.0003	0.0005	0.0006	0.0009	0.0019
Dielectric Constant	-	ASTMD 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.

Maximum processing temperature is dependent on time, pressure and process conditions. To confirm that Divinycell HT 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:

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Datasheet Diab Divinycell HT rev17 SI May 2026

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