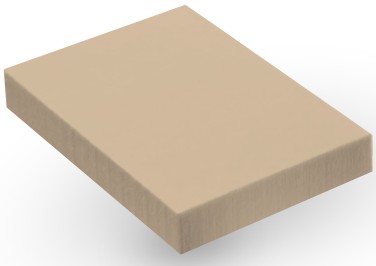

TECHNICAL DATA

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 D 1621	psi	Nominal	145	217	290	435	1,044
			Minimum	123	174	239	348	885
Compressive Modulus[1]	ASTM D 1621-B-73	psi	Nominal	11,600	15,225	19,575	24,650	58,015
			Minimum	8,412	13,050	16,675	21,025	50,763
Tensile Strength[1]	ASTM D 1623	psi	Nominal	261	406	508	696	1,334
			Minimum	218	319	362	508	1,160
Shear Strength	ASTM C 273	psi	Nominal	131	181	232	319	653
			Minimum	109	145	203	276	566
Shear Modulus	ASTM C273	psi	Nominal	2,900	4,060	5,075	7,250	14,069
			Minimum	2,611	3,190	4,060	5,800	11,748
Shear Strain	ASTM C273	%	Nominal	25	38	40	40	45
			Minimum	20	25	25	30	30
Density	ASTM D 1622	lb/ft³	Nominal	4.1	5.0	6.2	8.1	15.6

All values measured at +73.4°F

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 characteristiscs

- 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 characteristiscs

Characteristics[1]	Unit	Test method	HT61	HT81	HT101	HT131	HT251
Coeff, linear heat expansion	x10^{-6}/°F	ISO 4897	22.2	22.2	22.2	22.2	22.2
Heat Distortion Temperature	°F	DIN 53424	+257	+257	+257	+257	+257
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[2]	Btu x in / (ft^2 x h x °F)	ASTM C 518	0.243	0.257	0.257	0.264	0.333
Continuous temp range	°F	-	-325 to +176	-325 to +176	-325 to +176	-325 to +176	-325 to +176
Max process temp	°F	-	+293	+293	+293	+293	+293
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 +293°F 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	inch	96.06	81.50	84.06	76.18	63.58
	Width	inch	48.03	40.16	41.14	37.20	30.51

Tolerances	Unit	Length	Width	Thickness
Plain sheets	Inch	-0.012/0.24	-/+0.12	-/+ 0.01

1. Thickness tolerance of -/+ 0.0079 inch is available upon request.

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.

For more info visit:
diabgroup.com/contact