



TECHNICAL DATA

PET Foam | Divinycell PL

High performance recyclable PET sandwich core

Divinycell PL is a fully recyclable PET-based core material, developed to optimize PET-cored composite structures with high performance and sustainability. Made from post-industrial PET, it combines high shear strength with low resin absorption, reducing both component weight and overall cost – without the need for surface sealing treatment.

With excellent shear strain and high temperature performance, Divinycell PL is compatible with a wide range of processing methods, including vacuum infusion, prepreg, and hot-press moulding. The high-strength Divinycell PL230 variant is particularly suited for demanding structural applications.

Mechanical properties

Property	Test Procedure ¹	Unit		PL100	PL105	PL150	PL200	PL230
Compressive Strength ²	ASTMD 1621	PSI	Nominal	189	218	363	551	653
			Minimum	145	189	319	464	537
Compressive Modulus ²	ASTMD1621-B-73	PSI	Nominal	14,505	16,245	23,930	33,360	35,535
			Minimum	10,880	12,330	18,855	27,555	30,455
Tensile Strength ²	ASTMD 1623	PSI	Nominal	348	348	421	493	522
			Minimum	276	276	334	406	464
Tensile Modulus ²	ASTMD 1623	PSI	Nominal	14,505	15,955	25,380	33,360	39,160
			Minimum	11,600	13,050	18,855	26,105	31,910
Shear Strength ³	ISO 1922	PSI	Nominal	123	138	210	305	377
			Minimum	102	116	181	261	334
Shear Modulus ³	ISO 1922	PSI	Nominal	3,335	3,625	6,090	9,425	11,020
			Minimum	2,900	3,335	5,365	7,250	9,720
Shear Strength ⁴	ISO 1922	PSI	Nominal	116	123	196	290	363
			Minimum	94	109	181	247	319
Shear Modulus ⁴	ISO 1922	PSI	Nominal	3,045	3,335	5,220	7,975	9,575
			Minimum	2,465	2,755	4,640	6,815	8,410
Shear Strain ^{3,4}	ISO 1922	%	Nominal	20	20	15	10	10
Density	ISO 845	lb/ft ³	Nominal	6.2	6.5	9.4	13.1	14.4

1. All values measured at +73.4°F. Testing is done on foam with welding lines.

2. Properties measured perpendicular to the plane

3. Properties measured parallel to the welding lines, 1-3 direction

4. Shear properties measured perpendicular to weldlines, 2-3 direction

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

- Recyclable
- Based on post-industry recycled PET
- Low resin uptake
- Thermoformable
- Good chemical resistance
- Good shear strain
- Closed cell structure
- Allows for high processing temperatures

Typical application areas



Wind energy



Marine



Construction



Transportation



Other industries

Technical characteristics

Characteristics ¹	Unit	PL100	PL105	PL150	PL200	PL230	Test method
Density range	lb/ft ³	5.9-6.6	6.3-7.2	9.1-10.0	12.2-13.8	13.8-15.0	
Thermal conductivity ²	Btu x in/(ft ² x h x °F)	0.229	0.229	0.249	0.298	0.319	ASTM C177

1. Typical values are approximate
2. Thermal conductivity measured at +77°F

Maximum processing temperature is dependent on time, pressure and process conditions. Therefore users are advised to contact Diab Technical Services to confirm that Divinycell PL is compatible with their particular processing parameters.

Dimensions

Format		Unit	PL100	PL105	PL150	PL200	PL230
Plain sheets	Length	inch	96.06	96.06	96.06	96.06	96.06
	Width	inch	48.03	48.03	48.03	48.03	48.03
GS sheet	Length	inch	48.03	48.03	48.03	48.03	48.03
	Width	inch	48.03	48.03	48.03	48.03	48.03
Colour			Beige	Beige	Beige	Beige	Beige

Other dimensions are available on request.

Tolerances	Unit	Length	Width	Thickness
Plain sheets	inch	-0/+0.39	-0/+0.24	+/-0.02

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.

Divinycell PL is type approved by:



Disclaimer:

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