

The high performance PET sandwich core

Divinycell P is based on PET, which makes it a recyclable, thermoplastic sandwich core material. Divinycell P is particularly ideal for public transportation, industrial and wind energy applications. The energy efficiency of a Divinycell P sandwich makes it ideal for transport applications such as interior panelling, floors and exterior panels for trams, buses and coaches. In the wind energy market the excellent properties and good processing characteristics means it can be used in both blades and nacelles. In the industrial/construction market, the good mechanical and FST properties of

Divinycell P allows it to be used for a wide variety of applications such as domes, architectural claddings and industrial housings. Divinycell P is compatible with most commonly used resin and manufacturing systems. With its high residual strength and good dimensional stability at elevated processing temperatures, it can be readily used with a wide variety of "industrial" medium temperature prepreg systems. It is easily thermoformed and used in pultrusion moulding.

Mechanical properties Divinycell® P - Imperial units

Property	Test Procedure	Unit	P60	P100	P150
Compressive Strength ¹	ASTM D 1621	psi	Nominal	218	334
			Minimum	160	290
Compressive Modulus ¹	ASTM D1621-B-73	psi	Nominal	14,504	22,046
			Minimum	8,702	16,679
Tensile Strength	ASTM D 1623	psi	Nominal	261	355
			Minimum	196	268
Shear Strength	ISO 1922	psi	Nominal	123	181
			Minimum	100	138
Shear Modulus	ISO 1922	psi	Nominal	4,061	5,802
			Minimum	3,191	5,221
Shear Elongation	ISO 1922	%	Nominal	12	7.5
			Minimum	3	3
Density	ISO 845	lb/ft ³	4.1	6.9	9.4

All values measured at +73,4°F. Testing is done on foam without welding lines.

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 temperature resistance
- Recyclable
- Thermoformable
- Good chemical resistance
- Very good FST properties

Divinycell P is type approved by:



Technical Characteristics

Technical characteristics Divinycell® P

Characteristics ¹	Unit	P60	P100	P150	Test method
Density variation	%	± 7	± 6	± 5	-
Thermal conductivity ²	Btu x in / (ft ² x h x °F)	0.229	0.229	TBD	ISO 4897
Fire Resistance class ³	-	S4 ST2 SR2	S4 ST2 SR2	S4 ST2 SR2	DIN 5510*
	-	M1 F1	M1 F1	M1 F1	AFNOR NF F 16-101*

1. Typical values are approximate
2. Thermal conductivity at +68°F
3. Measured at different thicknesses, contact Diab for more information

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

Physical characteristics

Format	Unit	P60	P100	P150
Plain sheets	Length	96.06	96.06	96.06
	Width	48.03	48.03	48.03
GS sheet	Length	48.03	48.03	48.03
	Width	48.03	48.03	48.03

Other dimensions are available on request.

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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Issued: Feb 2016 Doc No: P Feb 2016 rev26 IMP

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