

## The high performance PET sandwich core

Divinycell PX is based on PET, which makes it to a recyclable, thermoplastic sandwich core material. Divinycell PX provides excellent FST (fire, smoke & toxicity) properties, high temperature performance, very good fatigue properties, good mechanical characteristics and chemical resistance. It also offers excellent acoustic/thermal insulation properties and low water absorption. Divinycell PX is particularly ideal for public transportation and industrial applications.

The energy efficiency of a Divinycell PX sandwich makes it ideal for transport applications such as interior panelling, floors and exterior panels for trains, trams, buses and coaches. In the industrial/construction market, the good mechanical and FST properties of Divinycell PX allows it to be used for a wide variety of applications such as domes, architectural claddings and industrial housings.

### Mechanical properties Divinycell® PX

Property	Test Procedure	Unit		PX60	PX100	PX150
Compressive Strength <sup>1</sup>	ASTM D 1621	MPa	Nominal	0.2	0.8	1.4
Tensile Strength	ASTM D 1623	MPa	Nominal	0.54	1.3	1.5
Shear Strength	ISO 1922	MPa	Nominal	0.24	0.7	1.0
Shear Modulus	ISO 1922	MPa	Nominal	6.6	19	32
Shear Strain	ISO 1922	%	Nominal	9.5	8.5	8.5
Density	ISO 845	kg/m <sup>3</sup>	Nominal	65	110	150

All values measured at +23°C. 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

## Product Characteristics

- High temperature resistance
- Thermo formable
- Low water absorption
- Good chemical resistance
- Very good FST properties
- Recyclable
- Excellent thermal conductivity properties
- Consistent and homogeneous material

# Technical Characteristics

## Technical characteristics Divynycell® PX

Characteristics <sup>1</sup>	Unit	PX60	PX100	PX150	Test method
Density variation	%	± 7	± 6	± 5	-
Thermal conductivity <sup>2</sup>	W/(m·K)	0.027	0.030	TBD	ASTM C 518
Fire Resistance class <sup>3</sup>	-	S4 ST2 SR2	-	-	DIN 5510*
	-	-	M1 F1	-	AFNOR NF F 16-101*

1. Typical values are approximate
2. Thermal conductivity at +20°C
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 Divynycell PX is compatible with their particular processing parameters.

## Physical characteristics

Format		Unit	PX60	PX100	PX150
Plain sheets	Length	mm	2440	2440	2440
	Width	mm	1220	1220	1220
GS sheet	Length	mm	1220	1220	1220
	Width	mm	1220	1220	1220

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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