

The high performance PET sandwich core

Divinycell PY is Diab's newest addition to the PET family. All our PET materials are recyclable and are excellent thermoplastic sandwich core materials. The material is suitable for a variety of processes including infusion, prepreg and press bonding. Divinycell PY provides high shear strain and a very low resin consumption. The core material has been designed and developed to meet blade designs in an optimal manner.

Mechanical properties Divinycell® PY

Property	Test Procedure	Unit		PY105
Compressive Strength ¹	ASTM D 1621	MPa	Nominal	1.5
			Minimum	1.4
Compressive Modulus ¹	ASTM D1621-B-73	MPa	Nominal	112
			Minimum	85
Tensile Strength	ASTM C 297	MPa	Nominal	2.4
			Minimum	1.9
Tensile Modulus	ASTM C 297	MPa	Nominal	110
			Minimum	90
Shear Strength ²	ISO 1922	MPa	Nominal	1.1
			Minimum	0.8
Shear Modulus ²	ISO 1922	MPa	Nominal	25
			Minimum	23
Shear Strain ²	ISO 1922	%	Nominal	30
			Minimum	15
Density	ISO 845	kg/m ³	Nominal	105
			Minimum	100

All values measured at +23°C. Testing is done on foam with welding lines.

1. Properties measured perpendicular to the plane
2. Properties measured parallel to the welding lines

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

- Consistent quality
- Recyclable
- Thermoformable
- Good chemical resistance
- Excellent shear strain
- Very low resin uptake
- Allows for high processing temperatures
- Optimal fatigue properties

Divinycell PY is type approved by:



Technical Characteristics

Technical characteristics Divynycell® PY

Characteristics ¹	Unit	PY105	Test method
Density variation	%	± 5	-
Thermal conductivity ²	W/(m-K)	0.034	ASTM C177

1. Typical values are approximate
2. Thermal conductivity measured at +10°C

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

Physical characteristics Divynycell® PY

Format		Unit	PY105
Plain sheets	Length	mm	2440
	Width	mm	1220
GS sheet	Length	mm	1220
	Width	mm	1220
Colour			Yellow

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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