



NEW

TECHNICAL DATA

Divinycell PY100

HIGH-PERFORMANCE PET SANDWICH CORE MATERIAL WITH ULTRA-LOW RESIN ABSORPTION

Divinycell PY is a new addition to the Diab PET sandwich core materials family. Divinycell PY is fully recyclable and has been developed with the aim of optimising PET cored composite structures. Divinycell PY provides superior shear strength and ultra-low resin absorption, helping customers achieve weight reduction and overall cost

reduction of components without surface sealing treatment, while ensuring reliable and strong peel strength. With its superior shear strain and temperature performances, Divinycell PY is suitable for a variety of processes such as vacuum infusion, pre-preg and hot-press moulding.

MECHANICAL PROPERTIES OF DIVINYCELL® PY

Property	Test method ¹	Unit		PY100
Compressive strength ²	ASTM D 1621	MPa	Nominal	1.4
			Minimum	1.1
Compressive modulus ²	ASTM D1621-B-73	MPa	Nominal	115
			Minimum	95
Tensile strength ²	ASTM C 297	MPa	Nominal	2.6
			Minimum	2.1
Tensile modulus ²	ASTM C 297	MPa	Nominal	148
			Minimum	80
Shear strength ³	ISO 1922	MPa	Nominal	0.9
			Minimum	0.77
Shear strength ⁴	ISO 1922	MPa	Nominal	0.82
			Minimum	0.66
Shear modulus ⁴	ISO 1922	MPa	Nominal	22
			Minimum	16.5
Shear strain	ISO 1922	%	Nominal	20
Density	ISO 845	kg/m ³	Maximum	105
			Nominal	100
			Minimum	95

1. All values measured at +23°C. 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. Properties measured perpendicular to welding lines, 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 FEATURES

- Recyclable
- Ultra-low resin absorption
- Reliable and strong peel strength
- Superior shear strength
- Excellent fatigue resistance
- Stable polymer
- Thermoformable
- Good chemical resistance
- Resistant to high processing temperature
- Suitable for a variety of processes
- Compatible with most resins used in the composite industry



TECHNICAL CHARACTERISTICS DIVINYCELL® PY

Characteristics ¹	Unit	PY100	Test method
Density variation	%	± 5	-
Thermal conductivity ²	W/(m-K)	0.034	ASTM C177

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

The maximum processing temperature depends on time, pressure and process conditions. Therefore, it is recommended that users contact Diab Technical Service to confirm if Divinycell PY is compatible with their specific process parameters.

OTHER CHARACTERISTICS DIVINYCELL® PY

Format		Unit	PY100
Plain sheet	Length	mm	2440
	Width	mm	1005
GS sheet	Length	mm	1220
	Width	mm	1005
Colour			Off white

Other dimensions are available upon request.

DNV approval pending

Disclaimer:

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