



## TECHNICAL DATA

# Divinycell PY

### HIGH PERFORMANCE PET SANDWICH CORE

Divinycell PY is Diab's newest addition to the PET family. All our PET foams are excellent, recyclable thermoplastic core materials, which are suitable for a variety of processes including infusion, prepreg and press bonding.

Divinycell PY provides excellent shear strain, low resin absorption and has been developed to meet latest blade designs.

### MECHANICAL PROPERTIES DIVINYCELL® PY

Property	Test Procedure <sup>1</sup>	Unit		PY105	PY250
Compressive Strength <sup>2</sup>	ASTM D1621	MPa	Nominal	1.5	4.4
			Minimum	1.4	4
Compressive Modulus <sup>2</sup>	ASTM D1621-B-73	MPa	Nominal	112	210
			Minimum	85	200
Tensile Strength	ASTM C 297	MPa	Nominal	2.4	5.0
			Minimum	1.9	3.0
Tensile Modulus	ASTM D 1623	MPa	Nominal	110	230
			Minimum	90	200
Shear Strength <sup>3</sup>	ISO 1922	MPa	Nominal	0.95	2.5
			Minimum	0.8	2.0
Shear Modulus <sup>3</sup>	ISO 1922	MPa	Nominal	25	70
			Minimum	23	68
Shear Strength <sup>4</sup>	ISO 1922	MPa	Nominal	0.85	2.2
			Minimum	0.75	1.8
Shear Modulus <sup>4</sup>	ISO 1922	MPa	Nominal	23	60
			Minimum	19	56
Shear Strain <sup>2</sup>	ISO 1922	%	Nominal	30	15
			Minimum	15	5
Density	ISO 845	kg/m <sup>3</sup>	Nominal	105	250
			Maximum	115	255
			Minimum	100	240

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

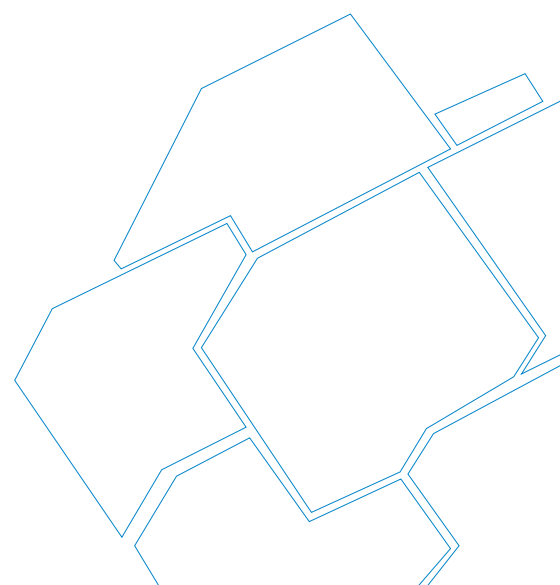
4. Shear properties measured perpendicular to weldlines, 2-3 direction

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

- Consistent quality
- Recyclable
- Thermoformable
- Good chemical resistance
- Excellent shear strain
- Low resin uptake
- Allows for high processing temperatures



# TECHNICAL CHARACTERISTICS

## TECHNICAL CHARACTERISTICS DIVINYCELL® PY

Characteristics <sup>1</sup>	Unit	PY105	PY250	Test method
Density variation	%	± 5	+2-5	ASTMC177
Thermal conductivity <sup>2</sup>	W/(m-K)	0.034	TBD	ASTMC177

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 Divinycell PY is compatible with their particular processing parameters.

## PHYSICAL CHARACTERISTICS DIVINYCELL® PY

Format		Unit	PY105	PY250
Plain sheets	Length	mm	2440	2440
	Width	mm	1005	1005
GS sheet	Length	mm	1220	1220
	Width	mm	1005	1005
Colour			Yellow	Yellow

Other dimensions are available on request.

**Divinycell PY105 is type approved by:**



**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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