



**NEW**

TECHNICAL DATA

# Divinycell PR

## NEXT GENERATION RECYCLED PET SANDWICH CORE

Divinycell PR is a sandwich core made of up to 45% post-consumer PET and additional post-industry recycled PET to boost performance. A true circular sustainable product to meet environmental needs and commitments, suitable for a variety of applications and processes including infusion, prepreg and press bonding.

Divinycell PR has good compression and shear properties with high dimensional stability at elevated temperature.

A closed cell structure with low resin uptake and good thermal insulation properties.

## MECHANICAL PROPERTIES DIVINYCELL® PR

Property	Test Procedure <sup>1</sup>	Unit		PR80	PR100	PR150	PR200	PR250
Compressive Strength <sup>2</sup>	ASTM D1621	MPa	Nominal	1.0	1.4	2.5	3.8	5.0
			Minimum	0.8	1.2	2.2	3.2	4.3
Compressive Modulus <sup>2</sup>	ASTM D1621	MPa	Nominal	100	112	165	230	280
			Minimum	80	85	130	190	220
Tensile Strength <sup>2</sup>	ASTM D1623	MPa	Nominal	2.3	2.4	2.9	3.4	5.7
			Minimum	1.6	1.9	2.3	2.8	4.9
Tensile Modulus <sup>2</sup>	ASTM D1623	MPa	Nominal	95	110	175	230	270
			Minimum	60	90	130	180	220
Shear Strength <sup>3</sup>	ISO 1922	MPa	Nominal	0.6	0.8	1.45	2.1	2.85
			Minimum	0.5	0.7	1.25	1.8	2.25
Shear Modulus <sup>3</sup>	ISO 1922	MPa	Nominal	20	25	42	65	87
			Minimum	15	22	37	50	65
Shear Strength <sup>4</sup>	ISO 1922	MPa	Nominal	0.60	0.8	1.35	2.0	2.6
			Minimum	0.45	0.65	1.25	1.7	2.2
Shear Modulus <sup>4</sup>	ISO 1922	MPa	Nominal	16	21	36	55	75
			Minimum	13	17	32	47	60
Shear Strain	ISO 1922	%	Nominal	15	15	15	10	10
Density	ISO 845	kg/m <sup>3</sup>	Nominal	80	100	150	210	250
			Maximum	85	105	160	220	265
			Minimum	75	95	145	195	235

1. All values measured on foams with welding lines tested at +23°C.

2. Properties measured perpendicular to the plane

3. Properties measured parallel to 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 independently of density.

## PRODUCT CHARACTERISTICS

- Made of up to 45% post-consumer PET, and additional post-industry recycled PET
- Recyclable
- Low resin uptake
- Thermoformable
- Low density variation
- Good chemical resistance
- Good mechanical properties
- Closed cell structure
- Allows for high processing temperatures



# TECHNICAL CHARACTERISTICS

## TECHNICAL CHARACTERISTICS DIVINYCELL® PR

Characteristics <sup>1</sup>	Unit	PR80	PR100	PR150	PR200	PR250	Test method
Thermal conductivity <sup>2</sup>	W/(m·K)	0.033	0.035	TBD	TBD	TBD	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 Divinycell PR is compatible with their particular processing parameters.

## OTHER CHARACTERISTICS DIVINYCELL® PR

Format		Unit	PR80	PR100	PR150	PR200	PR250
Plain sheets	Length	mm	2440	2440	2440	2440	2440
	Width	mm	1220	1220	1220	1220	1220
GS sheet	Length	mm	1220	1220	1220	1220	1220
	Width	mm	1220	1220	1220	1220	1220
Thickness mm			5-120	3-120	3-120	3-95	3-85
Colour			Light green	Light green	Light green	Light green	Light green

Other dimensions are available on request.

## FST CLASSIFICATION

Depending on laminate configuration the following FST classification can be achieved when tested to EN 45545-2.

- HL3 R1 PR Core + aluminium skins
- HL2 R1 PR Core + composite skins
- HL2 R7 PR Core + composite skins

For more details contact our technical experts.

## STORAGE OF PRODUCT

The shelf life of Divinycell is unlimited when it is stored in its original package on ambient indoor storage conditions and protected against UV exposure.

## DIVINYCELL PR 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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