



TECHNICAL DATA

PET Foam | Divinycell PR

Post-consumer PET sandwich core

Divinycell PR is a recyclable sandwich core, based on post-consumer PET combined with post-industrial PET to enhance performance. Designed as a circular solution, it meets modern environmental demands while delivering reliable mechanical properties.

With good compression and shear performance, high dimensional stability at elevated temperatures, and low resin uptake, Divinycell PR ensures strength, durability, and processing efficiency across a wide range of applications. It is a non organic material with no rot, a durable wood replacement with good screw retention.

Mechanical properties

Property	Test Procedure ¹	Unit		PR80	PR100	PR150	PR200	PR250
Compressive Strength ²	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 ²	ASTM D1621	MPa	Nominal	100	112	165	230	280
			Minimum	80	85	130	190	220
Tensile Strength ²	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 ²	ASTM D1623	MPa	Nominal	95	110	175	230	270
			Minimum	60	90	130	180	220
Shear Strength ³	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 ³	ISO 1922	MPa	Nominal	20	25	42	65	87
			Minimum	15	22	37	50	65
Shear Strength ⁴	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 ⁴	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 ³	Nominal	80	100	150	210	250

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. PR135 available with no DNV certification, data sheet upon request.

Product characteristics

- Recyclable
- Low resin uptake
- Thermoformable
- Low density variation
- Good chemical resistance
- Good mechanical properties
- Closed cell structure
- Allows for high processing temperatures

Typical application areas



Marine



Construction



Transportation



Wind energy



Other industries

Technical characteristics

Characteristics ¹	Unit	PR80	PR100	PR150	PR200	PR250	Test method
Thermal conductivity ²	W/(m·K)	0.033	0.030	0.034	0.039	0.044	ASTM C177

1. Typical values are approximate

2. Thermal conductivity measured at +25°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.

Dimensions

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

Tolerances	Unit	Length	Width	Thickness
Plain sheets	mm	-5/+10	-/+5	-/+ 0.5

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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