

Divinycell P is a recyclable, thermoplastic sandwich core material that is typified by excellent FST (fire, smoke & toxicity) properties, high temperature performance, good mechanical properties and good chemical resistance. It also offers good thermal insulation properties and low water absorption. Although suitable for a wide range of applications, Divinycell P is particularly ideal for public transportation, industrial and wind energy applications.

For transportation applications Divinycell P can be readily used for floors and interior panelling in trains and trams due to its AFNOR NF F 16–101 M1F1 classification. In the industrial market, the good mechanical and FST properties of Divinycell P allow it to be used for a wide variety of applications such as buildings, domes and industrial housings. In the wind energy market, Divinycell P is suitable for both nacelles and spinners.

Divinycell P is compatible with virtually all commonly used resin systems (polyester, vinyl ester and epoxy). Its high processing temperature (150°C/302°F) allows it to be used with most 'industrial' prepreg materials. Due to its closed cell structure Divinycell P can be readily used with vacuum infusion process. It can also be easily thermoformed.

Preliminary Technical Data for Divinycell P

Property	Method	Unit	P 60	P 100	P 120	P 150
Nominal Density	ISO 845	Kg/m ³	60	110	120	150
		lb/ft ³	3.8	6.9	7.5	9.4
Compressive Strength ¹⁾	ASTM D 1621	MPa	0.55	1.50	1.65	2.30
		psi	80	218	239	334
Compressive Modulus ¹⁾	ASTM D 1621 B	MPa	40	100	115	152
		psi	5,802	14,504	16,679	22,046
Tensile Strength	ASTM D 1623	MPa	1.10	1.80	2.00	2.45
		psi	160	261	290	355
Shear Strength	ISO 1922	MPa	0.35	0.85	0.91	1.25
		psi	51	123	132	181
Shear Modulus	ISO 1922	MPa	12.5	28	32	40
		psi	1,813	4,061	4,641	5,802
Shear Strain	ISO 1922	%	18	12	12	7.5
Thermal Conductivity	ASTM C 518	W/mK	TBD	0.033	TBD	TBD
		Btu·in/(ft ² ·h·°F)	TBD	0.229	TBD	TBD
Fire Resistance class ²⁾	DIN 5510	–	S4 ST2 SR2	S4 ST2 SR2	TBD	TBD
	AFNOR NF F 16–101	–	TBD	M1 F1	TBD	TBD
Water Absorption	ASTM C272	kg/m ²	TBD	0.021	TBD	TBD
Dimension		mm	1220 x 610	1220 x 610	1220 x 610	1220 x 610
Colour Coding			Yellow	Blue	Violet	Green
1) Perpendicular to the plane. All values measured at +23°C (+73.4°F).						
2) Measured at 20 mm foam thickness.						

