

The high performance PET sandwich core

Divinycell PN is a structurally strong thermoplastic sandwich core material perfectly suited in a variety of applications to increase their performance and to decrease their weight. Its material characteristics makes it easy to tool and shape, which enables fast and easy processing also at elevated temperatures. Divinycell PN has got excellent chemical resistance and is compatible with all commonly

used resin systems such as polyester, epoxies, vinyl esters and more. With its high processing temperature performance and good dimensional stability at elevated processing temperatures, it can be readily used in infusion or with a wide variety of prepreg systems as an alternative to press bonding or contact moulding.

Mechanical properties Divinycell® PN - Imperial units

Property	Test Procedure	Unit		PN65	PN80	PN115
Compressive Strength ¹	ASTM D 1621	psi	Nominal	102	145	247
Compressive Modulus ¹	ASTM D 1621 B-73	psi	Nominal	9,427	11,603	16,679
Shear Strength	ISO 1922	psi	Nominal	65	87	138
Shear Modulus	ISO 1922	psi	Nominal	1,740	2,901	4,496
Shear Elongation	ISO 1922	%	Nominal	20	15	12
Density	ISO 845	lb/ft ³	Nominal	4.1	5.0	7.2

All values measured at +73.4°F.

1. Properties measured perpendicular to the extrusion direction.

Nominal value is an average value of a mechanical property at a nominal density

Product Characteristics

- High temperature resistance
- Recyclable
- Thermoformable
- Good chemical resistance
- Good mechanical properties
- Minimum resin uptake

Applications within

- Wind blades
- Nacelles
- Tanks and Covers
- Panelling
- Sport goods
- Goods Transport
- Furnitures

Technical Characteristics

Technical characteristics Divinycell® PN

Characteristics ¹	Unit	PN65	PN80	PN115	Test method
Density variation	lb/ft ³	± 0.31	± 0.31	± 0.31	ISO 845
Thermal conductivity ²	Btu x in/(ft ² x h x °F)	0.222	0.222	0.222	ISO 12667

1. Typical values are approximate
2. Thermal conductivity at +68°F

Maximum processing temperature is dependent on time, pressure and process conditions. Therefore users are advised to contact Diab Technical Services to confirm that Divinycell PN is compatible with their particular processing parameters.

Physical characteristics

Format		Unit	PN65	PN80	PN115
Plain sheets	Length	inch	96.06	96.06	96.06
	Width	inch	48.03	48.03	48.03
GS sheet	Length	inch	48.03	48.03	48.03
	Width	inch	48.03	48.03	48.03

Other dimensions are available on request.

Disclaimer:

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