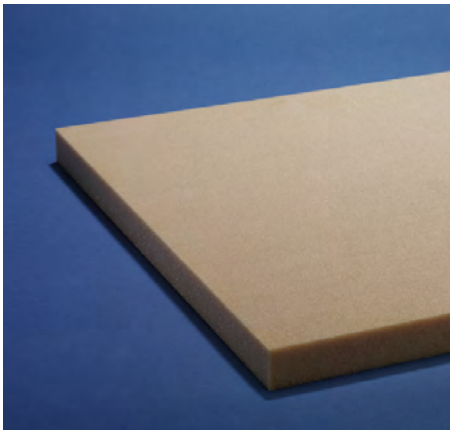
Technical Data Sheet

Divinycell® H



Product characteristics

- Low water absorption
- Superior damage tolerance
- Excellent thermal properties
- Fast and easy to process
- Good chemical resistance
- Excellent fatigue properties
- Very low resin uptake
- Wide range of properties
- Provides excellent mechanical properties to a low weight
- Closed cells
- Good temperature resistance
- Compatible with most common glues and resin systems

High performance PVC Core material

Divinycell® H provides excellent mechanical properties to low weight. The unique PVC chemical structure, yields impressive mechanical performance to a low weight. **Divinycell® H** has been widely used and has a proven track record in virtually every application area where sandwich composites are employed including the marine (leisure, military and commercial), land transportation, wind energy, civil engineering/infrastructure and general industrial markets.

Divinycell® H is ideal for applications subject to fatigue, slamming or impact loads. Other key features of **Divinycell® H** include consistent high quality, excellent adhesion/peel strength, excellent chemical resistance, low water absorption and good thermal/acoustic insulation. **Divinycell® H** is compatible with virtually all commonly used resin and manufacturing systems.

Divinycell® PVC foams also feature very low resin uptake, enabling weight and cost saving.

Mechanical properties Divinycell® H

Property	Test procedure	Unit			H60	H80
Compressive strength[1]	ASTM D 1621	MPa	Nominal		0.9	1.4
			Minimum		0.7	1.15
Compressive modulus[1]	ASTM D1621-B-73	MPa	Nominal		70	90
			Minimum		60	80
Tensile strength[1]	ASTM D 1623	MPa	Nominal		1.8	2.5
			Minimum		1.5	2.2
Tensile modulus[1]	ASTM D 1623	MPa	Nominal		75	95
			Minimum		57	85
Shear strength	ASTM C 273	MPa	Nominal		0.76	1.15
			Minimum		0.63	0.95
Shear modulus	ASTM C 273	MPa	Nominal		20	27
			Minimum		16	23
Shear strain	ASTM C 273	%	Nominal		20	30
Density	ISO 845	kg/m³	Nominal		60	80

All values measured at +23°C
1. Properties measured perpendicular to the plane.

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.

Edition 05/2024, subject to change.

Technical characteristics Divinycell® H

Characteristics[1]	Unit		H60	H80
Density variation	%		+15/-10%	+9/-16%
Thermal conductivity[2]	W/(m-K)		0.029	0.031
Coeff, linear heat expansion	x10^{-6}/°C		40	40
Heat distortion temperature	°C		+125	+125
Continous temp range	°C		-200/+70	-200/+70
Max process temp	°C		+90	+90
Dissipation factor	-		0.0003	0.0005
Dielectric constant	-		1.06	1.09
Poissons ratiol[3]	-		0.4	0.4

1. Typiscal values
2. Thermal conductivity at +20°C
3. Standard deviation is 0.045

Continuous operating temperature is typically -200 °C to +70 °C. The foam can be used in sandwich structures, for outdoor exposure, with external skin temperatures up to +85 °C. For optimal design of applications used in high operating temperatures in combination with continuous load, please contact Technical Services of R&G for detailed design instructions.

Maximum processing temperature is dependent on time, pressure and process conditions. Therefore users are advised to contact Technical Services of R&G to confirm that **Divinycell® H** is compatible with their particular processing parameters.

Other characteristics Divinycell® H

Format		Unit		H60	H80
Plain sheets	Length	mm		1220	1220
	Width	mm		610	610

Storage

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® H is type approved by:

TYPE APPROVED PRODUCT
DNV·GL
DNVGL.COM/AF

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