



TECHNICAL DATA

PVC Foam | Divinycell HM

PVC core material with outstanding toughness and strength

Divinycell HM is a high-performance structural core specifically designed for fast marine hulls that demand higher toughness. It combines very high shear strength with exceptional shear elongation, making it an extremely durable core material capable of withstanding high dynamic impacts and slamming loads.

Divinycell HM's elongation exceeds the requirements of ISO 12215, GL and ABS rules to allow for reduced safety factors in structural calculations, providing a lighter, yet strong structure. Divinycell HM's high compressive properties provide excellent resistance to denting and skin wrinkling of thin skins. Divinycell HM offers a high operating temperature, thus reducing the risk of print through on dark hulls.

Mechanical properties

Property	Test Procedure	Unit		HM80	HM100	HM130
Compressive Strength ¹	ASTM D 1621	psi	Nominal	203	290	435
			Minimum	167	239	348
Compressive Modulus ¹	ASTM D1621-B-73	psi	Nominal	14,500	19,575	24,650
			Minimum	11,600	16,675	21,030
Shear Strength	ASTM C 273	psi	Nominal	167	232	319
			Minimum	139	203	276
Shear Modulus	ASTM C 273	psi	Nominal	3,915	5,075	7,250
			Minimum	3,190	4,060	5,800
Shear Strain	ASTM C 273	%	Nominal	41	41	41
Density	ISO 845	lb/ft ³	Nominal	4.1	6.3	8.1

All values measured at +73,4°F

1. Properties measured perpendicular to the plane.

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

Minimum value is a minimum guaranteed mechanical property a material has independently of density.

Maximum processing temperature is +110°C. It is dependent on time, pressure and process conditions.

Therefore users are advised to contact Diab Technical Services to confirm that Divinycell HM is compatible With their particular processing parameters.

Product characteristics

- Outstanding toughness and fatigue resistance
- Superior shear strength
- High compressive strength and stiffness
- High temperature resistance
- Compatible with all resins used in marine
- Very low resin absorption

Typical application areas



Marine

Technical characteristics

Characteristics ¹	Unit	HM80	HM100	HM130
Density range	lb/ft ³	4.5-5.8	5.6-7.2	7.3-9.3

1. Typical values

Dimensions

Format		Unit	HM80	HM100	HM130
Plain sheets	Length	inch	96.06	85.04	77.17
	Width	inch	48.03	42.13	38.19
GS sheet	Length	inch	48.03	42.52	38.58
	Width	inch	32.01	42.13	38.19

Tolerances	Unit	Length	Width	Thickness
Plain sheets	Inch	-0.39/0.24	-0.20/+0.24	-/+ 0.02

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 HM is type approved by:



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