

PM Technical Data Sheet



Yihe Core

DESCRIPTION

- Core materials and resin flow medium for closed mould processes, including infusion and RTM.
- Pressure-stable polyester non-woven fabrics that are compatible with all regular types of resins, including unsaturated polyester, vinyl ester, phenolic and Epoxy.

APPLICATIONS

- Marine: Yacht and boat hulls, decks and structural components
- Transportation: interior and exterior parts of cars, trailers, trucks, RV, buses and trains
- Leisure: kayaks, surfboards, swimming pool
- Industrial: furniture, exterior wall panels of buildings, fans, pressure vessels, storage tanks, artificial stones
- Wind energy: nacelle covers and blades



ADVANTAGES

- A cost-effective core material
- Hexagonal closed-cell structure exhibits high compression resistance and enables weight reduction
- Improves part appearance
- Improves impact resistance and stiffness
- Superior conformability
- Fast resin flow along channels between hexagons
- Available in max. 10 mm thickness

BASIC PROPERTIES

Properties		PM1.5	PM2	PM3	PM4	PM5	PM6
Thickness	mm	1.5	2.0	3.0	4.0	5.0	6.0
Thickness loss at 0.8 bar	%	<8	<8	<8	<8	<8	<8
Roll length	m	100	80	50	40	30	25
Roll width	m	1.27	1.27	1.27	1.27	1.27	1.27
Max processing temperature	°C	180	180	180	180	180	180
Dry weight	g/m ²	100	140	180	240	310	340
Resin uptake	kg/m ² /mm	0.4–0.5					
Impregnated density	kg/m ³	500–600					

MECHANICAL PROPERTIES OF PM3 (AFTER IMPREGNATION WITH UNSATURATED POLYESTER RESIN)

Mechanical properties	Unit	Value	Test Method
Flexural strength	MPa	8.5	ASTM D790
Flexural modulus	MPa	900	ASTM D790
Tensile strength across layers	MPa	4	ASTM C297
Compression strength at 10% strain	MPa	8.5	ISO 844
Shear strength	MPa	4	ASTM C273-61
Shear modulus	MPa	45	ASTM C273-61

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Notes:

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