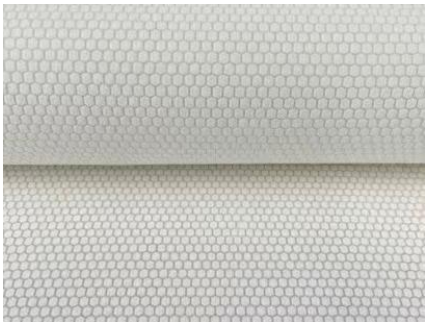
Yihe Core

Technical Data Sheet

PM

DESCRIPTION

- Core materials and resin flow medium for closed mould processes, including vacuum infusion and RTM.
- Pressure-stable polyester non-woven fabrics that are compatible with all common resins, including UP, VE, EP.



APPLICATIONS

- Marine: yacht and boat hulls, decks, and structural components
- Transportation: interior and exterior parts of motor vehicles, including trailers, trucks, RVs, buses, and trains
- Leisure: water sports equipment and crafts
- Industrial: furniture, exterior wall panels of buildings, fans, pressure vessels, storage tanks, and 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 drapablity
- Fast resin flow along channels between hexagons
- Available in max. 10 mm thickness

BASIC PROPERTIES

Properties		PM 1.5	PM 2	PM 3	PM 4	PM 5	PM 6
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	℃	180	180	180	180	180	180
Dry weight	g/m^2	100	140	180	240	310	340
Resin uptake	$kg/m^2/mm$	0.4–0.6					
Impregnated density	kg/m^3	500-600					

1 Calculated based on other measured properties.

TYPICAL TARGET MECHANICAL VALUES 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

2 The mechanical data listed above represent engineering target specifications based on comparable industry baselines. Official laboratory validation testing is currently underway.

TDS version: V4 08 2026

Notes：

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