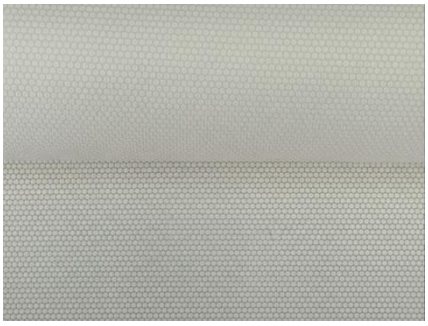
Yihe Core

Technical Data Sheet

PS

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 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. 3 mm thickness

BASIC PROPERTIES

Properties		PS2	PS3
Thickness	mm	2.0	3.0
Thickness loss at 0.8 bar	%	< 13	< 13
Roll length	m	80	50
Roll width	m	1.27	1.27
Max processing temperature	℃	180	180
Dry weight	g/m^2	130	180
Resin uptake	$kg/m^2/mm$	0.4–0.6	
Impregnated density	kg/m^3	600–700	

1 Calculated based on other measured properties.

TYPICAL TARGET MECHANICAL VALUES OF PS3 (AFTER IMPREGNATION WITH UNSATURATED POLYESTER RESIN)

Mechanical properties	Unit	Value	Test Method
Flexural strength	MPa	18	ASTM D790
Flexural modulus	MPa	1100	ASTM D790
Tensile strength across layers	MPa	6.5	ASTM C297
Compression strength at 10% strain	MPa	4.4	ISO 844
Shear strength	MPa	6.5	ASTM C273-61
Shear modulus	MPa	50	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.

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Notes:

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Website: www.yihecore.com **Email: sven.w@yihecore.com**