BIOFIBIX HYPERMAT 300 – TECHNICAL DATASHEET

BIOFIBIX Hypermat is an isotropic flax reinforcement engineered to meet **cost**, **performance & sustainability** needs of high-volume composite applications.

Key characteristics:

- Isotropic flax reinforcement
- Proprietary treatment technology
- Belgian grown flax fibers
- European Flax Certification
- High specific stiffness & strength
- High vibration and sound damping
- Low resin uptake at full impregnation
- Improved moisture resistance

Description of the fabric

Property	Value	Unit	Standard
Areal weight	303 ± 33	g/m^2	ISO 3801
Moisture content *	5.7 ± 0.7	%	ISO 3344
Width	Standard: 1270 Available: 500 - 2300	mm	ISO 5025
Thickness **	0.89 ± 0.14	mm	ISO 5084

* measured at standard conditions RH 50% - 23 °C

** measured with circular pressure foot having a diameter of 70mm and exerting a pressure of 1 kPa

Mechanical properties of the laminate

Details of laminate 1

Stacking sequence	4 layers oriented in machine direction (MD)	
Production method	Vacuum infusion	
Resin	Sicomin Infugreen 810 with SD4773 hardener	
Fiber mass fraction	46.0 ± 2.2	%
Thickness of consolidated ply*	0.51 ± 0.03	mm

* laminate thickness divided by number of layers

Mechanical properties of laminate 1

Standard	ISO 527			ISO 14125		
Loading mode	Tension			Flexure		
Test direction	MD	CD	45	MD	CD	45
Young's modulus (GPa)	9.0 ± 1.4	7.4 ± 1.3	8.8 ± 0.7	8.8 ± 1.4	8.6 ± 2.9	7.4 ± 0.5
Strength (MPa)	90 ± 6	70 ± 7	85 ± 3	114 ± 16	120 ± 30	102 ± 3
Failure strain (%)	1.8 ± 0.2	1.6 ± 0.1	1.7 ± 0.1	3 ± 0.2	2.8 ± 0.3	2.7 ± 0.1

MD: Machine Direction , CD: Cross Direction

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