# BIOFIBIX HYPERMAT 425 – 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 | 429 ± 26 | g/m$^2$ | ISO 3801 |
| Moisture content * | 6.4 ± 0.2 | % | ISO 3344 |
| Width | Standard: 1270<br>Available: 500 - 2300 | mm | ISO 5025 |
| Thickness ** | 1.75 ± 0.11 | 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 | 3 layers oriented in machine direction (MD) | |
| Production method | Out-of-autoclave with prepreg. Consolidated in hot press at 3 bar | |
| Resin | Sicomin SR 8500 with KA313 hardener | |
| Fiber mass fraction | 49.1 ± 1.2 | % |
| Thickness of consolidated ply* | 0.63 ± 0.07 | mm |

* laminate thickness divided by number of layers

### Mechanical properties of Laminate 1

| Standard | ISO 14125 | |
|---|---|---|
| Loading mode | Flexure | |
| Test direction | MD | CD |
| Young's modulus (GPa) | 10.4 ± 0.3 | 9.4 ± 0.5 |
| Strength (MPa) | 150 ± 15 | 144 ± 8 |
| Failure strain (%) | 2.3 ± 0.2 | 2.3 ± 0.2 |

MD: Machine Direction, CD: Cross Direction