

Product description



FlaxDry™ UD180 is a woven unidirectional reinforcement, designed for the manufacturing of high performance and low environmental footprint parts.

| | | |
|---------------------|----------------------|-------------------|
| Nature of product | Ribs 4/4 | |
| Type of yarn | Warp : Wet | Weft : Wet |
| Linear density | Warp : 24 Nm | Weft : 36 Nm |
| Flax origin | 100% European Flax | |
| Weaving style | Warp : 42,5 yarns/cm | Weft : 3 picks/cm |
| Weight distribution | Warp : 95,5% | Weft : 4,5% |

Product properties

| Property | Value | Unit | Standard |
|------------------|---------|--------------------|----------------|
| Moisture content | 9 ±1 | % | NF EN ISO 3344 |
| Surface weight | 180 ±18 | g.m ⁻² | NF G07-150 |
| Fiber density | 1,45 | g.cm ⁻³ | - |

Tensile mechanical properties¹

| Property | Data | | Unit | Standard |
|--------------------------------|----------------|----------------|------|----------------|
| | Weft direction | Warp direction | | |
| Tensile Strength | 26 ±1 | 255 ±16 | MPa | ISO 527-5 |
| Young Modulus ² | 4 ±1 | 23 ±3 | GPa | ISO 527-5 |
| Elongation at break | 1,5 ±0,2 | 2,0 ±0,1 | % | ISO 527-5 |
| Thickness of 1 impregnated ply | 0,36 ±0,02 | | mm | NF EN ISO 5084 |

¹ : Flax/Bio-epoxy composite at 35% ±1% of fibers volumic fraction made by vacuum infusion à 0,4mBar

² : Modulus measured between 0,02 and 0,1% deformation

Storage

Dry area and avoid direct sunlight

Manufacturing methods

Infusion, RTM, thermocompression, hand lay up, ...

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