

TECHNICAL DATA SHEET - FLAXTAPE™

Products:

FlaxTape™ is the brand used for our patented tapes of unidirectional flax fibers.
FlaxTape™ is ready to be used for all conventional processes (infusion, RTM, film stacking, prepreg...)



Pictures of FlaxTape™ production

Name	Description	Weight	Width
FLAXTAPE™ 50	Tapes of unidirectional flax fibers	50gr of flax/m ²	40 cm
FLAXTAPE™ 70		70gr of flax/m ²	40 cm
FLAXTAPE™ 110		110gr of flax/m ²	40 cm
FLAXTAPE™ 200		200gr of flax/m ²	40 cm

Main markets:

		Advantages
Sport and leisure	rackets, bicycle frames, skis, boards, ...	Dampening properties
Transportation	Already used in aeronautic, automotive, boat manufacturing, railway.	Weight reduction, Mechanical & Acoustic properties, Bio-based material

Mechanical properties:

Composite made with 12 layers of "FlaxTape™ 110" and an epoxy resin processed by RTM:

RATE OF FIBRES	By Volume	50%
TRACTION (ISO 527)	Modulus	35 GPa
	Tensile strength	365 MPa
	Failure Strain	1,35 %
FLEXION (ISO 14 125)	Modulus	31 GPa
	Max Strength	294 MPa
	Failure Strain	2,6 %
THEORIC DENSITY		1.31gr/cm ³

Composite made with 12 layers of "FlaxTape™ 110" and 20 PP films by film stacking and compression moulding:

RATE OF FIBRES	By Volume	43%
TRACTION (ISO 527)	Modulus	33 GPa
	Tensile strength	275 MPa
	Failure Strain	1,22%
FLEXION (ISO 14 125)	Modulus	23 GPa
	Max Strength	210 MPa
	Failure Strain	2,1 %
THEORIC DENSITY		1.13gr/cm ³

Damping properties:

Low frequency dampening (flexion/mode 2):

Product	Dampening ratio
UD Flax	1.47%
UD Carbon	0.18%
UD Glass	0.15%

