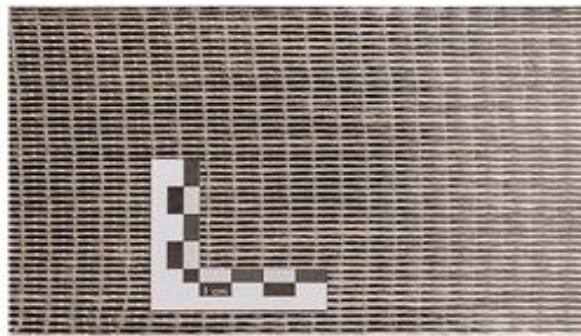


ampliTex™

Art. No. 5027

hybrid UD fabric



ampliTex™ 5027 fusion UD tape is a flax-carbon hybrid non-crimp tape, made of low-twist yarns. ampliTex™ 5027 is used as local reinforcement for areas subjected to severe loads or to cover for larger surfaces.

Fabric architecture

Fibre type : Flax (EU)

Construction : UD tape 0°

Yarn Tex : ask bcomp

Fabric weight : see table

Dimensions

Standard width : 52 mm, other on demand

Standard roll length : 50 m

Ecological Aspects

Grown in France and Belgium, the flax used at Bcomp is a regional resource.

Production of flax has a negative global warming indicator because of the CO₂ sequestration by photosynthesis.

Find more details on bcomp.ch.

Technical Performances

The ampliTex™ 5027 fusion tape brings the best of two worlds: the very high stiffness of carbon and the light weight and damping of flax. Both fibres also have a excellent compatibility, since they have similar thermal expansion coefficient and strain to failure.

Dimensions available	
5027	52 mm / 225 gsm
5027-2	340 mm / 225 gsm
5027-3	25 mm / 150 gsm
5027-4	120 mm / 160 gsm

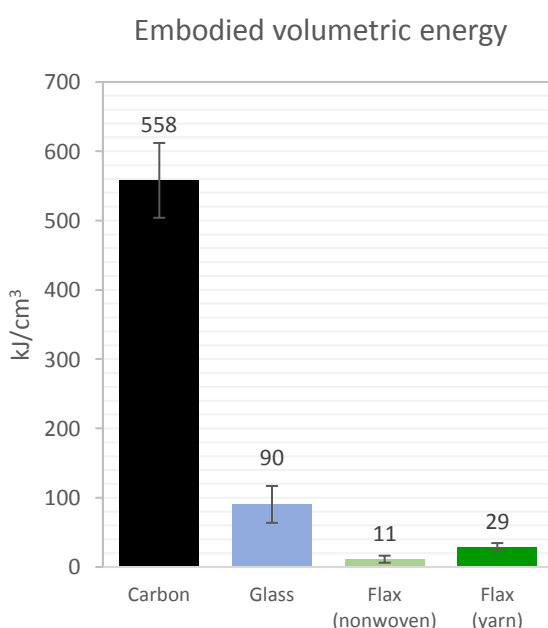
Flexural Properties	
Modulus // to fibres (GPa)	66.6
Modulus ⊥ to fibres (GPa)	-
Strength // to fibres (MPa)	730
Strength ⊥ to fibres (MPa)	-
Yield strength, Rp0.2 // (MPa)	642

Ply Properties	
Density dry fibers (kg/m ³)	-
Ply thickness (mm)	0.32

* Mechanical Properties evaluated on specimens manufactured from 7 layers of fabric in vacuum infusion. Fibre volume fraction of 50%.

Processing Guidelines

- Excellent compatibility with epoxy and polyester
- Near-zero CTE, hence full processing compatibility with carbon fibres
- Compatible with infusion-based processes (vacuum infusion, RTM), wet layup, bladder inflation moulding (BIM) and compression moulding
- Flax fibers always contain some humidity under ambient conditions. Some resins (especially polyesters) are sensitive to moisture and may poorly polymerize or create bubbles. In this case we recommend drying the fabrics prior use (110°C for 15 minutes)
- Fibre weight fraction of 60% can be achieved with process pressure > 5 bars. However, the fibres absorb a lot of resin when hand-laminating and it tends to look "dry" (unless too much resin is used) before pressure is applied. We recommend controlling the amount of resin used for laminating and impregnating with 50 to 60% resin in weight. Excess resin will be squeezed out while pressing.



All data given is based on representative samples of the materials in question. Since the method and circumstances under which these materials are processed and tested are key to their performance, and Bcomp has no assurance of how its customers will use the material, the company cannot guarantee these properties.