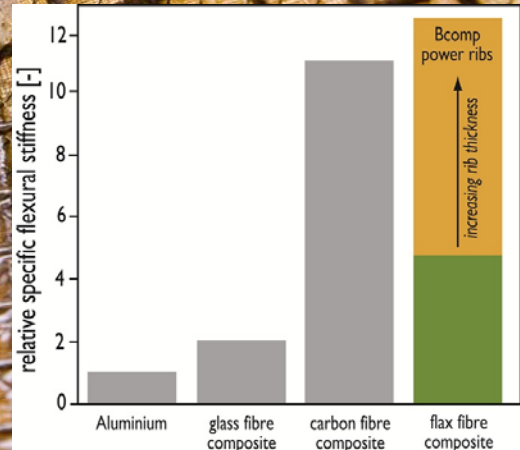


+ 250% flexural stiffness
+ 250% damping properties



ampliTex® powerRibs FACTS

FABRIC ARCHITECTURES

- **ampliTex® power ribs no. 5005**
1666 tex, ±45° /mesh sizes 14 mm on 170mm wide bobbins (240gsm)
- **ampliTex® power ribs no. 5006**
1000 tex, ±45° /mesh sizes 10 mm on 170mm wide bobbins (200gsm)
- **ampliTex® power ribs no. 5012**
650 tex, ±45° /mesh sizes 5 mm on 170mm wide bobbins (260gsm)
- **ampliTex® power ribs no. 5019** 
1500 tex, 0/90° /mesh sizes 15 mm on 1150mm wide rolls (200gsm)
- **ampliTex® power ribs no. 5020** 
3000 tex, 0/90° /mesh sizes 25 mm on 1150mm wide rolls (240gsm)

PROCESSING

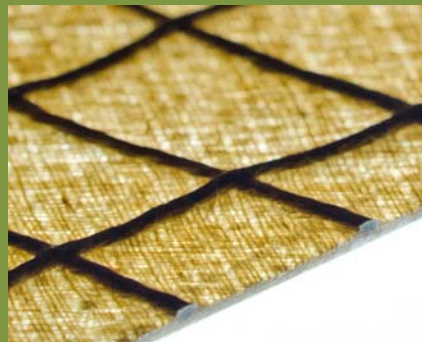
- Good compatibility with epoxy and polyester and can be used as **flow media**
- Near-zero CTE, hence good processing compatibility with **carbon fibres**
- Compatible with infusion-based processes (vacuum infusion, RTM), wet layup, bladder inflation molding (BIM), compression molding

AWARDED TECHNOLOGY



PERFORMING NATURAL FIBRE PRODUCTS

Less weight and more performance — the Bcomp powerRibs technology boost your next-generation composites



In the framework of a project for the Swiss Space Office, Bcomp carried out extensive tests on the damping properties of flax fibre based thin-walled composite structures. The results showed that a structure combining a carbon fibre base with the powerRibs displayed the same stiffness-per-weight ratio than the full carbon reference part, but increased the damping properties by 250%.

Bcomp's powerRibs technology consists of a natural fibre grid fabric resulting in ribs in the millimeter thickness range on the surface of composite parts, leading to a significant increase of the bending stiffness of thin fibre composite shell elements by adding minimal weight. During the three past years, Bcomp developed the ideal flax yarn and the efforts result in thin-walled flax fibre composite parts with **higher flexural** stiffness than a full carbon structure of equivalent weight.

The yarns thickness and twist are all tailored depending on the required mechanical properties of the final composite part.

The powerRibs technology is the solution of choice for composite shell elements with high stiffness- and damping requirements, allowing its use in a wide variety of applications in the Automotive-, Aerospace, and Space industry, ranging from interior semi-structural parts with a unique look, to structural exterior shell elements.

Play naturally smart