



SUPERCOMP™

Continuous Carbon Fiber Reinforced with Z-axis Milled Fiber

Light, stiff, and sustainable materials that enable your **next generation** of mass transit

Supercomp by Boston Materials

Using a patented process, Boston Materials reinforces carbon fiber materials with Z-axis milled fiber to manufacture Supercomp. This breakthrough material enables manufacturers of composite panels to **overcome economic, performance, and sustainability limitations** that hinder their use of carbon fiber in high-volume and cost-sensitive mass transit applications.

Supercomp roll goods are commercially available as preregs with unidirectional (UD) and woven carbon fiber. Supercomp with polyetherimide (PEI) and other fire-retardant thermoplastic resins are available for sampling and will be ready to ship in early 2021. Supercomp sheets and sandwich panels, up to 4 ft x 8 ft, can be pre-manufactured for stamping processes.

DAMAGE TOLERANCE

Supercomp products can be formulated with thermoplastics that have higher tolerance to impact and damage than thermosetting polymers. The use of thermoplastics also enables easy repair through heating & re-flowing the polymer of the composite panel.



MEET SUSTAINABILITY TARGETS

Supercomp products are made with 50% milled carbon fiber. The milled fiber is sourced from scrap generated by aircraft manufacturers. This alternative source for carbon fiber enables a cost reduction over commercially available carbon fiber products.



FIRE SAFETY

Supercomp sheets and panels can be built with a dense milled carbon fiber on the surface. The milled fiber used by Boston Materials is a common fire-retardant additive. The unique structure of Supercomp reduces the risk of the polymer in the composite panel from burning and producing smoke or toxic fumes.



What to Expect with Supercomp?

COSTS REDUCTION

Supercomp reduces the cost of carbon fiber by 25% with the use of low-cost recycled milled fiber. Supercomp also reduces manufacturing labor to give a 30% overall cost savings.



COMPLEX FEATURES & CURVES

Supercomp provides a milled fiber layer that can easily morph to tight geometries and eliminate air pockets to give a consistent surface finish. Supercomp parts have been made with a fine as 0.8mm radii features.



PLUG-AND-PLAY

Supercomp is compounded with epoxy, polycarbonate, or virtually any other thermoplastic resin. Boston Materials has an open model to utilize raw materials from your existing suppliers.

