

Case Study:

Durable Acoustic Guitar



Material Selection

The guitar was built using Biotex Flax 2x2 Twill 400gsm fabric combined with carbon fibre and Entropy's SuperSap bio-derived epoxy. It also has sound woods laminated into the face for stability.

Why Biotex Flax?

Composites Evolution's materials allowed Alpaca to realise their ambition of creating a sustainable and durable acoustic guitar that is both aesthetically pleasing and great sounding.

Background

Based in Vermont, US, Alpaca Guitars specialises in handcrafted guitars designed to bring together innovation, adventure, excitement and good conscience. It is enthusiastic about the materials, processes and tooling that they use.

Traditionally, acoustic guitars are made from wood laminate. Chris Duncan, the Founder and Designer of the Alpaca guitar, was inspired to build an "adventure guitar" after his traditional acoustic guitar was unable to withstand the pressures of excessive use, atrocious roads, elevations changes and humidity extremes.

Alpaca prides itself on being sustainable in every facet of its business. Using LinkedIn, Alpaca was introduced to Composites Evolution who was able to offer a sustainable solution for their guitar.

Production

The Alpaca Tweed is made from two pieces, each moulded in single side moulds using vacuum infusion. Composites Evolution's Biotex Flax 2x2 Twill 400gsm fabric was chosen as it had the tightest weave. The combination of materials produced a lightweight and strong instrument with a brilliant, resonant sound.

