

SUSTAINABILITY AWARD

Shortlisted: Prodrive Composites

Collaboration with Hummingbird to design and manufacture a 100% natural fibre composite monocoque for the worlds lightest folding bike.

Prodrive Composites' entry into the 2021 Composites UK Sustainability Award category focusses on the design and engineering activities in moving from a traditional carbon fibre application to a complete 100% natural fibre composite structure, whilst maintaining, or improving, the mechanical performance and weight.

One such application of this is the Hummingbird Bike Monocoques where Prodrive Composites has collaborated to design and manufacture a 100% natural fibre composite monocoque for the worlds lightest folding bike.

Hummingbird has created the world's lightest sustainable bike, made out of flax plant fibres - a world first. The models range in weight from just 6.9kg up to 10.3kg, and for the Electric Belt Drive model shown here, this new flax model has matched the weight of its carbon fibre predecessor whilst maintaining all of its strength and elegance.

Already being used in the motorsport industry as an alternative to carbon fibre, flax is lighter than carbon and offers improved vibration damping. Like the carbon fibre range, the new flax model passed ISO standards with flying colours after being put through the industry's rigorous stress tests. The result is a beautiful, glistening finish, similar in colour to the tweed of a bespoke suit, whilst also giving decades of use much like its carbon fibre counterpart.



Website: [www.prodrive.com](http://www.prodrive.com)

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