

SCALE Advanced Biocomposites Revolutionises Carbon Fibre Replacement in Cycling Industry

New BIO|Power™ and COR|Power™ products aim to reduce materials costs and greenhouse emissions while enhancing performance

JEC, Paris, France, February 28, 2024—SCALE Advanced Biocomposites, a leading innovator in bio-based composite reinforcements, today unveils its BIO|Power™ and COR|Power™ product lines, which are designed to replace or enhance carbon fibre in lightweight composites. By doubling down on the inherent benefits of natural fibres and bio-based materials, including low density and excellent damping characteristics, SCALE enables composites manufacturers to use the move to sustainable materials to provide new levels of performance, while reducing materials costs.

- **BIO|Power** yarns blend multiple natural fibres to create a range of performance and cost characteristics for sustainable composites. The first BIO|Power EX blend is expected to reduce fibre costs up to 40% and greenhouse emissions up to 95% versus carbon fibre.
- **COR|Power** is a damping filament which helps reduce the effects of vibration and harshness in carbon fibre composites by up to 30% when incorporated at 10% by weight.

SCALE is working initially with bicycle manufacturers to address industry challenges, including the trade-off between stiffness and comfort which has been exacerbated by the focus on aerodynamics in modern bicycle design, as well as improving product margins which particularly benefits manufacturers producing in Europe and North America.

SCALE's materials can provide significant benefits to manufacturers and cyclists alike, improving stiffness-to-weight performance, impact resistance, and vibration damping for a smoother ride.

"The cycling market is a perfect test bed for us. Cyclists are sophisticated customers with an unwavering demand for performance," says Lance Johnson, CEO, SCALE. "The damping properties of our materials, coupled with the ability to enhance stiffness without adding weight by using BIO|Power in narrower tube profiles, improve product performance while reducing environmental impact."

"We're working with SCALE as part of a long-term project to improve sustainability in bikes," says Martin Meir, Managing Director, REAP Design in the UK. "In early testing, we've combined BIO|Power and COR|Power to reduce carbon fibre content by 20%, increasing frame stiffness by more than 5% without weight penalties. Additionally, we expect better compliance in the frame and lower transmission of road vibration which will reduce rider fatigue."

"Collaborating with SCALE gives us the opportunity to use more sustainable materials in 3T's proprietary production processes," says Enrique Romero Pineda, Managing Engineer, 3T Cycling. "We've tested BIO|Power in our 3T RaceMax Italia layup, enhancing stiffness-to-weight of the bottom bracket by 5%. We're looking at how BIO|Power can reduce the quantity of material we use while preserving our current stiffness-to-weight, to have an even greater impact on our greenhouse emissions."

Request samples at: <https://scalebiocomposites.com/test-our-materials/>

Visit SCALE at JEC, Hall 6, Stand G01 in the Start-up Village.

About SCALE Advanced Biocomposites

SCALE Advanced Biocomposites is a climate tech start-up based in France, developing bio-based materials to decarbonise high-performance composites. SCALE's patent-pending BIO|Power™ and COR|Power™ materials help improve performance and reduce environmental impact in sporting goods, yachting, furniture and lifestyle, automotive and more.

<https://scalebiocomposites.com>

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