

INNOVATION IN MATERIALS

Winner: Bitrez

A new class of poly-furfural alcohol (PFA) bio-based polymer derived from biomass, utilised as a matrix resin in a variety of advanced composite applications.

Bitrez, partnered by Chemical Processing Services Limited - a polymer chemistry consultancy service – collaborated to develop composite resins that are derived from sustainable plant products that do not interfere with the food chain.

Furacure was launched this year as a new class of poly-furfural alcohol (PFA) bio-based polymer derived from waste biomass, utilised as a matrix resin in a variety of advanced composite applications. These PFA resins, a first of their kind to be manufactured in the UK, are derived from furfural, and modified to increase functionality and subsequent cross-link density. Standard grades of Furacure are commercially available but as ever, the Company welcomes the design of custom formulated and modified grades to suit specific customers process and application.

There is evidently scope to further utilise these materials in advanced composites, and Bitrez envisages that the attributes offered can bring about demand in mainstream applications, especially as fire resistant light weighting construction in transport and civil engineering continues to spearhead and drive development and design.



Designing Furacure was a two-company effort, led by CPS Managing Director, Paul Jones. Working with the Bitrez chemists, Paul employed cutting edge/ innovative chemistry, whilst Bitrez chemical engineers and production staff oversaw scale-up once the product was ready for market. Support was also provided from sales and marketing, administration and finance.

Website: www.bitrez.com

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