

Immediate Release

BioBuild Project Wins JEC Innovation Award 2015 Biocomposite Façade System

The Biobuild Project has won a JEC Innovation award for its Biocomposite Façade System.

Biobuild is a collaborative project part-funded by the European Commission. It has 13 partners from seven European countries. The aim of the project was to investigate the use of biocomposite materials to reduce the embodied energy in building components such as façade panels, cladding, ceiling and internal-partition systems by at least 50% over current materials with no increase in cost. These allow the use of sustainable, low-carbon construction materials, replacing aluminium, steel, fibre-reinforced polymers (FRPs), brick and concrete in new-build and refurbished structures.



The façade is described by the project as the world's first self-supporting façade panel for construction to be made of biocomposites. Building kits for rainscreen systems, internal partition walls and suspended ceilings have also been designed and tested within the consortium funded by the European Community's Seventh Framework Programme.

Developed primarily for commercial office buildings, the façade panel is 4.0 meters high and 2.3 meters wide and comprises a glazing unit. It is composed of two biocomposite outer shells, made of flax fabric and bio derived resin, with a central layer of insulation material. The panel is delivered to site as a fully prefabricated unit.

The faceted geometry follows a parametric approach to optimise the energy efficiency of the building. The overhanging top part of the panel can vary depending on its location and orientation. It provides shading and therefore reduces cooling loads. Because of the low thermal conductivity of the biocomposite materials, the integral shading devices allow for excellent overall thermal performance. The BioBuild team specifically developed the façade system to meet the stringent thermal, structural and fire performance requirements of building codes in Denmark, Germany, United Kingdom and Spain.

The façade has been designed with the full product life cycle in mind. All parts of the system can be easily detached from each other and either be recycled or reused at the end of the life cycle.

“This innovative product pushes the boundaries of both façade and materials engineering towards new targets by using biocomposites in an extremely demanding sector of construction. The design freedom of

biocomposites can generate a strong impact on the appearance of buildings,” explains Guglielmo Carra, Arup Germany.

JEC is a non-profit association that is dedicated to the promotion of composites. Once a year it honours the most innovative composite solutions worldwide with the JEC Innovation Awards.

Project coordinators, NetComposites, will be at JEC Europe in Hall 7.3, stand G70. The team will be available throughout the show and encourages you to book an appointment. Please contact them on +44 (0)1246 266244 or info@netcomposites.com

biobuildproject.eu

About NetComposites

NetComposites is a world leading specialist in applied composite material technologies. Through its research, consultancy, training and information services, it develops innovative, commercially successful composite materials and processes whilst helping clients and partners to benefit from better materials, manufacturing technologies and business opportunities.

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