

JEC
COMPOSITES



Discover the 2009
JEC Innovation Awards Winners

Official Partner



JEC magazine
COMPOSITES

JEC
COMPOSITES

Environment and Energy

Sea-wave energy converter
designed to produce electricity



3B Fibreglass



Partners: Fred Olsen Ltd (Norway),
Gent University (Belgium), et Spiromatic (Belgium)

The device consists of a floating platform with oscillating buoys on the water surface. Fred Olsen Ltd. decided to work as much as possible with composite materials for the structural parts and for the energy extracting and power take-off system's moving parts.

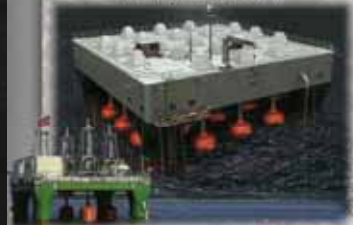
The main challenges for the lifetime and cost/performance properties of this application are:

- corrosion resistance (marine environment),
- cyclic load fatigue/aging (blades, moving parts, turbines, etc.),
- robustness, impact resistance,
- resistance to survival load conditions (storms and possible climate changes),
- maintenance,
- cost effectiveness of fixat components, modules and systems.

The natural properties of Advantex™ and InFibra™ fibreglass enable and enhance the level of required performance.

3B is reinforcement supplier and advisor within the development team. The next step is to finish defining the materials for the structural parts. The device is a component of the Wave Hub project, which aims to create the UK's first offshore facility to demonstrate and validate the operation of arrays of wave-energy generation devices. Launch is planned for 2010.

www.3b-fibreglass.com



Other finalists in the Environment and Energy category

- A reply to sea sandwich panel for windmill nacelle (leaf and root) presented by **Chemart** (France) with its partners **Niduland** (France) and **Carulmar de Composites** (Spain)
- Continuous pyrolysis process for the recovery of carbon fibre from carbon fibre-reinforced composites, presented by **Recycled Carbon Fibre Ltd** - A Member of the **Recycled Carbon Fibre Group** - A Member of the **British Carbon Group**, UK in partnership with **Borealis** (USA)

JEC
COMPOSITES

2009 JEC INNOVATION AWARDS

Category: Environment & Energy

Winner: 3B Fibreglass

Partner: Gent University

