Press release

Flying over the water: Evonik brings high-tech sailing to a new level

- Evonik and Olympic medalist Gaebler have joined forces to build a catamaran in a class of its own
- Innovative composite solutions: Demonstration of processing and process know-how
- By October 2016, a catamaran with the dimensions of a C-class multihull will be built

The German-Danish TeamGaebler and the specialty chemicals company Evonik from Essen have joined forces to bring high-tech sailing to a new level.

The new SpeedFoiler™ is an ultra-lightweight, foiling catamaran that will achieve exceptional performance. The latest carbon fiber and composite technology make it possible to fly over the water.

The specialty chemicals company Evonik offers a broad portfolio of composite and raw materials. These are, for example, sold under the brand names VESTAMIN®, VESTANAT®, NANOPOX® and ROHACELL® and such composite applications can be processed in parts of the fiber, in the plastic matrix and the foam core. Furthermore, the company has the necessary raw materials as well as the extensive processing and process know-how. With various raw materials and additives from Evonik, composites are incredibly stable despite their light weight.

The SpeedFoiler™ has the dimensions of a C-class multihull: The length is 7.62 m, and the width is 4.26 m. The mast height is 12 m. Thanks to the extremely lightweight materials and the revolutionary design of the SpeedFoiler™, it will be possible to start races from 1 knot on. The upper wind limit will be around 30 knots. Martin Fischer, an eminently respected multihull and hydrofoil designer, worked on the project.

To start with, Roland and Nahid Gaebler will use this boat to participate in some established regattas. Later, their own

02. June 2016

Contact
Carolin Kather
Communication Manager
Crosslinkers
Telefon +492365 49-9011
carolin.kather@evonik.com

Evonik Resource Efficiency GmbH
Rellinghauser Straße 1-11
45128 Essen
Germany
Phone +49 201 177-01
Telefax +49 201 177-3475
www.evonik.de

racing series is planned, the FoilingWorldCup™– a new, professional sailboat racing series with 10 tour stops in Europe, the Middle East, Asia and America.

Evonik Industries manufactures a range of products that can be found in almost all components of fiber-reinforced composites. We supply core materials for sandwich construction, thermoplastic and thermosetting resin matrices, as well as the essential components for matrices such as crosslinkers, catalysts, impact strength modifiers or processing and process additives. Some of these products are used in sizings for glass or carbon fibers, and in adhesives for joining fiber-reinforced composites. Our experts in fiber-reinforced composites think “systems,” not “products.” According to the philosophy: when you work with us, you have the support of the entire team of specialists at Evonik. In short, you talk to one, you talk to all.

VESTAMIN®

Curing agents for epoxy resins systems, chain extender for PUR systems and raw material for polyamides

Aliphatic diamines from the VESTAMIN® range are industry-standard crosslinkers for high-performance epoxy systems. Typical applications include industrial floorings, marine and anticorrosive paints. Also, high-performance composites are a major field of application. All major processing fields like Resin-Transfer-Molding (RTM), wet-pressing and also pultrusion are covered. Epoxy coatings are used as primers and intermediate layers because they offer outstanding mechanical and chemical resistance. They are extremely durable and have excellent adhesion to a variety of substrates.

VESTANAT®

Aliphatic and cycloaliphatic diisocyanate monomers for light stable PUR resins and elastomers and composites / Cycloaliphatic polyisocyanates for extremely durable coatings

VESTANAT® non-yellowing crosslinkers for 2K or 1K thermosetting PUR coatings improve performance in various applications and systems of all kind. They enable highly chemical resistant 2K and 1K systems and improve flexibility of PCM applications. Benefits are a high Tg and fast drying behavior to name but a few. VESTANAT® products can be used in solvent-borne, water-borne and solvent-free (e.g. powder coatings) systems. IPDI is characterized by its excellent compatibility for any kind of coating resin and comes with a low prepolymer viscosity. H_{12}MDI

for PUD and TPU applications exhibits high chemical resistance and excellent mechanical properties. TMDI shows also a superior compatibility and moreover an excellent performance in flexibilzation of UV resins.
The VESTANAT® M range is a new family of urethane-alkoxysilane binders and crosslinkers that provide excellent scratch resistance, especially for automotive OEM and repair coatings as well as wood coatings. This new technology is a versatile basis for high-performance isocyanate-free (NISO) technology used in both ambient-temperature-curing as well as thermosetting systems.
VESTANAT® PP is a matrix system for PUR prepregs based on aliphatic diisocyanates. It enables a completely new way of processing and an opportunity for automation on an industrial scale. Evonik's new polyurethane prepreg offers very good overall properties with very high ductility combined with superior surface properties. Preforms can be made without addtional binder and laminates can be pressed without infusion times, resulting in a shorter overall cycle time.

ROHACELL®
Foam cores for composite sandwich structures
For more than 40 years, Evonik's ROHACELL® structural foam has been offering the aerospace and automotive industries, medical technology, and other markets boundless possibilities for lightweight construction of parts or products made from high-performance composites. In such applications ROHACELL®, which is based on polymethacrylimide (PMI), is used as a core between, for example, CFRP facings.

NANOPOX®
Surface modified silica nanoparticles
Evonik is the leading manufacturer of surface modified silica nanoparticles in epoxy resins. Using NANOPOX® the performance of fiber-reinforced composites parts can be improved significantly: modulus, strength and compressive strength as well as toughness are increased. The fatigue performance is improved significantly. And due to the small particle size of 20 nm viscosity is not increased. Furthermore even close meshed fabrics are penetrated by the particles. This makes NANOPOX® suitable for all manufacturing processes like prepregging, filament winding, infusion or RTM.

About Resource Efficiency
The Resource Efficiency segment is led by Evonik Resource Efficiency GmbH and supplies high performance materials for environmentally friendly as well as energy-efficient systems to the automotive, paints & coatings, adhesives, construction, and many other industries. This segment employed about 8,600 employees, and generated sales of around €4.3 billion in 2015.

Company information
Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals. Profitable growth and a sustained increase in the value of

the company form the heart of Evonik's corporate strategy. Its activities focus on the key megatrends health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms.

Evonik is active in over 100 countries around the world. In fiscal 2015 more than 33,500 employees generated sales of around €13.5 billion and an operating profit (adjusted EBITDA) of about €2.47 billion.

Disclaimer
In so far as forecasts or expectations are expressed in this press release or where our statements concern the future, these forecasts, expectations or statements may involve known or unknown risks and uncertainties. Actual results or developments may vary, depending on changes in the operating environment. Neither Evonik Industries AG nor its group companies assume an obligation to update the forecasts, expectations or statements contained in this release.