Dear Gurit customer and partner,

Gurit is proud to bring you our latest Marine Newsletter packed with details of the exciting projects and events in which Gurit has recently been involved.

Happy reading.

The Gurit marine team

Norsepower Rotor Sail Solution

Recognising the need for more sustainable shipping fleets, Norsepower has been developing their Norsepower Rotor Sails. However, these sails are unlike any you have seen before. They are today’s version of the Flettner rotor, which takes advantage of the Magnus effect to help propel the vessel forward.

The rotor is essentially a smooth cylinder which spins on its long axis, generating aerodynamic force through the effect of the wind. As the wind meets the rotor the air flow accelerates on one side of the rotor and decelerates on the opposite side. In turn, this helps propel the vessel, increasing its fuel efficiency.

Flettner rotors on ships isn’t a new concept and was first trialed in 1924. However with the heavy materials used at the time, the technology was proven inefficient. Today, thanks to cutting edge composite materials and technology this concept has been revisited and proven a success, with trials showing a reduction in fuel costs by 5-20% and CO² emissions by the same.

In proving this technology viable, Norsepower realized the energy required to turn the cylinders must be minimal. To achieve this, weight was kept as low as possible using Gurit’s environmentally friendly PET core Kerdyn™ Green, as well as the PRIME™ 27 epoxy infusion system, Spabond™ 340LV adhesive and the Ampreg™ 31 epoxy laminating system.

The end result has been tested on three commercial vessels: a tanker, a cruise ship, and a dry cargo vessel. Across these vessels over 45,000 hours have been amassed and show a total fuel saving of over 1,500 tonnes and a reduction of CO² by over 4,500 tonnes.

Gurit’s Regional Sales Manager & Technical Sales, Piet Heydorn, was pleased to be involved with the effort.
Norsepower Rotor Sail Solution - cont’d

“This project has been an exciting and rewarding one for Gurit to be part of. The solution provides the shipping industry with a commercially viable alternative that benefits them as well as the planet, a win-win. It is also great to see this project and its benefits recognized at the JEC Innovation Awards 2020 where it is a finalist in the Maritime Transportation & Shipbuilding category.”

For more information on the Norsepower Rotor Sails: https://www.norsepower.com/

Wally 93 Nahita

When it comes to designing breathtaking yachts and powerboats that perform alongside the very best, Wally is up for the challenge. The team combine the latest technologies with contemporary design and are constantly searching to improve performance, comfort, and style. These traits are easily detected in the new Wally 93 Nahita.

Nahita has been designed as a cruiser-racer, truly offering the best of both worlds. The yacht features the latest generation hull lines seen in Wally’s wallycento super yachts and in the Maxi72 pure racers, enabling sailors to experience the ultimate in high-performance sailing.

Complementing the design is the construction. Nahita’s carbon build provides for reduced displacement and increased rigidity. Underneath the stylish deck is the social cockpit, where the innovative interior layout offers an incredible amount of comfort and space.

The yacht was constructed with a comprehensive package of Gurit products, including: SE 84LV prepreg, Corecell™ M Foam, Spabond™ 340LV, Ampreg™ 26, and T-Prime tooling paste, all supplied by our distributor, Resintex Technology.

For more information on Wally and Nahita: https://www.wally.com/
Neo 570c

Another builder to perfectly complement racing performance with high-end design, styling, and engineering is Neo Yachts & Composites with the new neo 570c.

The vision for the new Neo 570c was to create a boat that could compete with the TP52s and mini-maxis of the Mediterranean fleet, while providing a layout suitable for family cruising and shallow draft. Racing performance will be accomplished through a prepreg carbon fiber hull, deck, structure, and interior, with amenities able to be easily removed to prepare the boat for racing.

Following a year-long discussion between builder and designer to define the size and parameters of the boat, the project commenced in earnest in 2019. Working with partner and Gurit distributor, Resintex, the Neo Yachts team selected a full suite of Gurit products to achieve the weight savings needed.

The yacht is constructed from a female mould and features Gurit’s ST 94 carbon SPRINT™, SE 84 carbon prepreg, Corecell™ M foam, Ampreg™ 3X Series epoxy, and Spabond™.

According to Paolo Semeraro, the owner and director of Neo Yachts, the choice to use Gurit products was easy.

“Gurit’s long experience in certified prepreg materials made them my first choice, and our supplier Resintex helped guide the decision process.”

The much-anticipated release is scheduled in summer 2020. For more information on Neo Yachts & Composites and their new Neo 570c click here.

Compotec 2020

Compotec is the only trade event in Italy entirely dedicated to composite materials and innovation within composites. This year’s event, Compotec 2020, took place in early February and Gurit’s distributor, Resintex, was present, showcasing a wide range of Gurit products and processes.

On display were the Gurit Scales. This innovative tool ensures that the correct amounts of resin and hardener are always used by simplifying the process and confirming accurate measurements. This in turn helps minimize costly errors in production and encourages the adoption of composite products by boat builders that may otherwise be put off by the complexities of the mixing process.

A range of formulated products were also showcased, including AMPRO™ BIO. This simple to use, award winning multi-purpose epoxy system has been designed for gluing, coating, laminating and filling. The product features fast, slow, and extra-slow hardeners catering to every builder’s need and providing an environmentally conscious alternative to traditional epoxies.

One of the processes being demonstrated was thermoforming with Corecell™ M foam. Experts in thermoforming, Curve Works, using the Adapa adaptive mould technology alongside Gurit engineers, have proven this technology to provide significant resin savings. Using Corecell™ M100, 30mm thermoformed to 1200mm radius, the team found the material had a similar resin uptake to a flat plain sheet. This means a 73% resin saving is achieved in comparison to doing the same with single cut foam and 138% saving compared with contour scrim foam.

Dynamic testing of the thermoformed core also confirmed that it was able to absorb the same level of dynamic energy as the virgin material. With these results, thermoformed Corecell™ M foam is the process and material of choice for forward slamming areas that are typically curved.

Contact your local sales representative for more information about these products or for more details on what thermoforming can offer your business.
About Gurit’s Competencies for the Marine Industry

Having made its name in the high-end race boat market over 30 years ago, Gurit now supplies the full spectrum of marine projects worldwide. Production boats focusing on manufacturing efficiencies, superyachts with unique design features, commercial and military vessels requiring robust yet low weight construction, as well as current race yacht programmes looking for cutting edge performance, are all benefiting from Gurit’s complete composite solution.

Gurit supplies global growth markets such as the Marine sector, Aerospace and Wind energy with composite materials, composite tooling equipment, core material wind turbine blade kits as well as engineering services.

Gurit Marine Regional Contacts:

Customer Support

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Composite Engineering

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