

BALTIC 67

Performance cruiser



BUILT FOR PERFORMANCE

The BALTIC 67 PERFORMANCE CRUISER is a stunning monohull, designed for racing and long-distance sailing, yet still easily managed by a couple of crew. To achieve this balance, having a lightweight boat was critical. From the outset, Baltic knew that advanced composites would be essential for the construction of the BALTIC 67PC, not only for light-weighting and performance reasons, but to achieve their innovative design whilst making a versatile, easier, safer and more exciting to sail, boat.

Baltic Yachts drew on their 48 years of design and building experience to create a full composite boat, with a glass hull and full carbon deck. From concept right through each of the build stages, they worked in conjunction with Gurit Engineering and materials supply to realise their vision. By building the hull using a sandwich construction with Gurit epoxy SPRINT™ and Corecell™ M foam, Baltic were able to produce a strong, lightweight structure with a significant performance edge.

OVERVIEW

Industry

- Marine / Performance cruiser

TARGET

Hull construction for a lightweight, fast 67' cruiser

SOLUTION

Sandwich construction with Gurit Epoxy SPRINT™ and Corecell™ M Foam

BENEFITS

A strong, lightweight structure made for comfortable and speedy ocean sailing with a genuine performance edge.

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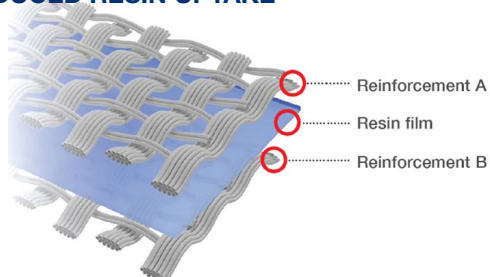


Above: The BALTIC 67PC hull being lifted-out of the mould

LIGHTWEIGHT COMPOSITES – THE MATERIALS OF CHOICE

For the hull construction, the first layer of material to be used was Gurit surfacing film, which provides a pin hole free finish, ensuring the boat was ready to paint once demoulded. Behind the surface film, Gurit SPRINT™ was used for the inner and outer skins of the sandwich construction for both the hull and deck. SPRINT™ is made by applying an epoxy resin film to a layer of either woven or multiaxial carbon or glass fabric. The resin content of SPRINT™ is carefully pre-determined during the production process to give optimal resin content for the laminate. When cured under vacuum, the dry fibre in SPRINT™ ensures good air evacuation from the laminate stack, removing the need to de-bulk and resulting in a low void content laminate. Another key benefit of SPRINT™ is the high temperature performance, eliminating print-through even on dark hulls, leading to a first-class finish and longer life cycle. Alongside the SPRINT™, Gurit adhesive film was also used to secure the core in place.

THERMOFORMED CORECELL™ M FOAM, FOR REDUCED RESIN UPTAKE



To further lightweight the hull structure, the Corecell™ M foam which formed the centre of the sandwich construction was thermoformed to the correct shape, considerably reducing resin uptake. Corecell™ M foam is a SAN structural foam core, well known for its unmatched toughness and impact resistance, making it the perfect choice for slamming areas such as hulls. To complement the use of Gurit SPRINT™ and Corecell™, a full range of Gurit epoxy resins and adhesive products were used for the fit out, including: Gurit mono component paste for bridging any gaps between the Corecell™ and SPRINT™ and creating seamless fillets, and Ampreg™ 31 Laminating system and Spabond™ structural adhesive for securing bulk heads in place and structural bonding.



Left: Gurit SPRINT™ construction.
Above: Spabond™ adhesive used for structural bonding

A TRULY MAGNIFICENT EXAMPLE OF MODERN COMPOSITE DESIGN

Using a full package of Gurit materials for the BALTIC 67PC construction ensured full compatibility, providing much-needed peace of mind required for such a high-performance vessel. To date, 3 of the BALTIC 67PC's have been built, each one based on the same tried and tested design for the hull, whilst also allowing clients the freedom of choice to personalise the yacht's interior to suit their needs and taste.

The BALTIC 67PC is a spectacular example of modern composite design and engineering coupled with high tech materials, built by the skilled Baltic Yachts workforce, using leading edge marine technology and traditional craftsmanship to create award-winning yachts. Baltic Yachts: Lighter, Stiffer, Faster, Greener – Together.

About Baltic Yachts

Baltic Yachts is a world leading builder of advanced composite yachts. Their highly skilled workforce uses leading edge marine technology and traditional craftsmanship to create award-winning yachts. Each yacht is unique, unmatched in its quality, unmatched in its performance. Through their deep understanding of advanced composite materials like carbon fibre, they build luxury yachts, which are lighter, stiffer and faster. Controlling weight, maximising performance and using a rigid, precision-engineered structure provide the platform for the best possible sailing experience.

www.balticyachts.fi

About Gurit

Composite Materials

The companies of Gurit Holding AG, Wattwil/Switzerland, (SIX Swiss Exchange: GUR) are specialized on the development and manufacture of advanced composite materials, related technologies and select finished parts and components. The comprehensive product range comprises fiber reinforced prepregs, structural core products, gel coats, adhesives, resins and consumables. Gurit supplies global growth markets with composite materials on the one hand and composite tooling equipment, structural engineering and select finished parts on the other. The global Group has production sites and offices in Switzerland, Italy, Spain, the U.K., Poland, Canada, the U.S.A., Ecuador, New Zealand, India, and China. For more information, please visit www.gurit.com

Composite Engineering

Gurit Composite Engineering is the specialist consulting arm of Gurit Group, providing independent services within the field of Structural Engineering for Fibre Reinforced Polymers (FRP) and Carbon Fibre Reinforced Polymers (CFRP) since the 1980s.

A core team of around 40 qualified and dedicated composite engineers in the United Kingdom, France and New Zealand offers independent composite engineering services to designers and manufacturers and has a solid track record of key engineering services for racing boats, superyachts, production boats, workboats, cars, buses, civil and architectural structures as well as industrial components worldwide.