MARINE
EPOXY RESIN SYSTEMS FOR MARINE

It’s all in the Chemistry
www.sicomin.com
Sicomin has provided innovative epoxy resin solutions to the marine market for more than 40 years, supplying a complete range of tooling materials, resins, adhesives, reinforcements, core materials and ancillary products to leading yacht and ship builders around the world.

Dedicated to long term partnerships with marine industry specialists, Sicomin provide expert practical knowledge and technical support, whilst also striving to develop composite solutions that have less environmental impact on the oceans themselves. Sicomin’s market leading GreenPoxy™ range of bio-based epoxies enable more sustainable construction with uncompromising performance.

Many of Sicomin’s marine specific products have also received DNV GL type approval, providing ship, yacht and board manufacturers with reassuring 3rd party confirmation of the products’ exceptional quality, performance and consistency.
Infusion Systems

INFUGREEN 810
High-performance bio-epoxy system for infusion.

- Up to 38% bio-based carbon content.
- Very low viscosity clear system for infusion of small to very large parts, including very thick laminates.
- Room temperature infusion system.
- Choice of hardeners to adjust cure times.

sr8100
Low viscosity epoxy system formulated for resin transfer processes such as injection or infusion.

- Particularly cost effective for infusion production methods.
- Very low viscosity at ambient temperature cure.
- Different hardener speeds allow the moulding of small to very large parts with rapid demoulding time.

sr8100 datasheet

enata chooses sicomin epoxies for unique high performance foiler

Low viscosity epoxy systems such as injection or infusion processes.

- Configurations options when driving, and working with the foils to provide the impressive lift at up to 40 knots and in varying weather conditions.
- 3D printed carbon wingfoils provide high strength and stiffness, particularly in highly loaded structures like the FOILER.
- ENATA's philosophy is defined by high performance, usability, and ease of maintenance.
- The propulsion system comprises twin 300HP diesel/electric hybrid engines, which work with custom electric torpedoes, providing different fuel options for more 'conventional' motoring at the moored, care and maintenance of the system is straightforward.
- The ENATA FOILER is a radical evolution in motor yacht design with its unique hydro-foiling configuration options when driving, and working with the foils to provide the impressive lift at up to 40 knots and in varying weather conditions.
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- Bond movie!
**SR1710**

Extremely high-performance structural epoxy system for resin transfer processes such as infusion and injection.

- Very low viscosity.
- Low reactivity hardener for large part manufacturing.
- Very high mechanical properties, especially inter laminar shear strength.
- Excellent retention of mechanical properties in a wet environment.

**GREENPOXY® 33**

Bio-based hand laminating system.

- Up to 35% bio-based carbon content.
- A high-performance bio epoxy resin.
- Fast curing, clear laminate.
- High mechanical properties.
- Excellent wetting out properties resulting in a low resin consumption.

**CASE STUDY**

By switching the epoxy system for the hull and deck to Sicomin's SR1710 infusion product, Candela now benefit from a cleaner and more consistent process technology whilst also producing laminates with extremely high mechanical properties and an impressive Tg of xx˚C after post cure. SR1710 has also been shown to deliver excellent performance in hot and wet conditions, critical for Candela in such a highly loaded foiling craft.

Bonding of the Candela 7's internal structures and final assembly of the finished craft has been designed around Sicomin's flagship epoxy adhesive, Isobond SR7100TH. Formulated for both thick and thin bond lines, SR7100TH comes with several different hardener speeds and provides a user-friendly bonding solution that is particularly resistant to micro-cracking in long term fatigue testing.

In common with other key marine sector focused products in the Sicomin range, both SR1710 and Isobond SR7100TH carry DNV-GL Type Approval.
Sicomin epoxies can be tailored for all production parameters.

**SR1280**

Epoxy system for hand laminating, infusion, tooling and casting.

- Choice of variety hardeners to adjust reactivity.
- Hardeners SD 4771, SD 4773 and SD 4775 are certified for shipbuilding by DNV-GL.

**SR8500**

Multi-purpose epoxy system suited to a wide range of marine composite components.

- Excellent mechanical properties. Working temperatures up to 70°C.
- Simple mixing – One resin and two hardeners, mixable in any proportions, to customise the reactivity.
- SR 8500 Black Gel thixotropic formulation also available.

**SR8500**

Marine products approval for key Lloyds Register Type DNV GL and

**SR8500**

Lloyds Register Type approval for key Marine products.
GREENPOXY® 56

Multipurpose bio epoxy solution.
- Up to 51% bio-based carbon content.
- Achieves tough and hard wearing gloss laminates.
- Suitable for laminating, injection moulding, filament winding, press processes and casting.
- Guaranteed supply in industrial tonnages.

Sustainable materials with uncompromising performance.

ISOBOND SR7100

Highly structural epoxy adhesive for thin or thick bonding.
- Formulated for thick and thin bond lines.
- Resists high stress in fatigue (excellent against propagation of microcracks).
- Application on non-porous surface materials is possible.

Complete package of composite materials for Marine
**Foaming Solutions**

**PB 170, 250, 400 and 600**

Tough and resilient ambient curing epoxy foams.

- Densities obtained are approximately 170, 250, 400 and 600 kg/m³ respectively (open mould expansion at 23°C).
- Can be poured onto and co-cured with prepregs or other epoxy laminates.
- Standard foam colour is white, can be coloured with epoxy compatible pigments.
- 2 stages reaction, gentle expansion followed by slow hardening of the foam.
- Adhere to a wide range of materials.
- CFC free and highly water resistant.

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**ISOBOND SR7200 HTG**

High Tg structural epoxy adhesive.

- High performance adhesive with Tg max of 80°C.
- Specifically formulated for thick and thin bond lines.
- High fatigue strength and resistance to microcracking.
- Adheres to most materials.
- Gel texture for easy mixing and application.

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Market leading range of GreenPoxy® bio-based epoxies available.

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For more information, visit [sicomin.com/processes/foaming](http://sicomin.com/processes/foaming)