



# GREENPOXY® BIO-BASED SYSTEMS

SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

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It's all in the Chemistry

[www.sicommin.com](http://www.sicommin.com)

With the world continuing to need products that are less harmful to the environment, Sicomin believes strongly in the development of sustainable composite materials and continues to invest considerable resource and expertise into developing new, bio-based systems derived from renewable resources.

Sicomin's GreenPoxy® range, developed and manufactured in France, offers the largest range of next generation bio-based epoxy resin systems on the market today, some produced with up to 51% of bio-carbon content deriving from plant and vegetable origin (ASTM D6866).

Matching the performance of non-bio systems, GreenPoxy® has created a wide following and is now used in a variety of markets such as marine structures, water and winter board sports, construction, automotive and electric vehicles. With its recently expanded manufacturing capability, Sicomin can provide commercial scale capacity for the largest of industrial applications with no performance compromised.



## GREENPOXY® 28



A bio-based epoxy resin aimed specifically at HP-RTM processing techniques.

- Up to 28% bio-based carbon content\*.
- Fast cycle, low toxicity, third generation bio-based formulation.
- Can be used for both high performance structural parts and aesthetic carbon fibre components.
- Optimised for fast production cycle times and superior mechanical performance.
- Available in industrial quantities typically required by Automotive OEM's.

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## SGI 128



VIEW  
SGI 128  
DATASHEET



A bio friendly intumescent gelcoat.

- Up to 38% bio-based carbon content.
- Exceptional fire performance.
- Halogen free with low smoke toxicity.
- Hardwearing weatherproofed finish for exterior applications.
- Available in industrial volumes.
- Tested to EN 13501 (EUROCLASS B-S1-d0) and ASTM E84 (Class A).

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“SicomIn’s GreenPoxy® technology delivers supreme mechanical performance whilst enabling sustainable manufacturing practices.”  
ZAG



VIEW  
GREENPOXY® 28  
DATASHEET

Available in  
industrial  
volumes.





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## INFUGREEN 810



A bio solution 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.

**CASE STUDY**

**SICOMIN'S GREENPOXY® BIO-BASED RESINS - SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE FOR THE GREENBOATS® FLAX 27**

GREENBOATS® has been producing innovative natural fibre composites at their Barmen factory for more than a decade, expertly crafting a range of marine and industrial products with a mission to use 100% renewable and sustainable raw materials in sandwich composite structures.

Sicomin has partnered with GREENBOATS® since the very beginning, with THE OCEAN Composites - Sicomin's German distributor - supplying materials and technical support to hardenation and infusion production processes. These have been optimized for natural fibre composites.

The FLAX 27, an 8.2m classically styled daycruiser designed by renowned naval architect Ludovico & Co. is the most complex, no compromise, natural fibre composite project realized by GREENBOATS® to date. The hull, deck and internal structure of the vessel were infused with Sicomin's new bio-based GreenPoxy INFUGREEN 810 resin and Res Flow reinforcement fabric.

Sicomin infusion with Sicomin's INFUGREEN 810 produced crystal clear, natural fibre laminates with outstanding mechanical properties, while the closed mould process also improved working conditions in the factory. Available with a choice of hardeners to adjust the curing time as required, INFUGREEN 810

GreenPoxy DNV-GL

READ CASE STUDY

VIEW  
INFUGREEN 810  
DATASHEET



## GREENPOXY® 33



A bio solution for compression moulding.

- 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.

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bio-based-epoxy



**CASE STUDY**

**SONTAG FINS CONFIRM GREENPOXY® 33 AS BEST SOLUTION FOR CUSTOM CARBON WINDSURF FINS**

Sicomin's latest marine collaboration sees its industry leading GreenPoxy® bio based epoxy resin used for custom carbon fibre windsurf fins, combining speed, fatigue performance and sustainability for some of the fastest water athletes.

Being Sontag's owner and founder of Sontag Fins, he has been involved with manufacturing since the 1970s and decided to launch the company's custom carbon fibre windsurf fins in 2020. Using the latest composite materials, new research methods, CNC machined decks and resin infusion, a fully integrated solution package for innovation, design, calculation and testing. Sontag has chosen for ultimate performance and economy.

With this in mind, being intent to work with the best composite resin on the market, Sontag contacted Sicomin. After the company's recommendation, Sontag's search for a resin system that could meet their needs for custom manufacturing ended. The final choice was GreenPoxy® 33, a bio-based epoxy resin which allowed immediate results, making them a true choice. With mechanical properties that exceeded their expectations.

In 2020, Sontag and Sicomin Composites received the top of an award for sustainable resin system. It was the perfect time for Sontag Fins, with their unique green 33 windsurf fins, to go green on the water too with Sicomin's GreenPoxy® 33 resin.

All of this attention to detail and complete manufacturing process is a testament to the performance and consistency of the resin materials used in each fin. This is made possible by the excellent wetting out properties, the ability to be laid up in the lab and on the water by the winders.

Now this resin is produced with the new material processing technology, the resin is now being used at 140°C, with the new GreenPoxy® 33 resin showing significant higher elongation at maximum modulus, ensuring the used resin was as tough and consistent to the high speed customer's demand. With mechanical properties that exceeded their expectations.

READ CASE STUDY



VIEW  
GREENPOXY® 33  
DATASHEET



### SURF CLEAR EVO



VIEW SURF CLEAR EVO DATASHEET

A bio solution for hand laminating and coating

- Up to 37% bio-based carbon content.
- Provides the highest UV resistance of all the Sicomin clear resins.
- Specifically developed for the construction of surf and windsurf boards.
- High gloss appearance for transparent laminates, clear carbon parts, wooden components, and decorative goods.
- Self-levelling, sandable and scratch resistant.

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### GREENPOXY® 56



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Multipurpose bio 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.

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**CASE STUDY**



**SICOMIN'S GREEN EPOXY USED TO MANUFACTURE ARCHER CORK COMPOSITE SKATEBOARD, WINNER OF THE JEC ASIA 2014 INNOVATION AWARD**

Sicomin has collaborated with Archer Cork Skateboards to provide a dynamic direction in environmentally responsible composite technologies.

Archer Cork Skateboards is an Australian company committed to producing products that have been awarded in the most sustainable and sustainable way possible.

Their boards utilize a combination of cork bark veneer for the main deck, Kevlar for the nose and tail, and Sicomin's Green Epoxy 56 resin to bond all the elements together.

Over 50% of Green Epoxy 56's molecular structure is derived from plant and vegetable sources, making the product an advanced, environmentally enhanced, clear and non-toxic system that delivers a tough and hard wearing laminate surface.

Sicomin's Green Epoxy 56 resin is a high performance, clear, UV resistant, and scratch resistant epoxy resin. It is specifically formulated for use in the construction of high performance composite parts and structures.

The combination of the product's flexibility and the natural cork bark veneer for construction, means the cork board is able to absorb and dissipate energy, reducing vibration and a higher impact resistance.

The flexibility of the resin continues perfectly with the cork veneer, which also has other characteristics. The resin is used for strength and

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Innovative formulations match the performance of non-bio systems.

The largest range of bio-based systems on the market.

**CASE STUDY**



**KETOS ALL CARBON EPOXY KITE FOILS AND BOARDS WITH SICOMIN EPOXY SOLUTIONS**

Sicomin has been supplying the marine industry's innovators and partners for more than 50 years, manufacturing high performance epoxy resin, gelcoats and casting systems for storage, lighter and faster marine craft around the world. As the development of foiling - where a board or boat flies above the water supported by hydrofoils - continues, Sicomin work alongside some of the sport's most innovative athletes, providing the composite strength within these spectacular flying machines.

Ketos - based in Ales Les Bains near the beautiful Lake Bourget - is the foil brand developed by the team behind K2 Composites, who have been manufacturing advanced composite components for leading sporting brands such as Salomon, Boardcraft, Maui and Sup'Air for more than 30 years. Sicomin has supplied composite materials to K2 since 1980, making them the number one choice when the company started to develop foils for kitesurfing in 2000.

The Ketos range of foilboard boards and foil is an entirely in-house creation, with conception, design, engineering, prototyping, manufacturing, marketing and distribution all managed by the Ketos team. Focused on performance but also on making the sport accessible to more riders, Ketos foil packages can be tailored to match the user's ability and preference for speed, ease or handling.

Ketos foil sets are made up of 4 carbon fibre components - the vertical mast separates the board and the foilage which has different profile base and tip angle choices. A key part of the Ketos concept is that parts should be interchangeable, making easy to ideas to change foil for different conditions, upgrade components as their skill levels increase or replace a damaged part while it is

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### PB 360 GS



New bio-foaming epoxy.

- Up to 37% bio-based carbon content.
- Allows 'in situ' production of a shaped low-density epoxy foam core.
- Two-part system.
- Offers good adhesion to a variety of materials and low water absorption.
- Particularly suited to foam cored components with lightweight glass, carbon or natural fibre laminates.

“Our goal is to really get people excited about Natural Fibre Composites. Sicomin’s GreenPoxy® products help us create sustainable composites with no compromise in performance or appearance.”  
GREENBOATS®

**CASE STUDY**

**SICOMIN EPOXY RESINS AND ADHESIVES – POWERING QUIET AND CLEAN FLIGHT AT CANDELA BOATS**

Sicomin, the leading formulator and supplier of epoxy resin systems and high performance composite solutions is proud to announce the qualification of its epoxy resin system and adhesive products for the sales production of Candela's groundbreaking new all electric, flying boat.

Candela Aviation, the Candela 7 is a single 7.7m open motorboat that combines carbon fibre construction and hydrofoils to create a near silent 100% electric craft with a range of 500 nautical miles (25 knots) on a single charge. Absolute focus on weight reduction is the key to the game changing performance. With a wet weight of only 1300kg the Candela's is 40-50% lighter than a traditional glass fibre boat but powered boat.

Composite engineering work by Candela's design and engineering team, experts with backgrounds in aeronautics, composites, sailing yachts and automotive engineering, delivered a fully flying carbon fibre hull and deck structure capable of supporting the 250kg battery pack whilst only weighing 240kg itself.

Sicomin joined the project at an early stage, working with Candela to supply high performance epoxy laminating resin for the manufacture of the initial prototype resin. With the ramp up of series production, the company has also been able to support Candela's targets to industrialise the production process, providing material and process support that are then validated with evidence on the water testing.

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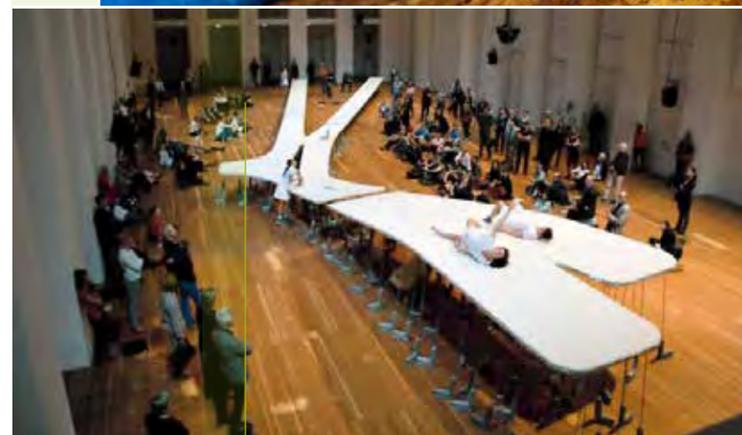
### GREENCAST 160

River table cosmetic casting

- High clarity, UV resistant epoxy system
- 40% bio-based carbon content
- Low reactivity for thick casting pours



VIEW GREENCAST 160 DATASHEET



### SR FIREGREEN 37



VIEW SR FIREGREEN 37 DATASHEET

A more sustainable fire retardant hand laminating system.

- Intumescent epoxy resin system with 25% bio-based carbon content.
- Halogen free with low smoke opacity and toxicity.
- Range of hardeners to adjust cure times.

www.sicomin.com/construction





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