GreenPoxy®

Sicomin Epoxy Systems

GREENPOXY®
BIO-BASED SYSTEMS

SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

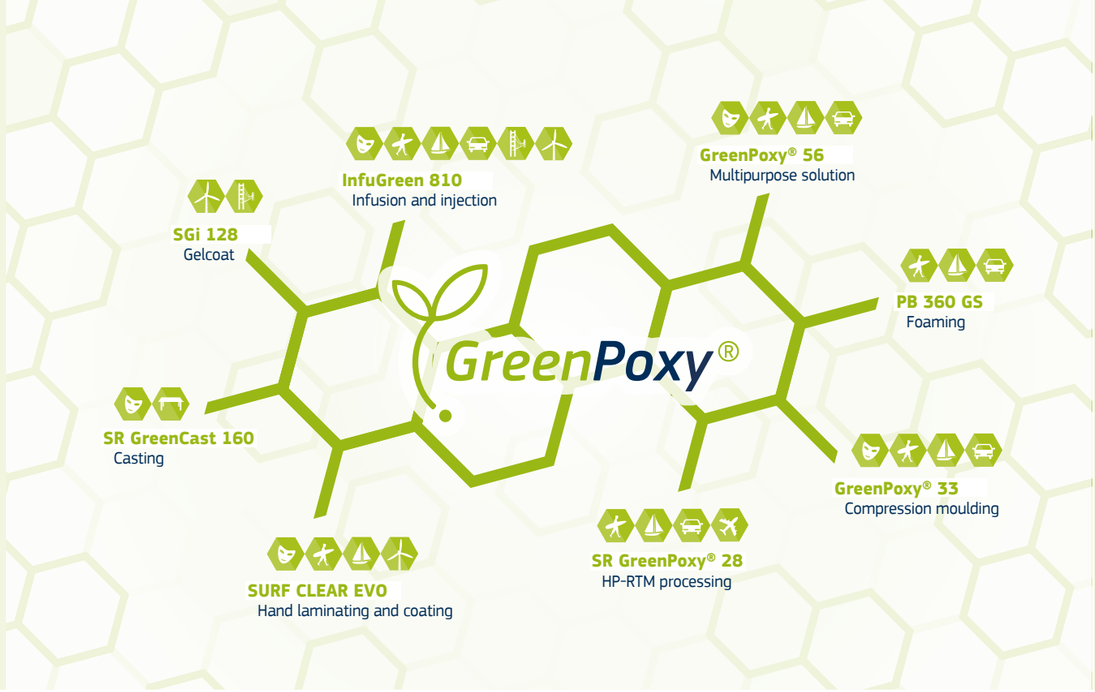
It's all in the Chemistry

www.sicomin.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® BIO-BASED SYSTEMS

SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

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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"Sicomin's GreenPoxy® technology delivers supreme mechanical performance whilst enabling sustainable manufacturing practices."
ZAG

VIEW GREENPOXY® 28 DATASHEET

GREENPOXY® BIO-BASED SYSTEMS
SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

*Bio-based carbon content dependent on hardener choice.

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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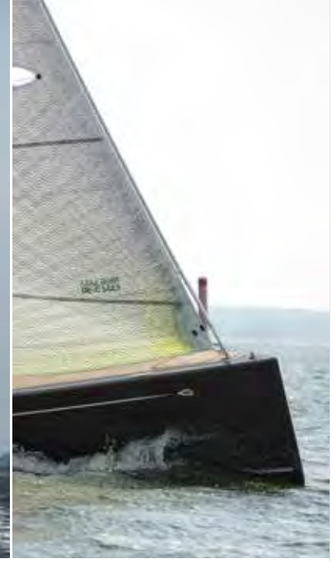
Available in industrial volumes.



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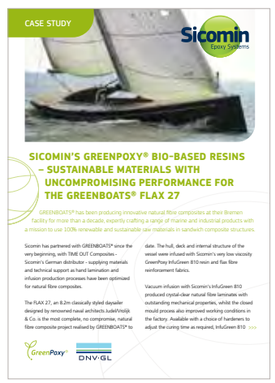
bio-based-epoxy

INFUGREEN 810

DNV·GL

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.



READ CASE STUDY

VIEW
INFUGREEN 810
DATASHEET

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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.

READ CASE STUDY

VIEW
GREENPOXY® 33
DATASHEET

GREENPOXY® BIO-BASED SYSTEMS
SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

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

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

Sicomin has been supplying the marine industry's innovators and pioneers for more than 35 years, manufacturing high-performance epoxy resins, adhesives and coating systems for stronger, 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 artisans, providing the composite strength within these spectacular flying machines.

Ketos – based in Aix Les Bains near the beautiful Lake Bourget – is the foil brand developed by the team behind 3G Composites, who have been manufacturing advanced composite components for leading sporting brands such as Salomon, Beuchat, Mavic and Sup'Air for more than 30 years. Sicomin has supplied composite materials to 3G since 1990, making them the number one choice when the company started to develop foils for kitesurfing in 2009.

The Ketos range of kitefoil boards and foils 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 new riders, Ketos foil packages can be tailored to match the user's ability and preference for speed, wave or freestyle sailing.

Ketos foil sets are made up of 4 carbon fibre components – the vertical mast separates the board and the fuselage which has different profile front and rear wings attached. A key part of the Ketos concept is that parts should be interchangeable, making it easy for riders to change foils for different conditions, upgrade components as their skill levels increase or replace a damaged part whilst it is ...

READ CASE STUDY

GREENPOXY® BIO-BASED SYSTEMS

SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

GREENPOXY® 56

VIEW GREENPOXY® 56 DATASHEET

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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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 assembled in the most eco-friendly and sustainable way possible.

Their boards utilise a combination of cork bark sheets for the main laminate, flax fibres to add torsional strength and stiffness, and Sicomin's Greenpoxy 56 resin to bond all the elements together.

Over 50% of Greenpoxy 56's molecular structure is derived from plant and vegetable matter, making the product an advanced, environmentally enhanced, clear and waterproof system that delivers a tough and hard wearing laminate surface.

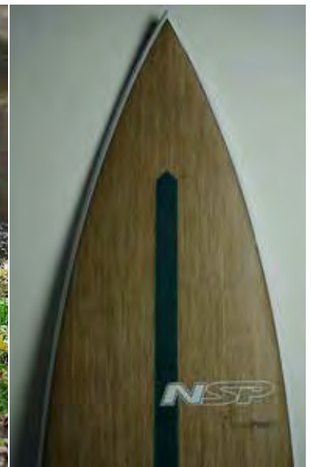
Simon Heading, Composite Technician and Archer's Founder and Designer explains, "Sicomin's Greenpoxy displays one of the highest contents of bio-based ingredients available and really complements the other sustainable resources used.

The combination of the product's formula and the material employed for construction, means the cork board displays an extraordinary reduction in vibration and a higher impact resistance".

The flexibility of the cork combines perfectly with the flax reinforcement, which also has similar characteristics. The flax fibres are used for strength ...

READ CASE STUDY

Innovative formulations **match the performance** of non-bio systems.



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PB 360 GS

USDA CERTIFIED BIOBASED PRODUCT

VIEW
PB 360 GS
DATASHEET

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.


CASE STUDY

Sicomin epoxy systems

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 infusion resins and adhesive products for the series production of Candela’s groundbreaking new all electric foiling boat.

Crafted in Sweden, the Candela 7 is a stylish 7.7m open motorboat that combines carbon fibre construction and hydrofoils to create a new silent 100% electric craft with a range of 50 nautical miles (at 25 knots) on a single charge. Absolute focus on weight reduction is the key to this game-changing performance. With a wet weight of only 1300kg the Candela is around 45-50% lighter than a traditional glass fibre fossil fuel powered boat.

Composite engineering work by Candela’s design and engineering team, experts with backgrounds in aeronautics, composites, foiling yachts and automotive engineering, delivered a fully foiling carbon fibre hull and deck structure capable of supporting the 230kg battery pack whilst only weighing 240kg itself.

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

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“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®

GREENPOXY® BIO-BASED SYSTEMS
SUSTAINABLE MATERIALS WITH UNCOMPROMISING PERFORMANCE

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GREENCAST 160

VIEW
GREENCAST 160
DATASHEET

River table cosmetic casting

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

SR FIREGREEN 37

GreenPoxy®

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.

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construction

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