



SICOMIN'S INFUGREEN 810 GREENPOXY USED FOR INFUSION OF THE NEW COUACH FLY 86/2600 MOTOR YACHT

The Largest Bio-Epoxy Hull To Date

Nestled in the beautiful Arcachon Bay near Bordeaux, France, the Couach Naval Shipyard has been building exceptionally crafted vessels since 1897. As builders of both motor yachts for the leisure market and professional vessels for military, customs, and other government authorities, Couach takes great pride in its engineering standards, quality of construction and precise understanding of the customer's requirements.

With a long history of building in composites, Couach has developed highly efficient vacuum infusion processes to build hull, deck, superstructure, and other components for their vessels. Whilst Couach has traditionally used polyester resin systems, Sicomin has been a key strategic supplier of composite materials to the shipyard for more than 15 years, supplying a range of reinforcement fabrics, cores, release agents and vacuum consumables throughout this period. For more than four years, Sicomin has worked with the Couach R&D team on a test program to explore the benefits of epoxy resin systems in the shipyard's production, culminating in the successful implementation of GreenPoxy® bio-based epoxies in the latest addition to the Couach model range.

Dynamic design and respect for the environment

Combining comfort, safety and performance with best in class accommodation options and storage

solutions, the dynamic new Fly 86/2600 model provides an exceptional experience afloat. The 26m vessel blends an innovative design and layout with the latest in sustainable epoxy composite construction. Sicomin's InfuGreen 810 bio-based epoxy infusion resin was used to manufacture the Fly 86/2600 hull, deck, and superstructure, producing a lighter, more durable yacht, and reducing overall fuel consumption significantly. With 38% of its carbon content from plant based sources, InfuGreen 810, part of Sicomin's market leading GreenPoxy range of bio-based resins, has been formulated to provide a more sustainable vacuum infusion resin with uncompromising performance.

Detailed preparations enable seamless transfer to epoxy infusion

With the testing program complete and backed up by the 3rd party quality assurance of InfuGreen 810's DNV GL type approval, Couach prepared to infuse



the 2600 Fly hull. First, Sicomin supplied release agents compatible with their epoxies and vacuum consumables that had been well proven in Couach production before this first major epoxy resin application. Then, the highly engineered E-glass laminate including sandwich core sections and a range of stitched multiaxial, woven, and unidirectional fabrics was assembled in the hull mould. For the final pre-production stage, Couach installed its in-house developed monitoring system to ensure the integrity of the vacuum and monitor the process conditions during the infusion itself.

Infusion of the first Fly 86/2600 hull was completed by Couach technicians with Sicomin's technical team also onsite to support the process and observe the largest hull to date produced with their leading bio-epoxy system. Both Couach and Sicomin were delighted with the results and noted the easy mixing, controllable hardener speed and excellent wet out resulting from the new process. Building on this initial success, InfuGreen 810 was also used for deck and superstructure components with GreenPox 33 bio-based hand laminating resins used for secondary bonding in the yacht's final assembly.

"Our InfuGreen 810 resin really does offer the optimum solution for infusion in a large structure such as the Fly 86/2600," comments Philippe Gruaud, Head of Technical Sales for Western France, Sicomin. "The significantly lower viscosity and increased fibre wetting enable rapid, controllable and void free infusion of the laminate, particularly when using heavyweight multiaxial and woven reinforcement plies. It's not just a more sustainable option, it's the best technical option for a project like this."

With the first of the new Fly 86/2600 series launched earlier this year, and now providing its owner with a sublime cruising experience, Couach currently has hull number two in production.

"With Sicomin's InfuGreen 810 we have been able to build our Fly 86/2600 yacht in a more responsible and sustainable way, whilst also producing a lighter, stiffer and more durable composite structure that reduces our impact on the environment. With superb processability, the added assurance of DNV GL type approval, and the technical support provided by the Sicomin team, our production team, as well as our customers, really appreciate this latest development. For sure, this is only the first of many yachts to be infused with InfuGreen 810 at Couach." Couach.

As composite manufacturers continue their integration of bio-based epoxy systems in ever larger structures, Sicomin is delighted to be able to support innovative shipyards such as Couach. The company looks forward to working with Couach to maximize both the environmental and performance benefits of bio-epoxies in large numbers of pleasure and professional vessels in the future.