



## ENATA CHOOSES SICOMIN EPOXIES FOR UNIQUE HIGH PERFORMANCE FOILER

The ENATA FOILER is a radical evolution in motor yacht design with its unique hydro-foiling system effortlessly flying the yacht 1.5m above the waves. Stable and smooth in flight, ENATA has designed the FOILER to deliver the comfort of a luxury yacht with the performance and handling of a super car. Sicomin has worked with ENATA since 2016 and was the natural choice when it came to the selection of epoxy resins for the project.

The FOILER brings together various features, making it stand out from the 10m motor yacht crowd, not least because its sleek exterior design reminds you of a vessel that could easily appear in the next James Bond movie!

Its four patented foils enable the hull to fly 1.5m above the water, providing a comfortable ride at full speed and allowing the FOILER to make smooth and speedy turns, much like you'd expect from a supercar. The fully retractable foils, which do not intrude or impact on the living space, also give options for more 'conventional' motoring at the touch of a button; and with the foils retracted when moored, care and maintenance of the system is straightforward.

The propulsion system comprises twin 300HP diesel/electric hybrid engines, which work with custom electric torpedoes, providing different fuel configuration options when driving, and working with the foils to provide the impressive lift at up to 40 knots and in varying weather conditions.

ENATA's philosophy is defined by high performance, and to achieve this across all their applications - from World Championship-winning aerospace designs to kite foils to architectural projects – designs are underpinned by advanced composites technology. The clear construction choice for the FOILER was infused carbon fibre and epoxy resin. Carbon fibre provides high strength and stiffness, particularly required for the four foils, and enables the



construction of a lower weight hull allowing full lift to be achieved with the hybrid drive system. This performance wouldn't be possible with a typical heavier E-glass structure. ENATA chose Sicomin's advanced epoxy infusion and laminating systems for the hull and structure of the Foiler, combining excellent mechanical performance with optimised processing characteristics. Epoxy resin is significantly stronger than alternative resin types, has good fatigue performance and durability, and is proven to work well when combined with carbon fibre in highly loaded structures like the FOILER.

Sicomin's SR8100 epoxy system was used, having been specially formulated for resin transfer processes such as injection or infusion. The system has a very low viscosity at ambient temperature and can be used with different hardeners for the moulding of

small or large parts, with fast demoulding time. In addition, the Germanischer Lloyd certification approval for the SR8100 resin system provided ENATA with further validation of the quality and consistency of Sicomin's products.

"We have worked with Sicomin on various projects over the last few years and have every confidence in the high quality products they supply," says Sylvain Vieujot, Founder of ENATA. "Our kite board production, for example, uses Sicomin's bio-based resins, and we use their various infusion and laminating systems in our aerospace, industrial and architecture projects. ENATA has brought together a team of people with extensive experience in advanced composite structures, and we appreciate the support of a highly technical and responsive company like Sicomin. Their standard products never fail to deliver on our high expectations, and we know we can work with them to deliver custom products when needed."

Sicomin has worked within the marine industry for over 30 years, with an impressive range of epoxy systems available for a variety of processing techniques, including: infusion, RTM, pultrusion, hand lay-up and on-site prepregging; foaming systems; as well as products for casting, fairing, bonding and coating.

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