



ULTRA LIGHTWEIGHT RS AERO CONSTRUCTED WITH SICOMIN'S SR 8500 ADVANCED EPOXY

With over 460 RS Aeros already sold, this single handed dinghy is proving a popular choice for sailors all around the world. Sicomin's SR 8500 multi-purpose epoxy was specified during the construction of all the boats and thanks to its excellent mechanical properties and robust formulation, has helped significantly reduce weight whilst providing supreme strength and stiffness to the laminated regions of the structure.

Design and Specification

The RS Aero is the product of a 3 year development programme undertaken by UK sail boat manufacturers RS Sailing. The brainchild of experienced sailboat designer Jo Richards, every aspect of its simple shape has been considered in order to minimise weight and maximise cost efficient manufacture without compromising looks or performance. The ultra- lightweight 30kg vessel is quick to rig, light to launch and exhilarating to sail and positioned as the perfect club racing boat.

During the materials specification process, Sicomin's exclusive UK Distributor, Matrix Composites, worked closely with RS Technical

Director Alex Newton-Southon and Martyn Miller, RS Technical Department. As a team of knowledgeable composites experts, Matrix provided support and assistance from the very outset of the project and throughout the prototyping and build programme.

In order to achieve the goals of weight reduction, strength and stiffness, Sicomin's SR 8500 was recommended for the hull, deck, hiking region of the deck, gunwales and transom. The RS Aero benefits from glass fabric in the hull and deck and significant use of biaxial and unidirectional carbon fibre in the high load areas.



Advanced Epoxy SR 8500

Especially formulated for the construction of large components, SR 8500 is a robust and straightforward product to work. It is a popular choice for many superyacht, racing boat and dinghy manufacturers and has achieved Germanischer Lloyds and Lloyds Registry approval.

SR 8500 remains crystallization free for up to two years and is categorised as a low toxicity epoxy therefore offering enhanced Health and Safety benefits. It also demonstrates excellent TG1 and does not contain reactive diluents or solvents that often weaken the silicon bags used during the vacuum infusion process. This has obvious benefits in terms of the bags life span and reducing costs.



With a customised range of hardeners, SR 8500 can be blended to different ratios to adjust working times and provide greater flexibility. When used with Sicomin's Ultra-fast Hardeners, this combination acts as an accelerator that is perfect for small part production. In contrast, Sicomin's Ultra-Slow Hardener range has been adapted for large part manufacturing that requires a post curing process at 40 °C before removal from the mould.

For the RS Aero, Sicomin's SD 8603 Slow Hardener was applied in the hull and deck areas whilst SD 8605 for the hull to deck joint offered very rapid reactivity levels.



Martyn Miller of RS Sailings Technical Department comments, "SR 8500 is a proven and reliable formulation that delivers consistent results. Matrix provided our team with excellent technical support and shared their extensive knowledge of Sicomin's epoxy resins to produce the strongest, lightest most durable laminates possible".