



SICOMIN'S ADVANCED EPOXIES REACH NEW HEIGHTS IN THE 'SLING' RANGE OF AIRCRAFT

The Airplane Factory (TAF) is a South African business focused on the development and manufacture of high quality, sports and utility aircraft. The company occupies facilities at Tedderfield Airpark in the south of Johannesburg, an ideal venue for aircraft development, manufacture and testing. Sicommin and their South African composite materials distributor, Aeronotec, have been working closely with TAF's engineers to develop enhanced and efficient production methods for the flagship range of 'Sling' aircrafts.

The Sling is a competitively priced, high performance, lightweight aluminium and composite aircraft which can be purchased as a fully constructed and test flown aircraft or as a home build kit. Previously the composite undercarriage was wet laminated and then cut to shape. However, the very thick glass epoxy laminate was difficult to laminate and trim so TAF began seeking a more efficient and less labour intensive alternative.

With Aeronotec's guidance, the original wet lamination process was replaced through the development of a new net-shape, two-part infusion mould. This allowed the undercarriage of the Sling 2 and Sling 4 aircraft to be infused using Sicommin's advanced epoxy systems SR8100.



This low viscosity product easily wets out thick glass laminates, making for a consistent and reliable process.

SR8100 is designed specifically for infusion and RTM techniques and has secured Lloyd's Register and Germanischer Lloyd approvals. It is currently



utilised by many of Sicomin's industrial, marine, energy, transportation, sports and leisure customers with reliable and robust results. SR8100 is a two-component system, compatible with a variety of hardeners allowing for the construction of small to large parts with a rapid remoulding time.

Sicomin's SR1126 fire retardant epoxy is used to manufacture the composite components of the certified version of the Sling 2 aircraft, namely the Sonaca S200. The canopy front arch, air vents, cowlings and the cockpit interior are all laminated with the aerospace, FST approved system.

The Sling 2 parts are laminated in glass fibre moulds and post-cured at an elevated temperature following demoulding.

The FAR 25.853 certification was a crucial selection factor for TAF to ensure enhanced safety of the occupants in the event of a fire. These rigorous quality standards are also required for this aircraft to operate in Europe.

Sicomin and Aerontec look forward to supporting the ever-increasing number of composite components that The Airplane Factory produces as they expand their range of aircraft.