

SCIGRIP delivers superior bonding solution for Papiorek Gliders

The Situation

When light aircraft and glider manufacturer Papiorek was looking to streamline their assembly processes, they turned to SCIGRIP for technical support and assistance. SCIGRIP, a global supplier of smart adhesive solutions, was able to deliver a superior and robust package of bonding solutions in the form of SG42 and SG5000.

Papiorek manufactures an extensive range of high performance, single and two-seater motor gliders from their purpose built factory and premises in Poland. With expert knowledge in the application of composite technologies, their design and production teams offer some of the most unique and high performance light aircraft available.

Prior to SCIGRIP's involvement in their manufacturing processes, Papiorek's technicians had been using a myriad of chemical compounds to bond the pilot canopies to the gliders structure. "It was clear these assembly techniques were unnecessarily time consuming", Marcin Skrzatek, SCIGRIP's dedicated Polish distributor, remarked. "The Polymethyl Methacrylate (PPMA) products that were being applied to the critical joint areas were bubbling on application and taking up to 12 hours to cure. This was obviously a significant disadvantage in terms of productivity levels".



The Solution

With the help of SCIGRIP's technical support team, Papiorek was advised to trial SCIGRIP's SG42 system - a two component, clear, reactive adhesive and SG5000, a methyl methacrylate (MMA) high viscosity, fast cure, structural bonder.

SCIGRIP SG42 is recommended for bonding acrylic plastics, especially where good clarity is required. Thanks to its translucent formulation, it is used with great success in the sign and display sector, the production and repair of aquariums and other plastic fabrication industries. In the case of Papiorek, SG42 was used to bond Plexiglass substrates within the aircrafts cockpit. The results were impressive and thanks to a seamless bond line and crystal clear joint, perfect visibility was achieved through the pilot's window.

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CUSTOMER CASE STUDY

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To connect and secure the Plexiglass canopy to the aircraft's epoxy frame, Papiorek's engineers used SG5000. SG5000 is a high viscosity, non-sag, structural product that offers excellent tensile and impact strength and requires minimal surface preparation. With a 1:1 mix ratio and a range of working times, far greater flexibility during the assembly process was made possible.

SCI GRIP's SG42 and SG5000 benefited Papiorek in terms of reducing production times and eradicating the 'bubbling' on application problems their technicians had encountered with the previous system.

"Aerospace standards and safety accreditations are extremely rigorous and the fact our products have successfully passed Papiorek's stringent criterion is testimony to our products safety and reliability", comments Mark Rogan, SCI GRIP's European Sales Manager.

