

Australian Composites Pty Ltd invests US\$ 3.1 million in new prepreg manufacturing line

Moorabbin, Victoria based composites manufacturer, Australian Composites Pty Ltd, announced on September 15, 2008 that it has expanded its operations significantly by investing A\$3.4 million US\$3.1 mil in a brand new prepreg manufacturing line designed to mass produce its range of UV curable resin impregnated fibreglass materials which fully cure with light in a matter of minutes in a revolutionary out of autoclave "OOAC" technique.

The recently commissioned fully automated and computerised impregnation line measures approximately 15 metres long and possesses an impressive array of state of the art technologies including dual atomic beta ray gauges for precisely measuring the weight of fibreglass materials before and after impregnation. This process provides feedback to a sophisticated computer system which adjusts resin add on during processing. Total weight of products can be controlled to 1 gram per square metre. The machine was specifically designed by company engineers and custom built in the UK. It is believed to be the first machine of its kind to apply UV curable resins onto fibreglass materials in large quantities which will provide fibreglass workshops with pre-impregnated material within highly specific and consistent weights and resin add on. One of the major benefits of a more highly controlled product (versus resin application by hand) is that composite parts can be made faster and with greater accuracy. The line produces prepregs up to 130cm wide in either polyester or vinyl ester UV curable resin systems. Rolls typically weigh between 20-40 kilos in 15-50m lengths depending on the finished product weight required. As part of the manufacturing process, the machine automatically deposits a thin sheet of polythene on the top and underside of the prepreg so that it is protected from exposure to light and drying out until it is ready to be used. The machine also automatically cuts each roll and then wraps and vacuum seals them in a multi layer specially developed aluminized bag as it comes off the machine. Each roll is then labelled and boxed, ready for

shipment.

Currently, companies producing fibreglass products through wet hand lay up will find an economic time saving alternative with minimum outlay required for tooling other than metal halide or mercury vapour lamps for the rapid curing process. Australian Composite's UV curable prepregs enables manufacturers to make parts in several minutes, a process that's bound to create considerable excitement in the Industry.

Company CEO, Daniel Leipnik couldn't be happier. *"This recent investment was made due to an unprecedented level of success in our technology from people making product using prepregs from our small scale UV curable prepreg machines. We also believe that it is the right time to expand in an industry that continues seeing robust growth as companies move more and more away from metal and alloys structures into state of the art materials such as composites, in particular, faster and cleaner manufacturing options which will inevitably include newer technologies such as UV curing",* he said.

"We've already supplying product for many applications in the areas of ballistics protection, yachts and kayak, hulls for the marine industry, and renewable energy products such as wind turbine blades and solar panel backings. Even "in-situ" pipe repair engineers have begun using the product", Leipnik said.

"Our prepreg manufacturing line is able to produce up to twenty ton of prepreg a week and with this level of capability, some of the largest users of composites globally have taken great interest in sourcing product from us. It's certainly going to provide considerable new business opportunities which we look forward to working on".

The availability of pre impregnated fiberglass is a first for the Australian composites industry which currently imports product from as far away as the UK and the US. The new prepreg supply will likely provide a welcome change for large users of prepreg such as builders of boats, transport, and light aircraft, who use large quantities of hand lay up prepreg at the moment.

"One of the exciting things about our product is that it can be stored on the shelf for over a year without refrigeration as well as being able to be shipped in standard containers which translates to a very user friendly product in general. Being able to ship

composites this way is going to open up a whole range of sales prospects", Leipnik believes.

The company is currently working with several local and international weavers of fiberglass with an offering of more than two hundred types or UV curable prepregs made up of all the standard available glass weaves (Biaxial, Satin weave, Cross feet, Chopstrand mat, twill weave, plain weave, uni, quadraxial, etc).

Source: www.auscomposites.com.au