

2015

Environmental/Sustainability Award | Winner: Techlan

Recognising investments being made by companies towards the ongoing effectiveness of environmental initiatives implemented to the benefit of themselves and/or industry

Overview

In composite manufacture silicone release paper is an integral part of the process for producing pre-preg products. The paper supports sticky epoxy resin film during the impregnation of carbon and fibreglass strands. After a single use, it is rewound and discarded as waste.

Silicone waste paper is a significant global problem for the composite industry. Thousands of tonnes of virgin paper are consumed with a single use and have to be disposed of each year.

Current disposal routes include landfill and incineration. This is expensive and not environmentally friendly. A proportion of the waste paper is sold for by unscrupulous recyclers into other products particularly to India and the Far East where there is no control over its end use. In the foreseeable future the disposal problem will become far more severe not just through increased volumes but through a tighter regulatory framework, greater emphasis on corporate governance and pressure within corporate supply chains to "green" their products.

Techlan uses its technology to clean the contaminated reels of paper. The process is not resource hungry and it removes the contamination but does not degrade the paper's virgin qualities in terms of strength and release characteristics. A sophisticated camera based inspection system enables certification of the cleanliness of the release papers in accordance with each customer's requirements. It is able to identify faults, defects and contaminants down to a particle size of 175 microns.

The paper is then converted to reel lengths and widths to match customer orders for use in other manufacturing sectors.

Techlan developed its process in its first four years and went into production 2014. This has been self funded by the directors with external grant support from WRAP and the Welsh Government.



"We had spent 5 years developing our innovative recycling technology and to get recognition from Composites UK made all the effort and hard work thoroughly worthwhile.

"The award increased awareness of Techlan within the composites manufacturing sector and led to a number of new pre preg manufacturers signing up for the Techlan recycling service".

**Mark Thompson, Director,
Techlan**

The Composites UK Industry Awards are presented at the black-tie dinner on the first Wednesday in November. The event is aligned with the Composites Engineering Show in Birmingham.

Keep an eye out for our annual nomination process every May for your chance to apply.

www.compositesuk.co.uk/awardsdinner