

# SOLITE Steps in Sustainability



## MANUFACTURING

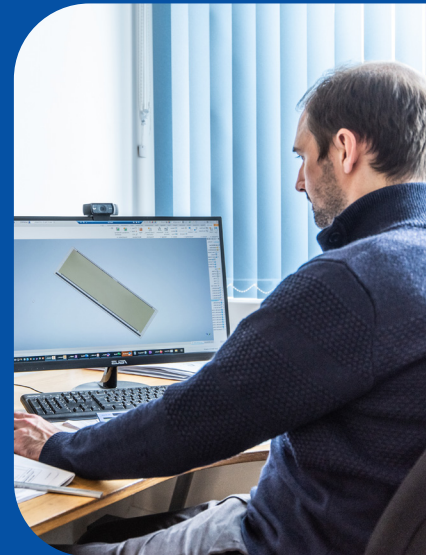
- Solite is proud that around 97% of its products are manufactured in the United Kingdom
- Solite is committed to increasing the use of renewable and recycled materials when designing its products. We have a policy of socially responsible purchasing of raw materials from ethical sources. All materials used in manufacture are RoHS compliant and the recycled content of all raw materials is being established and increased wherever possible. For example, a minimum of 70% of the aluminium that we use is from recycled material
- Many of the materials used in Solite products are 100% recyclable at EOL. Materials such as aluminium and steel can be returned to the top of the material chain and, once melted down and reprocessed, they maintain their original properties. Other materials are currently under review to improve the percentage that can be recycled
- We are working hard to develop and implement a truly effective environmental management system with the aim of achieving ISO14001 certification in 2022. ISO14001 confirms that a management system meets the highest of international environmental standards

## WASTE

- The manufacturing process is constantly monitored to improve resource efficiency and reduce waste. None of the waste we generate goes to landfill
- All scrap metal (stainless steel, aluminium, mild steel and copper) is collected and recycled
- Cardboard packaging materials are crushed for recycling
- Batteries are taken away and recycled. We work with Lumicom a leading company in the closed recycling loop for batteries
- WEEE DIRECTIVE - Solite has chosen to join Lumicom who are particularly experienced in waste management and have rules which cater for businesses who deal only in the B2B sector

## PRODUCT LONGEVITY

- All our luminaires are tested to ensure that they withstand the harshest climatic and environmental conditions - water, dust, impacts, vibrations, heat - with the longest possible lifetime
- We target 100,000 hour lifetime for our products and achieve that rating in many cases. A Tau LED has an L80/B10 value of 100,000 hours...25 years lifetime for typical working hours
- All Solite luminaires have gear trays that can be simply upgraded or replaced whilst maintaining the existing body and diffuser
- We design, manufacture and test all of our own LED electronic systems including the lenses for precise optical control. By carefully considering end of life scenarios, for example, LED failures, solder joint failures and isolate component failures new designs have on-going system reliability even when individual components fail
- We have designed two methods of LED protection for our circuit boards that increases reliability and longevity:



- LUX GUARD by Thorlux, is a patented current sharing PCB and circuit design philosophy. If an LED fails then its current is shared via neighbouring circuits, with each LED's brightness increasing slightly to compensate
- PLED protectors provide an electronic alternative path for the current to flow in the case of LED or solder joint failure ensuring all remaining LEDs stay illuminated at the correct power

[www.solite-europe.com/led-guide](http://www.solite-europe.com/led-guide)



- The vast majority of our LED luminaires are designed to be maintained through life with easy access to the LED PCBs and drivers for replacement. This not only extends the life of the luminaire but also provides the opportunity for upgrading



# SOLAR PHOTOVOLTAIC INSTALLATIONS

Solite has installed solar photovoltaic units on the roof of its manufacturing facility. The system is estimated to produce 80,000 kWh of electricity per annum, helping to power the plant and equipment.

Over its operational lifetime, through reduced consumption from the National Grid, the installation will deliver a total CO<sub>2</sub> reduction of around 36 tonnes per annum.



## CARBON OFFSETTING

We are committed to minimising the environmental impact of our manufacturing processes, so in 2009 the FW Thorpe Plc Group designed an ambitious carbon offsetting scheme to help compensate for these emissions. On 215 acres of land in Cwm Fagor, near Devauden in Monmouthshire, the Group plans to plant enough trees to offset group emissions each year. 149,849 trees have been planted between 2009 and 2019.

[www.solite-europe.com/carbon-offsetting](http://www.solite-europe.com/carbon-offsetting)



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## LIGHTING MANAGEMENT SYSTEMS & ENERGY SAVING

For over 25 years Solite and Thorlux have been developing energy-saving lighting control systems to reduce energy consumption and prolong the lifetime of their luminaires. Our lighting controls that combine maintained illuminance, daylight dimming and presence detection will maximise energy savings for our customers, in some instances in excess of 70%. When the area is occupied the luminaire output will be reduced due to levels of ambient light. Even during the short winter days there can be sufficient daylight for the luminaires to dim, providing energy savings throughout the year.

[www.solite-europe.com/smartsan](http://www.solite-europe.com/smartsan)

## PACKAGING & PAPER

- We are working to eliminate plastics, increase recycled content and reduce our overall packaging
- Cardboard packaging is currently made from 61% recycled sources and we recycle all of our own cardboard used on site
- All wooden pallets are manufactured using timber from approved FSC® sources
- We will be moving from paper to digital installation guides saving thousands of sheets of paper per year. By scanning a QR code on either the packaging or the product the user has access to installation information for both the luminaire and the lighting control system
- Solite printed product literature is made of material from well-managed, FSC®-certified forests and other controlled sources

## THE FUTURE?

The FW Thorpe Plc Group is committed to understanding the sustainability challenges and opportunities and adjusting our business strategy accordingly. We aspire to minimise the environmental impact of our products through the entire lifecycle, from raw material extraction until end-of-life.

Our collaboration with WMG Business, through an Innovate UK Knowledge Transfer Partnership, will further ensure that the principles of circular innovation and sustainability are embedded in the heart of our business.

[www.warwick.ac.uk/fac/sci/wmg](http://www.warwick.ac.uk/fac/sci/wmg)