



Solar Thermal & Rainwater Harvesting Azure Cafe

SOL₂O
GREEN BUILDING SOLUTIONS

Client D.P Builders/Sample Builders

Contract Value £36,000

The Brief

To Provide a Solar thermal system to contribute to the domestic hot water used within the kitchens and toilet facilities to help further Azure's commitment to renewable energy sources and technology. To provide under floor heating as a more functional alternative to radiators to fit in with interior styling of the café which incorporates a large amount of glazing. To provide a rainwater harvesting system to supply recycled rainwater for urinal and toilet flushing at the café

The Solution

Working in conjunction with the main contractor, SOL2O designed, supplied and installed a six panel 12m² solar thermal array with a 600 litre unvented stainless steel buffer vessel and all controls.

SOL2O designed and installed all the under floor pipe work including manifold and fast setting screed, to allow further building work to be carried out within 24 hours of the screed being laid.

After the main contractor installed the GRP rainwater tank below ground, SOL2O then installed all the necessary pipe work and connections including installing the submersible pumps within the tank itself. An overflow alarm was also fitted so that if there is excessive rainfall and the tank fills, the garden centre can use the excess rainwater to irrigate the plants.

All work was carried out under daily supervision with regular health and safety inspections. Due to the variance of work provided by SOL2O and the need for constant communication with the contractor regular project meetings were conducted to ensure that time frames were met.

All the work carried out at the site is covered by a 1 year warranty period.

The Result

By implementing Rain Water Harvesting, Azure Café have reduced their water consumption within the building and allowed for irrigation of water throughout the surrounding garden centre.

The Solar Thermal Technology will benefit the Azure Café by providing up to 60% of their annual hot water, helping reduce their carbon emissions by up to 12 tonnes per annum.

This project is a testament to the SOL2O team's experience of designing and installing innovative and sustainable energy saving solutions, which demonstrate excellent collaborative working practice with the professional teams involved.