

Mill flats project uses new insulation

20 November 2008 By Mark Williams

Developers of East Hanney's Dandridge Mill have raised the bar on sustainable building with an ambitious pledge to reduce the project's carbon footprint by 91 per cent, and have selected insulation manufacturer ACTIS to help them achieve their eco-target.



Hallidays Developments Ltd has transformed the old Dandridge silk mill in Oxfordshire into an eco-friendly apartment building, complete with solar power plus hydro-power and hydrothermal technology which harness the energy from the millrace and riverbed.

These renewable energy schemes have been designed to generate a significant proportion of the mill apartments' energy needs. Hydro power, through the use of a modern Archimedean screw (only the second to be installed in the UK) will have an output of around 14,000kWh/yr - enough to power a household – and will offset 25 per cent of the building's CO2 emissions. Roof-mounted solar panels will provide top-up electricity, mainly in the summer when solar energy is high and river levels are low, and water source heat pumps in the riverbed will generate 100% of the domestic hot water and space heating requirements of the apartments.

Henry Reily-Collins, Project Manager on the Dandridge Mill development, says: "In order to use these hydro-thermal and renewable sources effectively, we needed top quality insulation throughout the building. It also needed to be environmentally viable in order to help us meet our carbon-reduction targets. We expect the development will offset over 12.1 tonnes of carbon each year."

"ACTIS' Triso-Super 10 insulation was ideal for the job. Installing it has helped us exceed the thermal performance on the project by 25%." Andy Joyce, ACTIS' Area Manager, says they are delighted to be involved in the Dandridge Mill development. "ACTIS is committed to providing environmentally friendly insulation alternatives. The company is certified to the international environmental management standard ISO14001 and we manufacture all the component parts of our insulation so we can control this production process. Triso-Super 10 provided environmental benefits to the Dandridge Mill development that will help it achieve its ambitious carbon targets." The thin nature of ACTIS insulation which, although only 30mm thick, provides the same insulation benefits as mineral wool products up to 210mm thick*, also meant that developers could build a mezzanine floor, despite space restrictions. It also allowed natural light to be maximised inside the building, as it enabled builders to keep window reveals to a minimum.

The partnership has enabled the Dandridge Mill development to achieve unprecedented U values with their insulation, which will be used as a base for Hallidays Developments' low carbon projects.