



EWI exceeds targets

Knauf's Warm Wall Plus external wall insulation system (EWI) has enabled thermal performance targets to be exceeded as part of a major regeneration of 690 properties in a sensitive planning area close to the Oval cricket ground. The Knauf system has been applied to the external walls of a 22-storey tower block and a number of multi-storey housing and sheltered accommodation buildings across this large estate. Set a target U-value of $0.3W/m^2K$, SDP has achieved $0.27W/m^2K$ using the mineral wool insulation-based Warm Wall Plus system.

Welsh window upgrade

Solar Windows has completed a large scale project for Wales & West Housing (WWH) under a framework agreement which represents the latest phase in a successful 12-year association between the two organisations. Solar Windows remains a key supplier to WWH and continues to manufacture and install REHAU PVCu windows and doors for the housing association's ongoing maintenance and replacement programme. Most recently, Solar has installed 450 casement and tilt and turn frames in the REHAU TOTAL70C system for the West Lee housing complex in Cardiff. The windows have been foiled in a Rosewood woodgrain finish and those which overlook the busy Cowbridge Road East in Cardiff have been fitted with acoustic glazing to reduce the internal noise levels.



SterlingOSB for Southampton

Oregon Timber Frame has become one of the first timber frame specialists to incorporate Norbord's new SterlingOSB Fire Solutions range in its products. One of the company's latest projects was on a Mansell Homes development in Southampton. Here, SterlingOSB Fire Solutions were utilised for fire mitigation (during construction) measures in a number of properties; for both sheathing and floor decking.

SterlingOSB is one of the most widely-used board products in today's construction projects and is the first choice for many leading timber frame manufacturers. Its strength, durability and low cost make it a suitable material for traditional timber frame panels and Structural Insulated Panels, while its green credentials enhance modern, low-energy building designs.

FIRE SAFETY AND COMFORT COOLING FROM SE CONTROLS FOR NEW LONDON APARTMENT DEVELOPMENT

Notting Hill Housing Group's 108 home development at Micawber Street in Hackney is using an innovative smoke control system from SE Controls to not only provide smoke-free escape routes in the event of a fire, but also ensure that day-to-day temperatures in communal areas and corridors are kept at comfortable levels for residents.

Initially, the six-storey building was designed with a mechanical ventilation system and a separate dedicated environmental shaft to help cool the building and address the overheating effect caused as a by-product of routing heating distribution pipework in building voids to optimise space.

SE Controls was invited to evaluate this system by conducting a thermal modelling analysis on the building and worked closely with the design team and contractor, Ardmore Construction, to engineer a combined smoke control and environmental solution. Based on SE Controls' SHEVTEC® system, which utilises the building's existing smoke shafts for natural ventilation, significant thermal performance improvements were achieved along with major cost savings on the project.

This was achieved by the use of $0.5 m^2$

permanently open louvres at roof level and within the stairwell, while also utilising the automatic smoke dampers on each floor to vent heat into the smoke shaft. Dedicated smoke ventilation roof vents were also installed, which automatically over-ride the natural ventilation system in the event of a fire.

In normal day-to-day operation, cooler air enters the building via the main doors, which are held open by electro-magnetic devices, and flows across the lobby before being exhausted through the ventilation system's roof vents. While the lobby temperature is controlled by a tamper proof thermostat, in the event of a fire, the lobby doors and smoke dampers close automatically, except the one located on the fire floor. This allows smoke to be drawn from the corridor, in to the smoke shaft and away from the stairwell to maintain a smoke free escape route.

The entire system is controlled by networking the smoke ventilation system's smoke dampers on each floor with SE Controls' OS2 controllers incorporating OS link network cards. In addition, the system also incorporates an SE Controls NVLogIQ room controller in the first floor lobby core to monitor and log the system's performance for future analysis and tuning.



SE Controls specialises in the design, project management and installation of advanced smoke ventilation and natural ventilation solutions to meet the needs of architects, contractors, building services engineers and facilities managers worldwide. Further information on SE Controls' products, solutions and projects can be obtained by visiting www.secontrols.com or calling +44 (0) 1543 443060.

Enquiry Number PR7



Solar shading's contribution to 20/20/20

Dick de Leeuw discusses the role of solar shading in achieving sustainability targets...

With the building sector, including our total built stock, being the greatest energy consumer accounting for 40% of all CO₂ emissions, it stands to reason that this is where the greatest energy saving potential is.

Saving energy is what today is all about, be it for the environment, its steeply increasing cost or the security of supply... or all of the above.

Remember 20/20/20? This was the European Commission's 2007 *Climate and Energy Package* which aimed for a reduction in energy consumption by 20%, to cut EU greenhouse gas emissions by 20% and bring

renewable sources up to 20% all by the year 2020? Not that far away now...

Recast EPBD

In 2002, among the original EPBD's (Energy Performance of Buildings Directive) objectives to improve the energy performance of buildings, were better energy efficiency, minimum requirements and certification. The implementation, to say the least, has been slow and hesitant. Some member states have been less than enthusiastic and the building sector is "critically fragmented with significant inertia to change", as an Intelligent Energy Europe publication states.

That is why a recast of the EPBD (2010/31/EU) was needed and published in the June 18 2010 issue of the Official Journal. It had to be in full application in Member States by mid 2013. The recast EPBD maintains the principles of the original directive but intends to clarify and streamline a number of provisions, to extend the scope, to strengthen certain requirements and to emphasize the leading role of the public sector in promoting energy efficiency.

Let us look at one simple aspect of a building – the windows. These are the transparent building blocks

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