

Towering success.

Timoleon supplied the underfloor heating for the Strata Tower an icon of the London skyline.

The 43-storey Strata Tower in the Castle House development at the Elephant and Castle in Southwark is the tallest building south of the Thames - beating Guys Hospital, the current record holder by four metres. It has the title of London's highest residential block.

The 23,000 m² Tower development with its adjacent 5-storey Pavilion building will offer 408 homes - 30% of them classified as affordable. Building services engineers Briggs and Forrester chose Timoleon underfloor heating to serve the communal areas in the iconic building. Timoleon systems make a perfect partner for the 147 metre high tower, designed by Hamiltons Architects for Brookfield Multiplex as a sustainable development. Low flow temperatures will be used to ensure that the underfloor heating minimises carbon output, while maintaining full comfort conditions in the area it serves.

Maximum use is being made of renewable energy sources. There's a wind farm at the top with three giant turbines, sized to generate a total 45kw - enough electricity to power the common areas of the building.

Even the triangular shape of the tower has been sculpted to harness the wind, improving the efficiency of the turbines and reducing the downdrafts in the area around the building at ground level. Briggs and Forrester were responsible for design and installation of all building services in the project. Castle House features a solid

floor construction with loops of Timoleon pipework fixed in position on ClipPlates above a layer of insulation material.

Versatile

Timoleon's ClipPlate solution not only provides a versatile means of retaining the pipe to the required layout, but the 10mm layer of expanded polystyrene integrated beneath each plate also guards against deformation - and provides extra insulation into the bargain!

In addition to providing a firm grip on the pipe the deep castellations on the ClipPlate offer protection from site traffic and the screeding process. The ingenious interlocking system holds ClipPlates firmly together making them ideal for use with liquid screeds. The system also works well with Timoleon expansion foam and polythene gaiter, which both seals the floor edges and protects walls against screed expansion.

Loop ends are connected via discreetly located manifolds to the flow and return sides of the central boiler plant in the basement of the tower. After pressure testing a screed was poured to integrate the Timoleon system into the floor structure and to provide a smooth, even surface for the final floor finish.

The communal plant provides metered supplies of hot water for heating and domestic services, with a CHP unit acting as "lead boiler". The low flow and return temperatures required by the Timoleon system help to keep the central plant operating at maximum efficiency.

