CASE STUDY

Home Group, Cumbria

INSULSLAB DELIVERS INSULATION FOR REGENERATION

Insulslab has been specified by White Young Green Engineering for a timber frame development of 30 bungalows in Whitehaven, Cumbria. Constructed by Thomas Armstrong Construction on behalf of affordable homes provider, Home Group, the regeneration project has been designed to meet Level 3 of the Code for Sustainable Homes without the use of renewables.

Selected for its sustainable credentials and superior insulation performance, Insulslab achieves typical U-values of 0.10 – 0.12W/m^{2}K (depending on P/A ratio) and gives specifiers greater flexibility within the overall design of the thermal envelope. Moreover, using Insulslab in conjunction with a timber frame construction offers additional insulation benefits, with the system delivering low PSI values at the thermal junctions.

Steve Pollington, associate director, White Young Green Engineering, comments: “We specified Insulslab based on its high insulation performance, ease of construction and speed of build. As the system incorporates steel fibre reinforced concrete, we can also be confident in its robustness over time. Finally, with the development creating affordable homes, low U-values were a key consideration – which Insulslab could easily satisfy.”

Constructed of interlocking expanded polystyrene (EPS) pods, Insulslab minimises manual handling throughout construction. As a complete system, the pods are simply laid in place to form a substantially rigid ‘waffle’ shaped slab, with steel fibre reinforced concrete then poured on top to deliver the foundation up to ground floor slab level.

Gary Killip, contracts manager, Thomas Armstrong Construction, explains: “Insulslab SFRC is an extremely easy system to use. As it significantly reduces the amount of reinforcment required, Insulslab was easier to manage on-site than traditional systems and the lightweight pods could be lifted by one man. The

technical team clearly explained the installation procedure and provided excellent support when we needed it. We will definitely look to use Insulslab again."

By simplifying construction and delivering a thermally superior foundation up to ground floor level, Insulslab offers a number of efficiency and cost benefits. For example, the system requires minimal ground excavation and no trenches, which saves time on-site, reduces the amount of spoil to manage and removes the health and safety risk of trench collapse.

Spencer Robinson, General Manager, Insulslab, concludes: "Insulslab is increasingly being recognised as a cost effective and practical solution to the Code for Sustainable Homes challenge. By using Insulslab SFRC in conjunction with timber frame or other highly insulated wall constructions, developers can achieve compliance simply through intelligent building design."