

Insulslab Launched for Basement Wall Applications

Insulslab, the super insulated and fully integrated foundation system, has been developed for use in basement wall applications to offer housing developers a more cost effective construction method than traditional tanking techniques.



KEY DRIVER: COST SAVINGS

Already delivering typical cost savings of 20-25% when compared to standard foundation methods, such as beam and block and raft, the build-up of the Insulslab system can now be engineered in conjunction with an ICF (Insulated Concrete Form) wall to deliver a water tight basement construction.

Incorporating water tight steel fibre reinforced concrete (SFRC) in the foundation slab and ICF wall, this new integrated system significantly reduces the volume of steel reinforcement required in basement structures. In doing so, this increases the speed of build whilst minimising the cost of reinforcement materials.

To construct using the Insulslab system with an ICF basement wall, the ground is first excavated to the specified depth. The basement floor is created by laying the lightweight Insulslab expanded polystyrene pods in place with appropriate formwork and then pouring the SFRC on top. Steel reinforcement integrates the floor and ICF wall junction, with the same process of concrete pour applying as the ICF wall panels are erected to the required height. Complete water tightness is achieved by creating a water bar inside the line of the ICF wall edge.

As with traditional build techniques, the outer wall leaf is built to a greater height than the inner leaf to create a floor ledge that will withstand the load of the structural floor above.



CASE STUDY

Mark Gray, Insulslab Technical Manager, comments:

"With rising steel prices and housing developers under continued pressure to achieve cost savings while increasing the speed of build, we are always looking for ways to develop the use of the Insulslab system to overcome these challenges. The introduction of the Insulslab system with basement walls simply extends all of the benefits of using the system above the ground and gives developers the opportunity to realise even greater cost and time savings."

In addition to cost and time savings, the Insulslab system with basement wall offers a number of thermal performance benefits. For example, the expanded polystyrene composition of Insulslab pods and ICF panels delivers thermal insulation superior to traditional build methods. Moreover, the effective integration of the ICF wall with Insulslab at the floor and wall junction virtually eradicates thermal bridging provide excellent U-values and greatly improved air tightness.

ENQUIRIES:

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