Kier Construction has adopted Insulslab for a nationwide programme of new build custody suites. Used across five sites – Alysham, Bury St Edmunds, Ipswich, King’s Lynn and Wymondham – Insulslab was specified in favour of traditional foundation techniques owing to the system’s proven efficiency gains and superior thermal performance.

Requiring minimal ground excavation, Insulslab significantly increases the efficiency with which foundations can be completed. Constructed of interlocking expanded polystyrene (EPS) pods, Insulslab is simply laid in place to form a substantially rigid ‘waffle’ shaped slab, with steel fibre reinforced concrete (SFRC) then poured on top to deliver the foundation up to ground floor slab level.

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With speed of build a key consideration in the custody suite programme, Insulslab was used in combination with precast concrete walls. As a flexible specification, the Insulslab profile was designed with recessed channels, allowing the precast walls to be easily positioned in place.

At the Ipswich site, groundworkers LPL Construction were particularly impressed with the simplicity of system design and installation. Chris Kirk, Contracts Manager at LPL Construction, comments: “Insulslab was extremely easy to use. We’d never used the system before and initially thought we were missing something as it was so straightforward. We undertook a two pour process with the concrete which went extremely smoothly, enabling us to deliver our programme of works to the specified deadline.”

Integrating the EPS insulation into system design allows Insulslab to deliver superior thermal performance without increasing floor depth. Achieving typical U-Values of 0.10 – 0.12W/m²K (depending on P/A ratio), Insulslab offers a cost effective and efficient method of thermal insulation.

Reflecting on the use of Insulslab at the Ipswich site, Mark Lockley, Project Manager for Kier, comments: “Insulslab was specified as a highly effective thermal system that could also deliver on-site efficiency gains. It has proven easy to use and we have been impressed by the responsiveness of the Insulslab technical team with design iterations and on-site support.”

As structural engineers on the project, McBains Cooper also recognise the benefits of using Insulslab. Paul Cowton, Director, explains: “We have successfully used the Insulslab foundation system on a number of projects and found it to be efficient and cost effective. We will certainly consider utilising this unique system on future projects.”