## ORLITECH® Composite systems

CASE STUDY

PROJECT —

SELF BUILD HOUSE



## **OVERVIEW**

A self-build developer has utilised the far reaching benefits of Orlitech mesh as part of a luxury housing development in Liverpool, Merseyside. .

## DESCRIPTION

The large five-bedroom detached home was built using a traditional brick and block approach, however, a number of alternative and innovative design and build solutions where applied including the specification of Orlitech mesh.

Orlitech mesh 3mm 100x100 was utilised across the ground floor as an alternative to traditional steel mesh for use within ground bearing concrete slabs. The ground floor was constructed using a beam and block floor and ground bearing concrete slab the original specification called for A142 and A193 steel mesh sheets which weigh in excess of 30Kg / sheet . The concrete slab was reinforced with Orlitech mesh prior to the concrete having a polished finish.

Orlitech mesh was chosen as it was found to be more cost effective than using traditional steel mesh. In total, 150M² of concrete floor was reinforced with just 5 rolls of Orlitech and installed by two people in only a matter of hours over underfloor heating pipes. Orlitech mesh has a very low co-efficient of linear thermal expansion and is ideal for use with under floor heating due to the absence of any thermal expansion and contraction from the underfloor heating.

The installers preferred to use Orlitech mesh as opposed to steel mesh and commented on the speed of installation compared with steel and the ease of use – notably no sharp edges and no heavy lifting as each  $36M^2$  roll weighed less than 11Kg.



