

# USING MODERN METHODS OF CONSTRUCTION

## Keepmoat Homes case study



At Keepmoat Homes we recognise the potential benefits of Modern Methods of Construction (MMC) both for increase productivity in homebuilding and reducing environmental impacts of building. In FY21, 12% of our homes were completed using MMC such as volumetric or timber frame methods. In practice, many of our masonry build homes also include pre-manufactured components which increase speed of build, such as spandrel panels which make up the triangle shaped roof frames.

## Timber frame

Timber frame has a number of environmental advantages. Timber is a renewable material that removes carbon from the atmosphere as trees are grown to produce it, so long as it is sustainably sourced. At Keepmoat we specify FSC or PEFC certification. Timber replaces materials such as steel or concrete which are more carbon intensive to produce, with a potential impact of reducing embodied carbon emissions by 20% or more.<sup>1</sup> Factory methods of production reduce waste compared to onsite build as computer aided design and manufacturer reduces offcuts. For larger buildings, the light density of timber has potential to reduce the size of foundations and associated cement use.

## Investing in modular with ilke homes

We have worked in partnership with ilke Homes to create a product tailored to the aspirations of the first-time buyer market and to meet the requirements of our public sector, registered provider and investor partners.

Ilke state that the lifecycle carbon emissions of their homes are around 12% lower than traditionally built homes, down to minimising transport to site (which also has noise and air quality advantages) and through manufacturing homes in a purpose designed factory which limits use of fossil fuel powered equipment and reduces waste. In use, Ilke Homes use 20% less energy than traditionally built homes.<sup>2</sup>

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<sup>1</sup> Dr Morwenna Spear, et al. 'Wood in Construction in the UK: an analysis of carbon abatement potential', July 2019.

<sup>2</sup> <https://ilkehomes.co.uk/our-homes/> [accessed 18.10.2021]