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CASE STUDY

Magply boards cover superfast steel framing system



A cutting edge residential project in Essex is making use of Magply boards for both the internal lining and exterior cladding treatment to an innovative lightweight steel framing system, demonstrating the widely specified fire resistant product's multiple attributes.

The four bedroom new-build and extensions to a neighbouring existing property are being carried out by SP&J Construction, in a joint venture with Uni-Frame and the ARG Group. The intention is to use the current project as a show-site for the rapid build MMC solution and the wide choice of finishes which will be available to future purchasers.

Impressively, the main two-storey structure was erected on a prepared base in just five days, while work is progressing well in terms of the fit-out and external finishes to what will be a spacious home.

"This project – at Theydon Bois between Epping and Loughton – is to show what we can do using the light steel fabrication, while we have already purchased other land where we plan to build a number of residential and commercial properties.

Peter Spendley, Founding directors of ARG

Application

> Steel Frame, Cladding

Client

> SP&| Construction

Contractor

- > Uni-Frame
- > ARG Group
- > MMC solution

Location

> Essex

"Our Uni-Frame system is based on the Frame-CAD profiles and software which use 1.6mm gauge sections for the structural frame and other material as slim as 0.7 mm for the interior partitions. This makes the frame, including the roof, very light and quick to erect, while it also offers possible savings not just on prelims, but aspects such as the type of foundations required. The Magply boards were recommended by some colleagues who had used them on their own contracts and we have been very pleased with the performance as have our sub-contractors like the dry-liners and plasterers. Building Control is also impressed with the fact that Magply offers such good fire performance for areas like the stair cores. The boards are easy to cut – even using a standard craft knife – and fix."

Theydon Magply Cladding

While in respect to this project, the UniFrame system includes diagonal ties which are tensioned on site, Magply is often used by timber frame manufacturers to take the racking loads for their buildings as well as to provide fire protection in close proximity to other properties.

Externally the Magply boards are being covered with a vapour barrier and a 100 mm layer of high performance foam insulation. On top of this, at first floor level, a resin based render system is being applied, featuring a base coat, reinforcement mesh, and two more layers: including the finish coat which is available in some 3,000 different colour options. Around the ground floor of the house, brick slips are being applied over the base coat of render using adhesive and then pointed in the style of conventional masonry.

"We believe the Magply is transforming the feel of the new build system, offering additional structural strength and solidity, where occupants will be able to achieve a firm fixing anywhere they want internally. It also has a very good acoustic performance in terms or reducing sound transmission and reverberation."

Peter Spendley concluded:

This multi-functional performance results from a Magnesium Oxide formulation which also offers an environmentally friendly alternative to conventional plywood or OSB products. Additionally, the unique production process keeps the chloride content to just 0.01%, enhancing both stability and long term durability. Crucially, Magply carries internationally recognised accreditations confirming the boards' ability to deliver up to 90 minutes' integrity and insulation under BS EN fire test conditions.



