

QUALITY CONTROL AND OFFSITE CONSTRUCTION

One of the key selling points for offsite construction is the vast improvements in quality. What procedures are in place for monitoring product performance and maintaining high levels of real value?



When a house is built using standard onsite construction methods, the building regulations officer and third-party insurance representatives attend site during five different stages to inspect the quality of the workmanship and check that all the procedures are followed to achieve a building, extension or alteration which meets current building regulations and standards. This procedure permits final sign-off of the building, and typically provides third party warranty for the first 10 years of its life.

In essence the process works well, however on a large housing development, not every house is inspected at each of the check points. As a test house, Lucideon is often called in to identify failures due to a number of different mechanisms, including incorrectly placed wall ties, under strength mortars, and cracking in floors and brickwork. The failures are generally a result of inferior quality materials or poor workmanship, and ultimately, the insurance provider is responsible for correcting the structural faults.

In the past, offsite construction has had a reputation for poor quality build whereas the reality is quite the opposite. The selling point for offsite construction should be the quality of the build with regards to repeatability, consistency and high standards of workmanship. In spite of this, there can be some concern over the quality as no third-party checks are made during the prefabrication process and hence the insurer is only seeing the finished product and issuing guarantees against an unknown quantity.

There are schemes in place that rely on the manufacturer to prove the finished product is fit for purpose, and this may be the case for the modules and panels submitted for the upfront assessment, however to ensure the consistency of the product, it may be necessary to prove the on-going quality of the product during the manufacturing process.

The certification of most individual construction products falls under the Construction Products Regulations (CPR). Since July 2013, the CPR

requires products which are produced in line with harmonised European Standards to be tested and CE marked. CE marking proves the suitability of the product and ensures the on-going quality using Factory Production Control (FPC) – this is often required to be monitored by a third-party accreditation body.

When products do not have a route to enable them to be CE marked, the market will generally push these down the path of third-party certification. Buildings of a modular and panel construction fall outside of this scope. As a result, there are no mandatory requirements for performance testing of either the individual panels or full modules, and there is no schedule for a FPC system to be implemented throughout the production process. At present this does not appear to be an issue, but as the market grows, there may be a need for manufacturers to differentiate themselves from competitors by providing additional assurance of the ongoing quality of their end products. Ensuring only quality products enter the market will help the offsite sector continue to prosper and banish the old stigma of poor quality buildings.

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