

Case study

ROCKWOOL® offers non-combustible solution for student accommodation

Unilife, Stelling Properties





The project

Unilife offers high-quality accommodation for students in Guilford, Southampton, and Winchester. Unilife provides premium student accommodation with a focus delivering a high-quality student experience.

The availability of accommodation is one of the factors students consider when choosing which university to study at, and Unilife was looking to expand the accommodation on offer at the main campus of the University of Surrey in Guildford.



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The challenge

Student accommodation has to be affordable, comfortable, have a location close to the campus, and, ideally, be quick to construct to minimise disruptions on campus during the academic year.

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The solution

Stelling designed a six-storey accommodation block with 99 studio bedrooms and communal areas that could be mainly manufactured off-site as modular units. Each of the studio bedrooms has space for a bathroom, a study corner, a bed, and a kitchenette.

By manufacturing the modules offsite, Stelling was able to produce high quality units very quickly, completely independent of the weather conditions onsite. It also meant that, as soon as the groundworks had finished and the slab was ready, the accommodation block could be assembled because the units were being built at the same time as the groundworks.

“The planning process for off-site projects of this size is slightly different from traditional construction projects,” explains Jordan Griffiths, project engineer at Stelling Properties. “The design has to be absolutely perfect before we go onsite. It’s slightly more complicated and there is more work upfront. Once we are installing the units onsite, it is too late to make major design changes.

The solution was found with ROCKWOOL® RWA45 non-combustible stone wool insulation, which was used for the floors, walls and ceiling of each accommodation unit.

“It is really important that all teams involved, client, architect, factory, and onsite, communicate regularly and clearly to make projects like this successful. There is very little room for error. For example, the interfaces between the units and the groundworks can be challenging. We work on +/- 2 mm tolerance in the factory, while onsite the tolerance can be +/- 10 mm. Each team needs to be absolutely clear about what is expected.”

A module takes about 10 days to make in the factory. Once on site, the module can be moved from the lorry to its final position in four minutes. On average, Stelling installed eight to 12 modules per day.

The whole block is built with steel frames and thin wall metal partitions. While steel frame buildings are known for their durability, they also present a challenge by causing thermal bridging, resulting in higher thermal loss than buildings made from wood and bricks. In addition, thin metal walls conduct noise easily – presenting an acoustic challenge for lively student accommodation.

As a result, special attention was given to the overall insulation of the new accommodation block. The solution was found with ROCKWOOL RWA45 non-combustible stone wool insulation, which was used for the floors, walls and ceiling of each accommodation unit. ROCKWOOL RWA45 is known for its proven thermal and natural acoustic properties, but also for its renowned fire resilience capabilities. RWA45 is a durable insulation solution which will maintain its performance over the lifetime of the building.

“We have been working with ROCKWOOL on many of our projects and know the products well,” adds Jordan Griffiths. “Working with the ROCKWOOL technical support team, we very quickly established that RWA45 was the right insulation for this project.”





The result

In time for the new academic year, Unilife will open new high quality, safe and comfortable accommodation close to the university and Guildford town centre.

Interruption to the town itself and the university campus was kept to an absolute minimum due to the quick installation of the prefabricated accommodation modules.

