

Product investment is key

Following the tragic events of Grenfell, the insulation industry was transformed almost overnight and an entire market for foamed plastic material was, in effect, wiped out. Cost was no longer the driving force in a specification. Instead, the supply chain is choosing non-combustible, safety first materials that offer improved thermal performance. **Ian Claydon**, technical manager at **URSA UK**, discusses a new era for the insulation sector

Undoubtedly the Grenfell Tower fire in June 2017 has forced massive change upon our industry in terms of the products we manufacture and the protection they offer, but most importantly, in the choices that people make and what they consider important.

Post Grenfell, an urgent review of the Building Regulations relating to fire safety was undertaken. Updated versions of Approved Document B and the technical handbooks supporting The Building (Scotland) Regulations have been published. They include guidance for demonstrating how new buildings will meet the required standards of fire safety.

From a rainscreen cladding perspective, the headlines in England, effective November 2018, are:

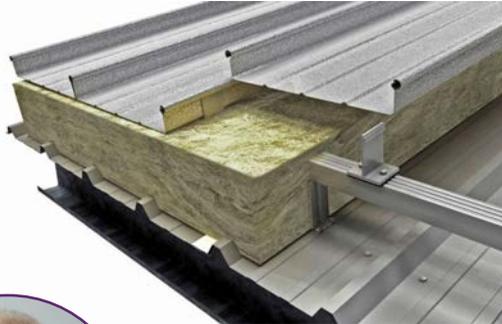
- Restrictions apply to the external walls of certain buildings with sleeping accommodation over 18m in height. The buildings within the scope of this restriction includes hospitals, dormitories, student accommodation, sheltered housing and apartment blocks
- All significant external wall materials on the building types listed above must be non-combustible (i.e. Euroclass A1 or Euroclass A2-s1, d0)
- The restrictions do not apply to certain building types or buildings below 18m in height. However, the commercial and reputation implications of using combustible cladding materials need to be carefully considered.

The situation in Scotland is more robust. Effective from October 2019, a ban on combustible cladding materials applies to all buildings with a storey height above 11m.

Companies such as URSA have always been more focused on the higher end of the market, offering improved protection through its Walltec 32B and Façade N35 products.

However, the drive towards ultimate performance and protection through our rainscreen range is evident, and we are working hard to keep up with demand. We distribute via specialist insulation distributors and also enjoy a collaborative relationship with the contractor during specification.

We understand the factors that they consider important and develop



Top image: URSA'S HOMETEC Cladding Rolls are lightweight, unfaced glass wool rolls for use in twin skin metal cladding systems.

Image underneath is of Ian Claydon, technical manager at URSA UK

products based around these principles. Critical attributes included are quality with the product manufactured to ISO 9001 and has a fire rating of Euroclass 'A1', making it non-combustible and fire safe behind cladding systems.

Environmental considerations are also important, and URSA's glass mineral wool is manufactured from a sustainable resource, utilises at least 50% glass waste, and has a BRE Green Guide Rating of 'A+'.

Products must also be light, versatile and soft to touch, and on a practical level, must be rot-proof, durable and maintenance free, non-hygroscopic and not slump in normal use.

Improvements to safety

Giving his thoughts on today's consumer needs and expectations from a distributor's perspective, Neil Topping, sales director at Tyne Insulation Supplies, said: "The transformation in our industry during the past three years has been phenomenal. There is a real pull across the industry to improve safety and building performance, and people are prepared to spend to ensure their building is as safe as possible."

Neil continued: "Specification in high rise buildings with a rainscreen cladding system is where we are seeing the ultimate fire protection specification. In terms of newbuilds, this is undoubtedly the preferred method of construction superseding traditional masonry techniques."

With more sophisticated products comes more complex design for each application, and we are now able to offer three-dimensional thermal modelling of rainscreen cladding systems and brackets. This allows us to undertake more precise U-value

A SPOTLIGHT ON...

URSA UK has supplied almost 1,000m² of 160mm URSA Walltec 32B to contractors BAK UK at the Paramount student accommodation development in Hotham Street, Liverpool.

Work at Paramount began in 2014 and was due to be completed in 2015, however, work ground to a halt when only part of it was complete. The project was resurrected last year and is now due for completion in spring 2020.

Speaking about the project, Ian Claydon, technical manager at URSA, said: "It appears that combustible insulation may have been used in the original cladding system, however, this has since been replaced and new work completed using URSA products, which ensures maximum protection in the event of a fire."

calculations to show compliance with Building Regulations, incorporating a correction factor for fixings that penetrate the insulation layer.

The brackets used in a rainscreen cladding system normally consists of a 'T' or 'L'-shaped aluminium extrusion with a relatively large cross-sectional area. This means that the bracket cannot be classed as a 'discreet fixing' falling within the scope of BS EN ISO 6946 and BR 443.

The effect of the brackets, even with a thermal break pad, can be very large, therefore, the additional heat loss associated with the bracket must be calculated using three-dimensional thermal modelling to BS EN ISO 10211. This complex calculation gives the 'point thermal transmittance' or 'Chi-value' (X-value) for the particular wall construction and bracket type and layout being assessed. Any variation in the construction must be recalculated.

The industry is very much a transformed one to that which existed pre Grenfell and manufacturers must continue to invest in product development to produce the highest quality, safest and most durable applications that contractors and specifiers are comfortable to use. **rci**

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