

Prelease S

Isover insulation helps breathe

new life into university

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Glass mineral wool insulation from Saint-Gobain Isover has helped the University of Cambridge's Department of Architecture realise a studio building that "seriously addresses sustainability in its construction".

Some $5,000m^2$ of Isover's non-combustible (Euroclass A1) and self-supporting timber frame batts, which are manufactured from a combination of silica sand, the earth's most abundantly naturally-occurring mineral, and recycled glass, were specified by Mole Architects for the external walls and roof of the £1.5 million extension.

The new 422m² studio building forms part of a £3 million refurbishment and expansion scheme for the department and wider still, the university's major development programme of more than £600 million of construction projects.

It sits to the rear of the listed Georgian Scroope Terrace which was refurbished and converted into offices by Freeland Rees Roberts Architects for the Martin Centre for Architectural and Urban Studies as well as adjacent to an 1958 extension and is linked to the two via bridges.

It comprises a single studio space capable of accommodating 120 undergraduates which sits on glutam columns over a workshop and the existing car park at ground level. Head of department Professor Marcial Echenique wanted a single teaching space clear of columns and a building made of timber.

Mole Architects pictured a contemporary version of the Victorian warehouse buildings that suit art schools so well, with the cast iron replaced by timber, and positioned and designed the new building using materials to ensure minimum heat loss and maximum natural cooling. Its form is determined by this function.





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The north lights in the saw tooth roof are a recognised solution to provide even, natural light without solar gain and a low-energy cooling strategy uses high-level windows for night time cooling and cross ventilation, supported by an innovative, water-based radiant cooling system.

Meredith Bowles of Mole Architects said: "The building was designed to be a low cost building that seriously addresses sustainability in its construction and it is expected it will gain attention both for its design and by virtue of its high profile nature within the architectural community.

"We used Isover for all the external walls and roofs due to the fact it has a high recycled content. We originally specified a hemp insulation but in the event they couldn't deliver in time and Isover was the most attractive alternative. "

Andrew Macdonnel, Isover's southern specification manager, said : "The project required some really eco-friendly insulation and the original specification was for hemp. But some problems cropped up when the contractor tried to order the insulation so the architect came to me for an alternative. They didn't fully appreciate the environmental qualities of our product to begin with but because of our recycled content and so on, our product was a good switch. "

* More and more specifiers and users are insisting on the use of insulation materials that not only deliver technical performance but also come with exceptional green credentials, with the BRE Green Guide to Specification a common point of reference. In this, glass mineral wool insulation can achieve an A+ rating. It also boasts zero ODP (Ozone Depletion Potential) and zero GWP (Global Warming Potential).

Manufactured from a combination of silica sand, the earth's most abundantly naturally-occurring mineral, and recycled glass, up to 80% of the raw material used in the production process is recycled post-consumer glass, from building regeneration projects for example, or flat glass manufacture that would otherwise go to landfill, making Isover one of the most environmentally sustainable insulation products on the market today.

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