



SIKA AT WORK

ROOF REFURBISHMENT FOR THE UNIVERSITY OF BRADFORD YORKSHIRE, UK

ROOFING: Sika Liquid Plastics Decothane Ultra 25

SIKA COMES TO THE AID OF FAILING ROOFS

PROJECT DESCRIPTION

Richmond Building is the largest building on the University of Bradford city campus and is highly visible across the Bradford district. With 33,000 square meters of accommodation and 14 story's high, the building was re-clad to the western elevation in 2006 massively improving its energy efficiency. The building has seen many changes since its erection in the 1960s, not least the installation of a translucent roofed atrium providing a thriving social hub at the heart of city campus. The building houses offices, teaching space and specialist laboratories. But it was the Richmond Wing north roof that was in need of refurbishment when Sika was called in to assess the area in July this year, as an IT training room which naturally

houses computer equipment, as well as being in regular use by students, had a failing roof. The initial inspection revealed the original roof had a concrete deck, bituminous based vapor control layer, 90mm insulation with a three layer felt system finished with a mineral cap sheet, but it was in need of serious refurbishment. A core sample, taken during the initial inspection indicated saturation of the original roof build-up above the structural deck and there was ponding in places, which increased the likelihood of water ingress via defects in the existing waterproofing. In addition short-term repairs had been made and needed further investigating as did the cause of the blistering which was evident in the existing waterproofing.



SIKA LIQUID PLASTICS SOLUTIONS

Sika Liquid Plastics recommended that the existing roof be completely removed and stripped back to the concrete deck, first installing a vapor control layer of S-Vap® 5000E SA , followed by Decotherm® insulation and bonded in Decostick SP adhesive primed with Primer 600 and with ® Carrier Membrane SA . The build-up was then capped off with a Decothane Ultra System, a liquid applied membrane, which provides a totally seamless waterproof finish.

As part of the works, further attention to the detailing items were essential as there were a number of plinths, protrusions and plant equipment which were failing. To finish, as there were designated fire escapes and maintenance routes, it was agreed to install a walkway using the new Deco Mineralized Grit system in a contrasting color, which is a visual benefit to all users, providing an easily identifiable pathway.

The liquid applied membrane was Decothane Ultra, a new low odor waterproof roofing membrane recently launched onto the UK market. As the building would be occupied during the works, any product that cut down on possible complaints was essential and Decothane Ultra was designed specifically for use in more sensitive areas such as hospitals, food manufacturing and educational facilities such as this.

With its low odor levels, Decothane Ultra is a non-disruptive roofing solution that achieves more than 80 percent reduction in odour strength five minutes after application and greater than 95 percent reduction after just one hour against a similar one-component competitor.

With a growing number of refurbishment projects that need to be completed when the building is still occupied and smell has been a cause for complaints in such locations this new product has a significant advantage over competitor products.

Decothane Ultra utilises a range of new novel curing agents developed and patented by Sika. This new chemistry offers a versatile platform from which to formulate extremely low solvent content and to low odor liquid applied membranes for a wide range of applications.

For the University of Bradford, the product was ideal as it is a sensitive area and why it was selected but in addition, it has a 20-year guarantee and has just had its 25 years ETA 005 certificate approved. Commenting for the University, the Building Maintenance Officer, said: "This roof was particularly challenging not least because all materials had to come onto the roof from a service lift which isn't ideal but what really needed to be addressed was the ingress of



ROOF REFURBISHMENT FOR THE UNIVERSITY OF BRADFORD



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water, as the original roof had been patched over the years but it continued to fail.

“I was impressed it would be a seamless system which not only covered the roof but was also able to waterproof the various detailing items which are on the roof. In addition, with access required, the new walkway proved easy to install over the finished roof and has a skid inhibiting finish, so all in all, we are pleased with the final outcome.”

The finished project has provided the client with a waterproof system which has taken into account all the on-site restrictions and detailing needs. There is also the added benefit of Sikalastic®-641, a low odor product that also met the client's requirements. The project ran

smoothly from start to finish and special mention must go to the QA contractors completing the works – they did a great job.”

SIKA PRODUCTS

Used in the project: Decothane Ultra, S-Vap® 5000 SA, Decotherm® Insulation, Decostick SP, Primer 600, Carrier SA.

PROJECT PARTICIPANTS

Project owner: Public University

Contractor: Everlast Waterproofing

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