

CHERWELL SCHOOL, OXFORD

An excellent example of best practice in built-up felt roofing design and installation.



Cherwell Secondary School in Oxford is a high-profile project in a prominent setting. IKO were given complete responsibility for the specification and planning of the building's 2000m² flat roofing system.

The school had severe problems with water ingress for a number of years. Water ingress was causing major damage and disruption to the school, including damage to computers. Some classrooms had to be closed during bad weather. The roof features many valley gutters and rooflights. IKO was invited to inspect the roof and supply a suitable specification.

As fire resistance was a key consideration, the roof consists of a built-up felt roofing system based on IKO Ultra Prevent membranes featuring graphite firewall technology. As this is a large and busy school, the utmost care was taken to ensure the safety of both building and users and all measures were taken to ensure the site was safe.

Due to its poor original design, the roof wasn't draining as it should. The design of the new roof was complicated by the need to re-level the roof without touching the existing metal deck. This was achieved by designing a tapered insulation scheme that levelled the roof and then installing another tapered scheme that would channel water to the roof's edge and into new designated fascia and guttering.

Project Sector: Education

System: Built-up Felt Roofing

Products Used: IKO Ultra Prevent Membranes SA,
IKO enertherm ALU

Size: 2,000m²

Cork insulation was used to level the roof, and a second layer of PIR insulation was used to achieve target U-Values.

A self adhesive vapour control layer was installed to avoid the use of hot bitumen. This was necessary as the school was occupied during roof work. PU adhesive was used to install the insulation as well as a self adhesive underlay.

The roof is an excellent example of how bituminous membranes, along with good design and intelligent use of insulation, can deliver a problem-free roof for schools. The roof was installed safely and efficiently and the running of the school was not affected during work.

The system was installed with a 20-year insurance-backed guarantee.