



Low carbon liquid screed for new primary school

with TOPFLOW Screed A

The challenge

Hollycroft Primary School is a new primary school, being built as part of a large housing development in Hinckley, Leicestershire. It was designed to be the first net zero school in the county.

Reducing net carbon emissions during construction and optimising the energy efficiency of the new school were important to the client.

They saw this project as an example of how the council could work towards their aim of becoming a net-zero carbon county by 2045.

This influenced a number of design choices like using a cross-laminated, prefabricated timber frame instead of steel, which has helped to reduce embodied carbon emissions and construction time on site.

A floor screed was needed to finish the 1250m² of floor area that would meet these design requirements.

Our solution

TOPFLOW Screed A, Tarmac's low carbon, cement free liquid floor screed was chosen for the project instead of traditional semi-dry screed.

TOPFLOW Screed A can be placed quickly over large areas and helps achieve a high-quality finish. It also requires fewer expansion joints, enables larger bay sizes and is less likely to suffer from cracking.

TOPFLOW Screed A is among the lowest carbon floor screeds available in the UK, with an 80% lower carbon footprint than a conventional sand-cement screed.

To speed up drying times and meet the requirements of the challenging build programme, TOPFLOW Screed A FD E2C was used which has been proven to dry at least twice as quickly as the standard TOPFLOW Screed A and enable floor coverings in as little as 21-28 days.



Results and benefits

As planned, around 75m³ of TOPFLOW Screed A FD E2C was supplied from Tarmac's Walsall Plant and successfully finished by the contractor Midland Floor Screeding.

Using TOPFLOW Screed A rather than a sand-cement screed saved 25 tonnes of CO₂e carbon for this project, reducing the carbon footprint by 80%. It also helped the speed of construction which was another priority for the client and main contractor.

Midland Floor Screeding were able to achieve an excellent finish as the images show.

CEVO – low carbon construction materials made simple

CEVO concretes and liquid screeds offer a low carbon alternative to traditional mixes.

CEVO represents Tarmac's commitment to supplying materials that offer transparent carbon savings and easy to understand performance grading based on the amount of carbon taken out of the design using alternative binders, cement replacements, limestone fillers or an alkali activated solution.

We align our current range of CEVO, low carbon concretes and screeds, to ratings published by the ICE, endorsed by the Green Construction Board in the Low Carbon Concrete Routemap.

The ratings system uses intuitive A, B, C to G gradings similar to efficiency bars that we see on everyday electrical items in our daily lives.

This enables architects, structural engineers, contractors and their clients to clearly measure and compare the carbon emissions associated with different materials, helping with decision making.

For more details visit: tarmac.com/lowcarbonconcrete

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