



Low carbon liquid screed for luxury apartments in Birmingham's Jewellery Quarter

The challenge

JQ Rise is a 24 storey apartment development located in Birmingham's popular Jewellery Quarter, comprising 226 one, two & three bedroom luxury apartments.

Large volumes of floor screed were needed to finish the 21,000m² of floors, which would require efficient delivery to site and pumping into place on all levels.

The developers were keen to optimise efficiency and make the overall development as sustainable as possible while minimising the impact on local people living and working around this city centre site.

Many of the structural components, façades, and windows were made offsite to streamline the construction process, reduce onsite waste and shorten the project timeline.

The ready-mixed, low carbon formulation and fast, efficient pumped placement of TOPFLOW Screed A made it the ideal choice.

Our solution

TOPFLOW Screed A is a low carbon, cement free liquid floor screed that can be placed quickly over large areas and delivers a high-quality finish.

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

The range is perfectly suited for tall building construction with mix additives available to enable rapid pumped placement to upper floors without the risk of segregation.

It can be supplied in mixes designed for high thermal conductivity enabling underfloor heating to work to optimal efficiency and rooms to heat up quickly.

It also enables much thinner section floors which can reduce floor loadings and space requirements in multi storey developments enabling light weight building designs and reductions on carbon footprints.



Results and benefits

As planned, around 1000m³ of TOPFLOW Screed A floor screed was supplied to the site between Q4, 2023 and Q1, 2024 with average pours of 50m³ each time. The work was completed efficiently within the build programme and finished to a high standard by UKS Group the experienced contractor.

Having used TOPFLOW Screed A on other projects they saw its potential in helping to meet the high standards of quality, programme efficiency and sustainability on this prestigious development.

Although flowing screed was the only option considered for this project, we estimate that using TOPFLOW Screed A generated major carbon savings.

Using TOPFLOW Screed A compared to a conventional sand-cement screed saved over 234 tonnes of CO₂e for the equivalent volume or 342 tonnes when factoring in the thinner average depth. This amounts to an 85% lower carbon footprint.

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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