ULTIMATE EXPERIENCE

PIGMENTED TOPFLOW ARCHITECTURAL. THE HEpwORTH, WAKEFIELD
THE ULTIMATE HIGH-QUALITY AESTHETIC SOLUTION FOR VERTICAL FORMS

READYMIX CONCRETE
TOpFLOW ARCHITECTURAL CONCRETE

Topflow Architectural enables exceptional quality on vertical applications with no remedial work. Mixes, strengths and placing techniques can be specified and tailored to suit project requirements.

THE CHALLENGE

The Hepworth Gallery was to replace Wakefield’s existing gallery and be a fitting home to some of the UK’s finest art. Known for innovative and challenging use of concrete in their structures, Sterling prize-winning architects David Chipperfield were commissioned to design this bold structure. The basis of their design was a series of coloured concrete ‘trapezoidal blocks’ with striking cuts and forms throughout.

The high profile nature of the project coupled with the quality of the design required a material that would ensure performance to the highest standard. The design required the best possible surface finish presenting a uniform concrete surface over the entire structure in a bespoke aubergine colour.

OUR SOLUTION

The Lafarge Tarmac product development team worked closely with the architect and Laing O’Rourke to obtain the closest possible colour match. The bespoke aubergine colour was developed with the use of the innovative Toptint integrated colour system. The architect was sufficiently impressed with the colour match that a full-size trial panel was commissioned.

With its ability to achieve the best possible surface finish and provide geometrically accurate shapes, the use of Topflow Architectural Concrete was suggested by Lafarge Tarmac experts. Chipperfield had experience of self-compacting concretes in projects elsewhere in the world and were keen to explore its possibilities in the UK. Therefore during 2007 a number of complex trials were undertaken to understand the relationship between the concrete, the formwork material, the placing methodology and the release agent, so as to achieve the best finish and colour uniformity possible.

After consideration of all the factors involved and a cost-benefit analysis where the in-situ solution offered significant cost savings over pre-cast construction, the decision was made to specify the construction of the building in coloured Topflow Architectural Self-compacting Concrete.

RESULTS AND BENEFITS

The building represented the first large full-scale project in the UK to utilise coloured Topflow. It pushed and developed the boundaries of aesthetic structural concrete, through the combination of two distinct technologies. The amalgamation of Toptint and Topflow was used to stunning effect, meeting the architect’s requirements at every stage of the process and providing the highest quality end product in terms of colour, shape and finish. The use of this material resulted in cost savings through a reduction of manpower, while the in-situ solution also offered significant cost savings over pre-cast construction.