

MAGNA

GLASKERAMIK

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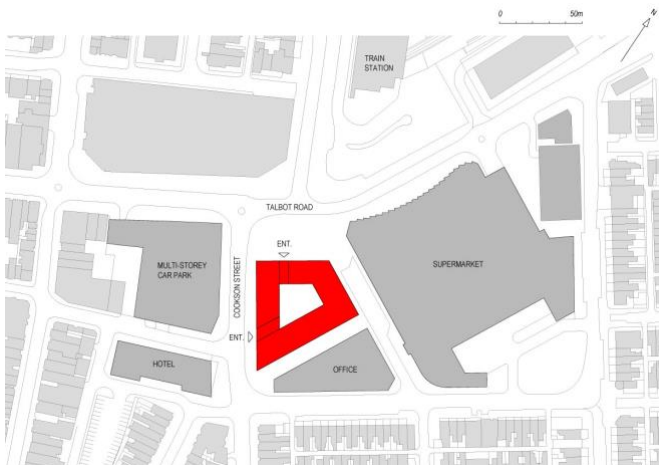
by SOLARIMPULSE
FOUNDATION



MAGNA GLASKERAMIK REFERENCE FACADE –
Talbot Gateway, Blackpool, United Kingdom

Developer: Muse Developments

Number One, Bickerstaffe Square is a 25 acre Central Business District building complex designed by AHR and built by the Eric Wright Group, it is a flagship building for Blackpool, providing an efficient, flexible and inspiring new home for Blackpool Council, which significantly contributes to the ongoing regeneration of the town.



REFERENCE PROJECT: Commercial Offices Building Study, Blackpool Council Offices, United Kingdom.

The office is a key part of the wider Talbot Gateway Central Business District, which has transformed the once run-down and traffic-filled area next to the railway station into a modern welcoming environment which will provide civic pride and help regenerate and rejuvenate the city. Flexibility and future-proofing have been at the heart of the design, with floor plates providing efficient space for either cellularised or open plan offices, and multi-floor sub-division of space and multiple entrances accommodating sub-letting if required.



Sustainability was a key factor in the design with Blackpool Council aspiring for a zero carbon building. This BREEAM Excellent, EPC-A rated building has delivered a modern, welcoming and user-friendly working environment at excellent value for money. External architectural features reference the local area, with imposing Y-shaped columns reflecting the town's iconic large structures and vertical fins forming a wave-like appearance. The building is a visual representation of Blackpool's ambitions and aspirations to return the town to a thriving destination for visitors, businesses and residents.

The new Council Offices form part of the overall redevelopment of the Talbot Gateway area of Blackpool. The courtyard form splits the building into

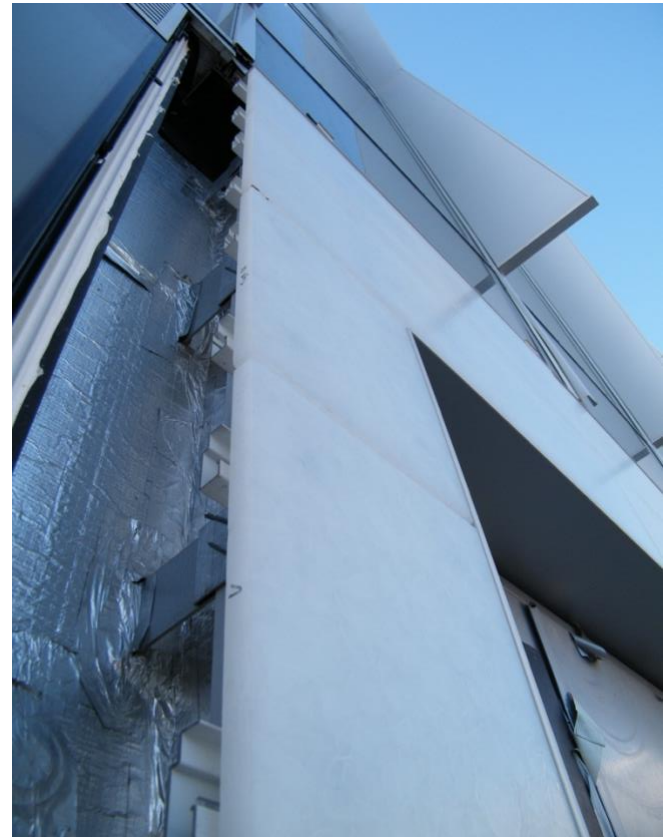
two wings, providing flexibility of subletting of floor space in the future. Sustainability was a key factor in the design with Blackpool Council aspiring for a zero carbon building. The building achieved a BREEAM Excellent rating and an EPC rating A. Flexibility and future-proofing have been at the heart of the design. There are a number of staff working within the office that have particular needs in terms of accessibility round the office and the design was to address as well as to be generally inclusive as possible.



Exposed external Y shaped columns are placed around much of the building at ground floor level. Blackpool has a history and tradition with massive structures. These iconic structures have become part of Blackpool and a representative image of the town. The columns run along the two primary facades, connecting the two entrances and highlighting the retail frontages along the primary public routes into the town centre. The fritted vertical glass panels provide additional interest to the largely glazed elevations and reflect the use of the space inside and also the requirement to meet solar overheating targets.



The building is clad with a range of systems from curtain walling to rainscreen, however the architects were radical enough to choose a C2C solution, the white rainscreen areas to the inner courtyard are clad with Magna Glaskeramik in type Polar Patinated, thickness 21mm panels with 10mm open joints between panels and a Hilti aluminium rail under-construction method to hang the cladding back to the concrete structural frame.



This Polar white type is sourced from the waste glass coming from the production of solar glass which is low in iron and thus very white or clear in colouration. The material offers a new and C2C accredited sustainable and truly circular economy ethic, whereby the entire contents are sourced and upcycled from trade waste glass and can be locally recycled by glass processors at the end of a long life. The material is heavily durable, offering true performance and tested certification as well as suited to both hot and cold climates, closed surface against vandalism, impervious to staining and almost self-cleaning in its finish.



Glaskeramik is incombustible Fire Rated A1. These design photos show the arrangement of the Glaskeramik panels at openings and to the ground, the positioning of the anchors at 100mm from edges and even the potential to mitre bond the material at outside corners. Most cladding formats were cut to 1200 x 400mm sizes with 10mm open joints.

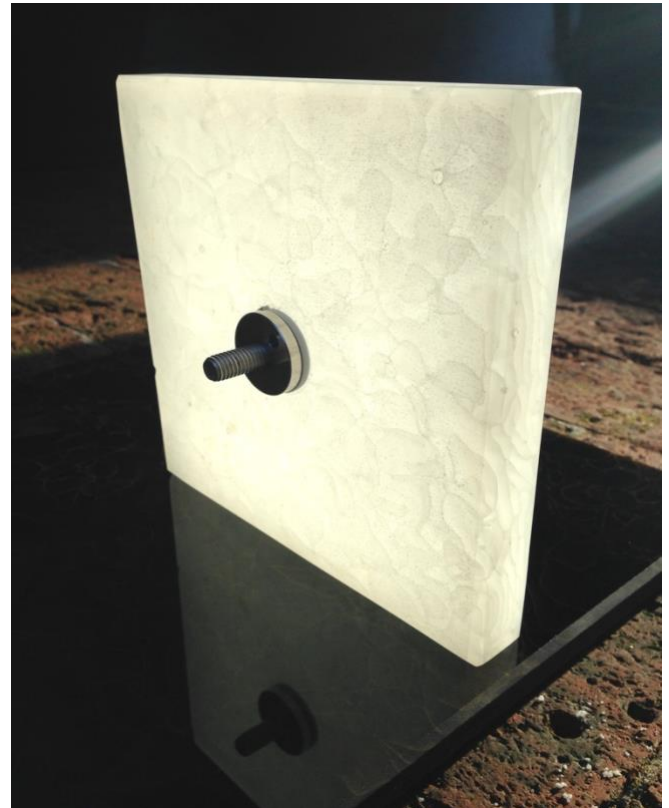


Magna manufacture the material from glass industry wastestream, in this case float glass, those industries forming flat glass or bottle glasses, this waste is then reprocessed in a controlled way without additives and the outcome reflects the input material. Green beer bottle source will produce a dark green and low iron glass from solar panels can provide a very white coloured Glaskeramik as seen here it is also translucent.



This material is circular as it has no additives (such as a resin bond which many companies resort to reduce the issue of tension) and is categorized as crystallized glass ceramic in its nature and character much as a tested ceramic slab. The technology allows for the growth of these strong crystals and deals with the air bubbles captured by the sintering process whilst also removing the tension in the sheet formation. This means that the true advantage against cast glass types is that the material slabs (of both 2780x1260mm but also 3500x1500mm maximum sizes) can be premade and stocked in quantity affording a swift processing for

projects. The material thus covers the glass, ceramic, cast glass and the natural stone market but offers light translucency and randomized interior details. The patinated, natural surface offers an unusual textural and aesthetic effect in the changing light and weather. conditions which makes it stand out amongst the usual façade solutions. high quality and standard and with a The material is made in Germany to a wealth of leading glass consultancy and technical advice in order to create a stable outcome. If you would like to know more about this exciting new material or require technical advice please contact the author or via the manufacturers website www.magna-glaskeramik.com



Magna Glaskeramik GmbH is pioneering the circular economy in its production of 100% recycled and 100% recyclable façade material which is being taken up by global accreditation and test data, the water use is also circulated within the plant and the energy use is offset by a large solar array on the roofscape.

European Test Approval for Anchored Rainscreen, ISO 9001, EN 12600, Cradle2Cradle Gold Certification. Independent Label Details: www.solarimpulse.com



Author and architectural consulting: Andrew Savile ARB, Low Impact Ltd. Photo Credits: AHR, Eric Wright Group, Low Impact Ltd.