



ICE LOFT

FAÇADE PROJECT IN HAMBURG WITH HI-MACS®
BY KÖHLER ARCHITEKTEN

ICE LOFT, FAÇADE IN HAMBURG



A certain amount of skill and a high level of sensitivity in design and planning are required when attempting to integrate a new building into a historical ensemble. On the one hand, there is a risk that the building with its modern dimensions could seem out of sync with its surroundings; on the other hand, its features could be too antiquated, making it look pretentious. A problem the Hamburg-based Architects Köhler Architekten solved skilfully when designing the so-called "Ice loft" in the district of Ottensen: The classical façade structures of workmen's and bourgeois houses in the district were reinterpreted and their surface was covered with the modern HI-MACS® material, designed to give it a contemporary look.

Architect Florian Köhler says that passers-by often stop to let the façade of the new three-storey building work its magic on them. Although the building's dimensions and proportion are based on the houses of the surrounding properties from the 19th century, the choice of material shifts it into a new age: Using a glass staircase as a linking component, the architects staggered the structure - similar to the adjoining property - across a classical semi-basement and two residential storeys above it, then finished it with mouldings and a gable-end roof. The ceiling height of the ground floor is higher than that of the residential floors. Vertical ribbon glazing connects the two residential floors. In the style of the smooth and shiny white surfaces of the historical building, the architects chose shiny white façade panels made of imbued Alpine White HI-MACS® solid surface, giving the dynamically formed surface a distinctive depth effect.

Three-dimensional façades



Its versatility has led to the HI-MACS® solid surface material becoming established as a high-quality product in the world of architecture and design. It can be used in the construction of façades and opens up new options to architects and façade construction companies in terms of design, functionality and aesthetics. Its material properties make it thermoformable, offering a wide range of possibilities, especially when used in three-dimensional designs. Architect Florian Köhler used this to his advantage by utilising shaped HI-MACS® façade panels to imitate the plaster mouldings found in the old buildings of Ottensen. The concave-shaped elements finishing the sheet metal-covered arched roof bend towards the road, while the dormer windows copy this shape, creating the impression of small waves moving across the roof. The translucence and crystalline nature of this precisely formable and inherently stable solid surface material makes this "wave movement" appear ice-like.



But the horizontal structure of the neo-classical façade was not the only aspect to be reinterpreted; the exemplary elongated construction was reinvented in a new form: The round central structure highlights the symmetrical nature of the building, continuing across the two HI-MACS®-covered residential storeys into the ground floor. At this point, a change of material introduces a well-thought-through break of this continuity. In contrast to the rest, the base is covered with grey sheet metal, with a mesh structure attached. This mesh structure will act as a support for climbing plants, eventually turning the surface into a "vertical garden".



HI-MACS® was also used in the design of the interior: The architects used the translucent "Opal" shade of the hard-wearing anti-bacterial solid surface material to design the washbasins in the bathrooms. Thanks to its non-porous surface, HI-MACS® does not absorb any moisture and is extremely stain-resistant. Furthermore, the acrylic stone is scratch and wear resistant.





Seamlessly fixed to the wall

The amazing design possibilities and functional advantages of HI-MACS®, as a façade material, are particularly evident in non-weight-bearing ventilated façades such as the one here in Hamburg-Ottensen. Heat insulation and weather proofing are functionally separate areas in this very common construction variant. This is where the unique combination of relevant properties make HI-MACS® stand out, making it ideal for outdoor use. Links on the roof, floors and window sills can also be designed inconspicuously using a special subframe structure. It connects the panels in a professional manner, leaving sufficient air space for wall insulation. The insulation material can be fitted optimally between the aluminium profiles and the back wall. Depending on the type of building, the subframe structure is implemented individually according to the architect's instructions. The links between the HI-MACS® panels and the aluminium frame remain invisible from the outside. The incredible moisture resistance of the solid surface material also protects the façade insulation layer behind it. The space between the façade panel and the insulation material perfectly diverts moisture to the outside and allows for perfect ventilation in the summer and the winter. In regard to fire resistance, HI-MACS®-S728 in Alpine White received a fire rating of B-s1-d0 (as per EN-13501-1) in the SBI test (Single-Burning-Item), beating all other mineral-based materials.

Watch the construction video at https://www.youtube.com/watch?v=yk7c6eL_aaw



PROJECT: Ice loft, façade

LOCATION: Hamburg-Ottensen, Germany

DRAFT: Köhler Architekten, Hamburg

FAÇADE CONSTRUCTION: Peter Knapp Dach
and Fassadentechnik GmbH, Bad Salzungen

MATERIAL: HI-MACS® Alpine White S028, HI-MACS® Opal S302

PHOTOGRAPHER: ©Nikolaus Herrmann

HI-MACS® by LG Hausys

Surfacing the World

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HI-MACS® is a solid surface material that can be moulded into any shape. It is widely used for architectural and interior applications, such as sculptural and high performance wall-cladding or kitchen, bathroom and furniture surfaces, in commercial, residential and public space projects. It is composed of acrylic, natural minerals and pigments that come together to provide a smooth, non-porous and visually seamless surface which meets the highest standards for aesthetics, fabrication, functionality and hygiene – offering manifold advantages over conventional materials.

HI-MACS® provides limitless possibilities for surfacing solutions and inspires creative minds from all over the world. **Zaha Hadid, Jean Nouvel, Rafael Moneo, Karim Rashid and David Chipperfield**, among others, have completed fabulous projects using HI-MACS®, from kitchens to bathrooms, including decorative items, in hotels as well as in museums, shopping centres and on external façades.

LG Hausys' HI-MACS® uses a simple heating process to give three-dimensional thermoplastic forming capabilities, allows visually seamless designs, offers a virtually limitless range of colours and – for some shades - exhibits a special translucency when exposed to light. Although HI-MACS® is almost as robust as stone, it can be worked in a similar way as wood: it can be sawn, routed, drilled or sanded.

HI-MACS® is manufactured using a new generation technology, the **thermal cure**. The temperature reached during the manufacturing process sets HI-MACS® apart from other solid surfaces and creates a denser, even more homogeneous, sturdy, durable surface – with a better resistance and superior thermoforming performance.

As regards hygiene, HI-MACS® does not absorb humidity, is highly resistant to stains, and is easy to clean, maintain and repair.

Countless internationally recognized certificates attest to the quality of HI-MACS® in terms of ecological commitment, hygiene and fire resistance – being the first Solid Surface in the market to receive the official **European Technical Approval (ETA) for façades** – for Alpine White S728 colour.

HI-MACS® offers the longest warranty on the solid surface market with a 15-year warranty for products fabricated and installed by a member of the HI-MACS® Quality Club.

HI-MACS® The New Generation

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* HI-MACS® is designed and produced by **LG HAUSYS**, a world leader in the technology sector belonging to LG Group, and distributed by **LG HAUSYS EUROPE** based in Geneva (Switzerland).