

## Villa Wiese, Berlin

# A wooden house surrounded by nature with an inspiring HI-MACS® facade

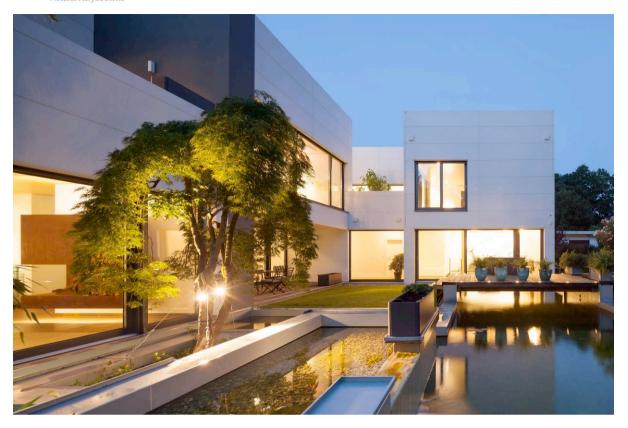


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Architect and builder Volker Wiese has realised his personal home design dream with a Bauhaus style residence with exterior HI-MACS® cladding that secures privacy from the outside but encloses a delightful garden with-in a multi-façade, two wing design. For the keen nature lover that Wiese is, using acrylic stone for the exterior wall cladding was an obvious choice as all the materials used in this energy efficient structure are sustainable. In selecting HI-MACS® for the facades, Wiese has become a pioneer in the use of this modern building material for the construction of exterior walls.







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It is often said that out of adversity comes original inspiration and success. So it is with the new Wiese residence in Berlin-Grunewald. Previously Volker Wiese lived the ideal of many architects with a spacious Bauhaus home with a 3,000 square metre garden. However the local building authority issued permission for the construction of a 90 metre long, five story tall row of buildings across the road and Wiese's carefully nurtured paradise created by the gardening enthusiast over many years was destroyed by the shadow of the buildings and row of balconies facing his garden.

Wiese settled on the site for his new project in the fashionable but urban area of Berlin-Grunewald where he demolished a run-down post war building in a quiet cul-de-sac and went about designing his new two wing home that secured his privacy from the outside with symmetrically arranged HI-MACS® panels, while forming an intimate and sheltered courtyard on the inside, with exciting planes and offset facades mixed with large windows. From the green terraces and Japanese gardens of the first floor the view over the courtyard with a large pond at the centre and only a glass panel separating the swimming area from the koi carp pond.



#### The entire design and construction process was fascinating.

As the connection between nature and living was also an important aspect in the architect's choice of material for structural components, he chose exclusively ecologically sustainable high-quality products such as HI-MACS®. architectural company Kaden Klingbeil implemented Volker Wiese's design as a wood-frame construction with solid wood ceilings. However, they did not want the benefits of the timber construction to be



too obvious, so they opted for a ventilated rain screen facade. The façade panels were mounted by the façade construction company Kiebitzberg using aluminium structures made by BMW Montagetechnik. The HI-MACS® FR elements (in Alpine White), which is specifically designed for external use, were fixed onto the structures with KEIL inserts invisible from the outside. The mineral material is composed of 70 % natural stone powder, 25 % high quality acrylic resin, 5 % natural pigments, and is extremely wear-resistant and durable.

Tom Klingbeil is fascinated with HI-MACS®. "The supporting, space-enclosing, insulating and moisture-regulating external wall demonstrates excellent thermal properties. For example, in combination with external cellulose insulation, this timber-frame construction reduces the use of energy to just 70 % of the energy used in a reference object as per EnEV 2009." The wind-proof and breathable external shell makes damp proofing completely unnecessary. The interior formaldehyde-free glued laminated OSB-4 panel, also serving as a cross-brace, is just a vapour barrier. The external timber panel is finished by a cement-bound fibre-reinforced plasterboard.













Its versatility has led to the HI-MACS® solid surface material becoming established as an ecologically sound high-quality product in the world of architecture and design. It can also 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 natural property of adapting to temperature fluctuations makes HI-MACS® the perfect material for 3-dimensionally shaped façade elements such as the embrasures of the Wiese residence. 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. Four other colours in the HI-MACS® façade range also achieved great results in regard to fire rating. In addition, twelve more colours included in the HI-MACS® programme can be used in nearly any relevant areas due to their B1 rating according to DIN 4102-1.

In his choice of material, Volker Wiese was mostly impressed with the high quality of the acrylic stone: "The delicate surface feel of HI-MACS® was exactly what I was looking for in terms of quality. HI-MACS® allowed me to implement my idea of building in a sustainable way." Wiese also values the non-porous smooth finish of the solid surface. "I expect that it will be easy to clean, durable and weather-proof." These expectations are backed up by certified tests carried out on the HI-MACS® FR series designed for external use. The products beat all other mineral materials as well as solid surfaces in the ETA certification test in terms of UV resistance. Therefore, LG Hausys confidently offers several warranties for the façade colour range (\*for more information visit www.himacs.eu).



















### www.himacs.eu

#### WHAT IS HI-MACS®?

A new generation acrylic stone, **HI-MACS**<sup>®</sup> is a material that is designed and produced by **LG HAUSYS**, a world leader in the technology sector, and distributed by **LG HAUSYS EUROPE**, based in Geneva (Switzerland).

Due to its thermoformable properties, its wide range of colours, its translucency and the invisible joins, HI-MACS® is able to provide an infinite number of designs and exclusive finishings. Moreover, this material can be worked as easily as wood as it is easy to handle and to cut.

As regards hygiene, HI-MACS<sup>®</sup> does not absorb humidity and is highly resistant to stains. Its smooth and non-porous surface means that it is not penetrated by liquids. Completely sterile, this material is easy to clean and to repair.

Unlike other similar materials on the market, HI-MACS<sup>®</sup> is the only Solid Surface to enjoy official **European Technical Approval (ETA) for façades** – for Alpine White S728 colour – which was awarded by the European Organisation for Technical Approvals (EOTA).

During the manufacturing process, HI-MACS<sup>®</sup> is heated to very high temperatures by means of an advanced firing heat treatment. This procedure makes HI-MACS<sup>®</sup> different from other types of acrylic stone, giving it better uniformity and making it more resistant to shocks and UV rays.

Acrylic stone provides infinite possibilities for personalised designs and inspires professionals 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<sup>®</sup>, from kitchens to bathrooms, including decorative items, in hotels as well as in museums, shopping centres and on external façades.

HI-MACS<sup>®</sup> is available in around 100 different colours in various ranges; **Solids, Granite, Sand, Pearl & Quartz, Volcanics, Lucent, Eden, Galaxy** and **Marmo,** in different thicknesses of 3, 6, 9 and 12 mm, depending on the shade. HI-MACS<sup>®</sup> holds a number of international certifications with regard to the environment, hygiene and fire resistance, such as **ISO 9001** and **14001**, **Greenguard, NSF, LGA** and **IMO MED** certification (Modules B and D), among others.

HI-MACS<sup>®</sup> stands out for its excellent quality service, guaranteed by its **Quality Club** programme, consisting of a network of expert manufacturers and approved distributors across Europe. HI-MACS<sup>®</sup> offers the longest guarantee service on the market: 15 years.

For more information:

www.himacs.eu

### HI-MACS® The New Generation

#### Inspired by Architecture

You can take advantage of the HI-MACS<sup>®</sup> newsletter and Press service to upload all your press releases and visuals of your latest news.

