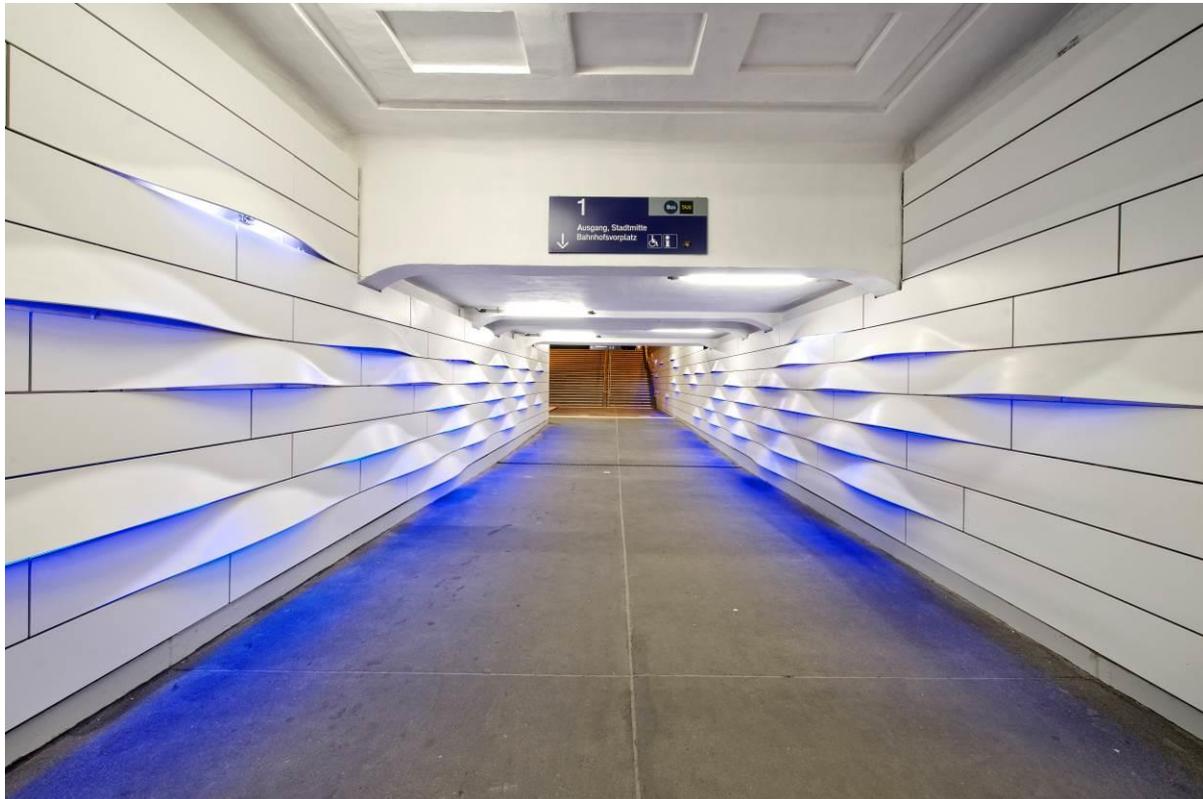


Reconstruction of the public transport station, to include a wheelchair-accessible extension and an extension of the platform undercrossing

## **HI-MACS® offers creative freedom in public areas**



*As part of the preparations for the Regional Garden Show 2014, many urban and green areas in Schwäbisch Gmünd were restructured, linked and upgraded. The pedestrian undercrossing at the Gmünd station was reconstructed and extended within the scope of these plans, creating an attractive and lively link between the areas to the south and the north of the train tracks. The walls of the tunnel were designed using the weather and wear resistant HI-MACS® material.*

The reconstruction of the undercrossing was decided in a tender advertised by the town authorities. The town authorities invited local designers and architects - including four student teams from the Hochschule für Gestaltung Schwäbisch Gmünd - mentored by Klaus Marek of "preiswerk marek architekten" architecture firm - to submit their ideas. The Swiss architects provided their support in the winning student project and assume responsibility for implementation planning.

### **The green belt**

The new undercrossing connects the old southern and the new northern part of the town of Schwäbisch Gmünd and the newly created green areas.

The walls of the tunnel are covered with white HI-MACS® curved panels, while indirect lighting guides visitors coming to the town. They flow from the main hallway to the access passages to platforms. The staircases are harmonically integrated in the design and accompany pedestrians to their destination with changing light displays. These displays are controlled via dynamic effect lighting. The lighting concept refers to the topics at the Regional Garden Show. In the summer, the lights mirror fresh leave movement with sun rays shining through, while red and brown shades of autumn colours appear between the leave movement during the autumn and winter seasons. At night, the tunnel glimmers in nightly blue.

The architect, Klaus Marek, was looking for a material which would allow him to implement the three-dimensional shapes of the student design. The structure needed to be simple and strong, as large numbers of visitors are expected to attend the show. At the same time, the aim was to prevent damage by vandalism in future. With the support of 5D Engineering from Dresden, who is responsible for the statics and engineering drawing, he opted for the solid surface material HI-MACS®. The HI-MACS® Solid Surface seemed to be the perfect solution: Its non-porous smooth finish consists of 70% natural stone powder, 25% high-quality acrylic resin and 5 % natural pigments. This composition makes it resistant to vandalism. The acrylic stone can be thermoformed. This property allowed Marek to implement the organically-uniform shapes of the panels with a high level of surface aesthetics. "The only way to implement the design was by using a solid surface material. At the same time, the properties of the material comply with all rail-specific requirements in regard to wall coverings in pedestrian undercrossings: It is thermoformable, completely homogeneous and has a smooth finish, it is weather and impact resistant, easy to clean and can be solidly and invisibly attached to the wall."

The 2.5 m long HI-MACS® panels are mounted on an agraffe using a stainless steel undercut anchor, hinged reversibly into an aluminium façade substructure. Open horizontal and vertical joints compensate temperature-related length changes and ensure the necessary level of wall ventilation. The plane aluminium plate substructure covers the concrete wall, while acting as a reflector for the effect lighting at the same time. The cavity behind the curved panel is used for mounting the lights.

"There is no other material which offers this creative freedom in combination with a high level of functionality in terms of durability and resistance to environmental impacts" says Marek about HI-MACS®.

## PROJECT INFORMATION

**PROJECT:** Pedestrian subway train station Schwäbisch Gmünd

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**PLACE:** Schwäbisch Gmünd, Germany

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**DESIGN & PLANNING:** preiswerk marek architekten [www.preiswerkmarek.ch](http://www.preiswerkmarek.ch)

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**ENGINEERING:** 5D Engineering [www.5d-engineering.com](http://www.5d-engineering.com)

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**MATERIAL:** HI-MACS<sup>®</sup> Alpine White [www.himacs.eu](http://www.himacs.eu)

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**PHOTOGRAPHER:** Uwe Röder

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# HI-MACS® by LG Hausys

## Surfacing the World

[www.himacs.eu](http://www.himacs.eu)

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

### Inspired by Architecture

For more information and to stay connected, visit our [website](http://www.himacs.eu).

Let's connect!



\* 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).