

A new bone marrow transplant ward at the Niño Jesús Hospital, Madrid

## **The brightness and warmth of HI-MACS® gives a soul to the Maktub children's hospital**



In a hospital, the environment, organisation and working system strongly influences patients and their families and can cause stress. If these patients are children the impact is even stronger, due to the psychological and emotional value that children place on the environment that surround them.

This project, inspired by the emotional sensitivity and positivity of children, was created in partnership with the Aladina Foundation and the University of Granada to equip the **Maktub Centre** with the best systems and the most advanced technology for bone marrow transplants, from separate electrical systems to avant-garde pressurisation systems.

Architect **Elisa Valero** has gone beyond merely technical aspects to create a space that reduces the sense of isolation in children with immune system deficiencies. The new design of the space aims to meet functional necessities through eliminating or transforming what are normally perceived as hospital elements.

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High resolution photos available at [www.himacs.eu/press](http://www.himacs.eu/press)

The unit has six separate cubicles on the South side of the wing overlooking a glass gallery that welcomes visitors. The initial aim was to enlarge the structure and so the spaces have been reorganised to adapt to the constraints that the structure and the pre-existing drainage system imposed. The second aim was to eliminate obstacles that impeded the view outside. The old central corridor, which had no natural light, is now a gallery illuminated by large windows overlooking a garden. In between the corridor and rooms there are service areas located inside variously sized rooms, which help create a large variety of spaces.



It is worth noting that Maktub is the first centre in Europe to carry out clinical studies in pediatric photobiology. Photobiology was also used in the lighting design, which studies the effect of light on human wellbeing. The natural light that enters the Southern gallery cubicles is controlled by motorised anti-glare or total darkness curtains and the artificial light has been designed for the visual comfort of the children and to make the nurses' work easier. This is why white LED lights with a latest generation triple chip and the RGB model with 856 colours, used in chromotherapy, have been used.

The project was completed in two months with the added difficulty that the upper and lower floor of the hospital continued to be used during work. This required extraordinary precision and coordination of various activities.



This is why the architect decided to use different materials, including **HI-MACS®**. The design required a thermoforming material with an elegant, simple design that eliminated joints between the various structures. “I was looking for a long-lasting material that met hospital regulations and could be modelled to eliminate corners in the corridors, to avoid being hit by beds coming in and out of the rooms,” said architect Valero. Therefore we didn’t need to use impact

protectors and minimised the presence of equipment. This, together with colours and shapes, helped create a pleasant, playful atmosphere.

Thanks to its aseptic properties, the fact that it is easy to clean and resists chemical agents, acrylic stone is recommended in clinics and healthcare spaces that have to respect the highest standards of hygiene. The aesthetic qualities of stone create warm, welcoming environments, even in spaces that are not usually like this. Several studies have shown that this has a positive influence on patients and their convalescence.

## PROJECT INFORMATION

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**Project:** Maktub Centre, bone marrow transplant ward, Niño Jesús Hospital

**Promoter:** Niño Jesús University Children’s Hospital, Madrid and the Aladina Foundation

**Location:** Madrid, Spain

**Designed:** Elisa Valero <http://www.elisavalero.com>

**Material:** HI-MACS® Alpine White [www.himacs.eu](http://www.himacs.eu)

**Photograph:** Fernando Alda

## WHAT IS HI-MACS®?

A new generation acrylic stone, **HI-MACS®** 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® 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® 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® is heated to very high temperatures by means of an advanced firing heat treatment. This procedure makes HI-MACS® 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®, from kitchens to bathrooms, including decorative items, in hotels as well as in museums, shopping centres and on external façades.

HI-MACS® 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® 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® 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® offers the longest guarantee service on the market: 15 years.

For more information:

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

### HI-MACS® The New Generation

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