



# HAUKELAND PAEDIATRIC HOSPITAL BERGEN



A NEW HOSPITAL  
COMPLEX WITH  
ARDESIA SLABS  
TO ENHANCE THE  
SURROUNDINGS

The Haukeland University Hospital in Bergen, Norway, has been extended thanks to the construction of a new department dedicated entirely to paediatric care. Construction of the new building started in 2011 and was completed in 2017 and over the next few years the hospital management is also thinking about adding more wings to the structure.

The client asked the designers to combine all the babies and children's wards in a single unit so that all the patients and treatment areas could be managed more easily. One part of a new building will be reserved for the maternity ward at a later stage. The client also specified that only safe, eco-friendly products should be used: in fact, the building has been awarded Breeam certification (Building Research Establishment Environmental Assessment Method), a European reference protocol for the design, construction and management of sustainable buildings.

Mapei supplied products to build part of the new building, particularly the large reception area where patients are welcomed to the hospital, the changing rooms, the bathrooms and the three new swimming pools.

The external façades, the inside of the swimming pools and the floors and walls in the reception area, changing rooms and bathrooms were all dressed with Alta slate, a special clay-based porcelain tile which can be found in some specific zones of Norway. This type of stone requires the use of specific, durable adhesives and grouts.

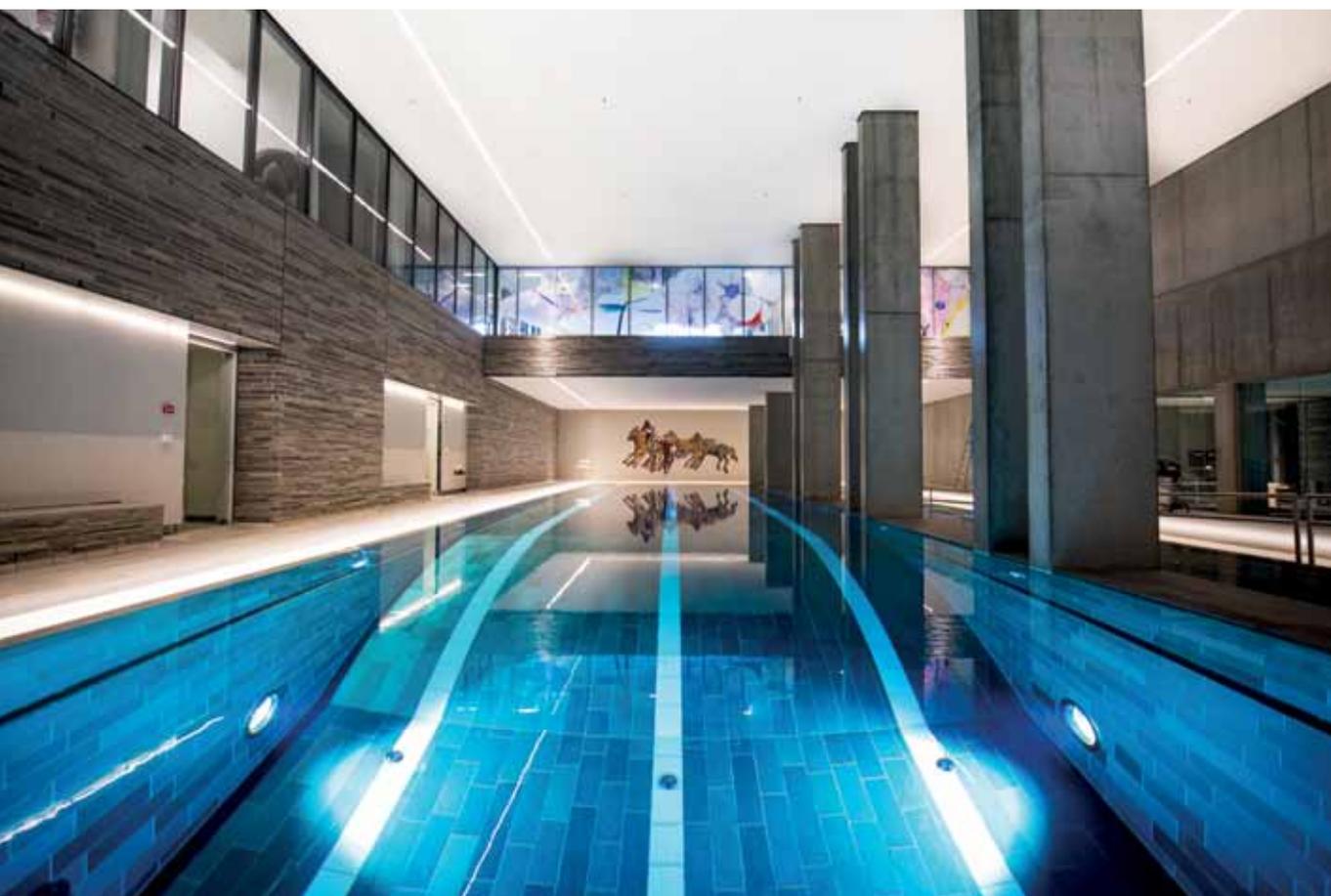
The products chosen for this particular work were CONPLAN



**ON THE FACING PAGE.** The corridor of the hall was dressed with Alta slate, a local type of porcelain tile, which was installed using ULTRALITE S1 (above). The entrance of the Paediatric Hospital (below).

**ON THIS PAGE, ABOVE.** The bathrooms and showers were waterproofed with MAPELASTIC and ardesia slate was installed with ULTRALITE S1 and ULTRALITE S2.

**BELOW.** The area where the swimming pool and baths are located was waterproofed with MAPELASTIC and dressed with Alta slate.





ABOVE. The grout lines were filled with KERACOLOR GG and the joints were sealed with MAPESIL LM and MAPESIL AC.

ECO R rapid self-levelling mortar to form substrates from 3 to 20 mm thick, CONFIX spray-applied mortar to repair the concrete and MAPEPOXY L epoxy adhesive to repair the cracks. These products are all made and sold in Norway by Mapei AS. The concrete surfaces were restored with MAPEGROUT T40 thixotropic mortar. Where required, surfaces were waterproofed with MAPELASTIC two-component cementitious mortar, which is particularly suitable for creating highly flexible, protective waterproof coatings on structures subject to cracking. To install the slabs of ardesia, Mapei Technical Services recommended ULTRALITE S1 one-component, high performance adhesive, while ULTRALITE S2 lightweight cementitious adhesive was the preferred choice for the large format slabs. The product chosen to fill the grout lines was KERACOLOR GG high-performance, polymer-modified cementitious mortar for grout lines from 4 to 15 mm wide. The expansion joints were sealed with MAPESIL LM and MAPESIL AC.

**IN THE SPOTLIGHT**

**ULTRALITE S1**

One-component, high-performance, flexible, lightweight, cementitious adhesive of C2TE S1 class, with no vertical slip and long open time, Low Dust technology and extremely high yield. Easy to apply by trowel with excellent wetting properties, with very low VOCs. It may be used to bond all types and sizes of ceramic tiles on uneven internal and external substrates, without having to even out the surface

before fixing. Also suitable for all types of mosaic on internal and external surfaces even in swimming-pools and for natural stone on internal and external surfaces (for stone which is stable and not sensitive to humidity) and for thin porcelain tiles on floors and walls, including external façades.



**TECHNICAL DATA**

**Haukeland Paediatric Hospital,** Bergen (Norway)

**Period of Construction:** 2011-2017

**Period of Mapei Intervention:** 2016-2017

**Intervention by Mapei:** supplying products for carrying out and waterproofing substrates and for installing and grouting slate slabs

**Project:** KHR arkitekter, Studio 4 arkitekter

**Client:** Helse Bergen

**Works Direction:** Lars Petter Smidt

**Contractor:** Helse-Bergen

**Installer Company:** Veidekke/Smistad Mur og flis as

**Mapei Distributor:** Norfloor Bergen

**Mapei Coordinator:** Viggo Breivte & Kenneth Nilsen (Mapei AS)

**MAPEI PRODUCTS**

Carrying out substrates and repairing concrete: Conplan Eco R\*, Confix\*,

Mapegrout T40, Mapepoxy L\*

Waterproofing surfaces: Mapelast

Installing ardesia: Mapesil AC, Mapesil LM, Keracolor GG, Ultralite S1, Ultralite S2

\* These products are manufactured and marketed on the Norwegian market by Mapei AS

For further information on products see the websites [www.mapei.no](http://www.mapei.no) and [www.mapei.com](http://www.mapei.com)