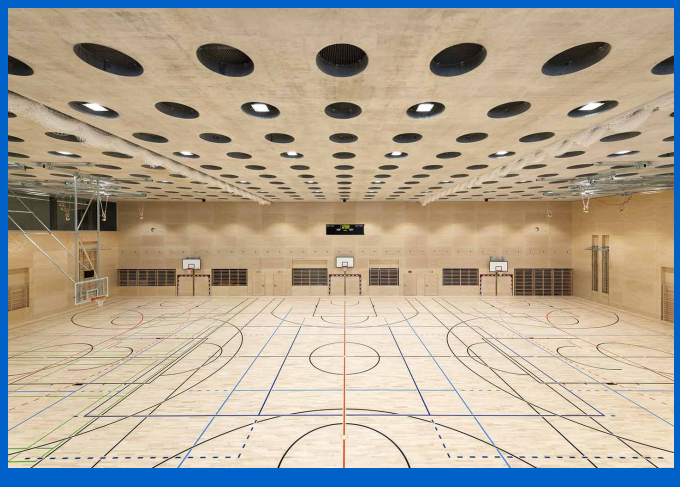
References

Primary school Kundl



Uponor involvement

- 3,000 sqm Uponor Thermatop M ceiling cooling and heating
- 1,450 sqm Uponor Siccus sports floor system
- 1,800 sqm Uponor Classic Underfloor Heating

Primary school Kundl

Comfort makes the grade
The Tyrolean town Kundl has inaugurated its new primary school, including a large sports hall. Surface heating and cooling systems from Uponor, including a special sports floor system, ensure pleasant temperatures for learning and sports.

Project Facts:

Location Kundl, Austria	Completion 2020	
Building Type Sports facilities	Product systems Radiant Heating & Cooling, Multilayer Pipe Systems	
Address 6250 Kundl	Website https://www.zugspitz-resort.at/	Project Type New building

Partners

Building owner:
Marktgemeinde Kundl
https://www.kundl.tirol.gv.at/

Architect:
Scharfetter_Rier_Ramoni, Innsbruck
http://scharfetter-rier.at/

Planner specialist:
SHP Stiefmüller Hohenauer und
Partner GmbH, Kundl
https://www.shp.at/

Installation:
Markus Stolz GmbH & Co KG
https://www.stolz.at/

Comfort makes the grade

September 2020 was very exciting for many children in Kundl: At the start of the school year, they were able to move into their new school building for the first time. The Tyrolean municipality invested around 27 million euros in the new primary school and a triple sports hall. The construction was preceded by a competition, which was won by the architects Scharfetter_Rier_Ramoni from Innsbruck. The new school is barrier-free and completely geared towards contemporary learning. The pupils enter the central cloakroom of the primary school through a roofed entrance. Here on the ground floor are also the assembly hall, library, work and drawing rooms as well as the rooms for afternoon care. The first and first floors are mainly used for teaching. The triple sports hall is underground and can be divided into three areas by means of partition walls. The whole community benefits from the hall because it is also available to Kundl's clubs and has its own entrance on the west side of the site. The site also includes an existing building, the Neue Mittelschule. It will be extended by new rooms in the course of the construction work. All areas - new and old buildings - are connected underground. The outdoor facilities are still in progress; they are scheduled for completion in the course of 2021.

One of the largest orders for Uponor in Tyrol

All of this was a major project not only for the municipality of Kundl and the planning and construction team, but also for the Uponor company: "There is more modern Uponor technology in the two new buildings than in any other school in Austria", says Artur L. Mair, sales representative at Uponor. The entire school building is equipped with the Thermatop M heating and cooling ceiling. The Siccus sports flooring system is installed in the hall, and Classic underfloor heating in its adjoining rooms. "The trend in school construction is clearly towards surface temperature control. Cooling is a high priority, because in a room with 25 or more children, temperatures rise quickly, and climate change also plays a role," explains project engineer Lukas Erharter from Stiefmüller Hohenauer & Partner GmbH (SHP). For 30 years, SHP has been planning and supervising the complete building and electrical engineering for national and international construction projects that focus on renewable energies. The new buildings in Kundl draw environmentally friendly district heating from the municipality's grid, while cooling is provided by a groundwater pump. "Surface systems have many advantages over conventional technology, such as radiators or air conditioning systems. Their uniform, comfortable radiant heat and coolness promotes well-being. Especially with

cooling surfaces, there is no unpleasant draught, as is often the case with air-conditioning systems. The low flow temperatures ensure high efficiency with low operating costs", summarises Uponor expert Mair.

Heat and cold come from the ceiling

"In the school building, we opted for the Thermatop M heating and cooling ceiling because this system is particularly responsive. It can raise or lower the temperatures in the classrooms within a very short time, for example after breaks. At a certain point in spring we switch completely to cooling and at the beginning of winter to heating," explains engineer Erharter. A total of around 3000 square metres of space is equipped with Uponor Thermatop M. The system consists of lightweight, prefabricated heating and cooling elements made of multi-layer composite pipes. They are installed in the standard ceiling substructures by means of a simple click assembly, so that the trades of structural work, dry construction and heating construction are completely separated from each other - this simplifies the installation.

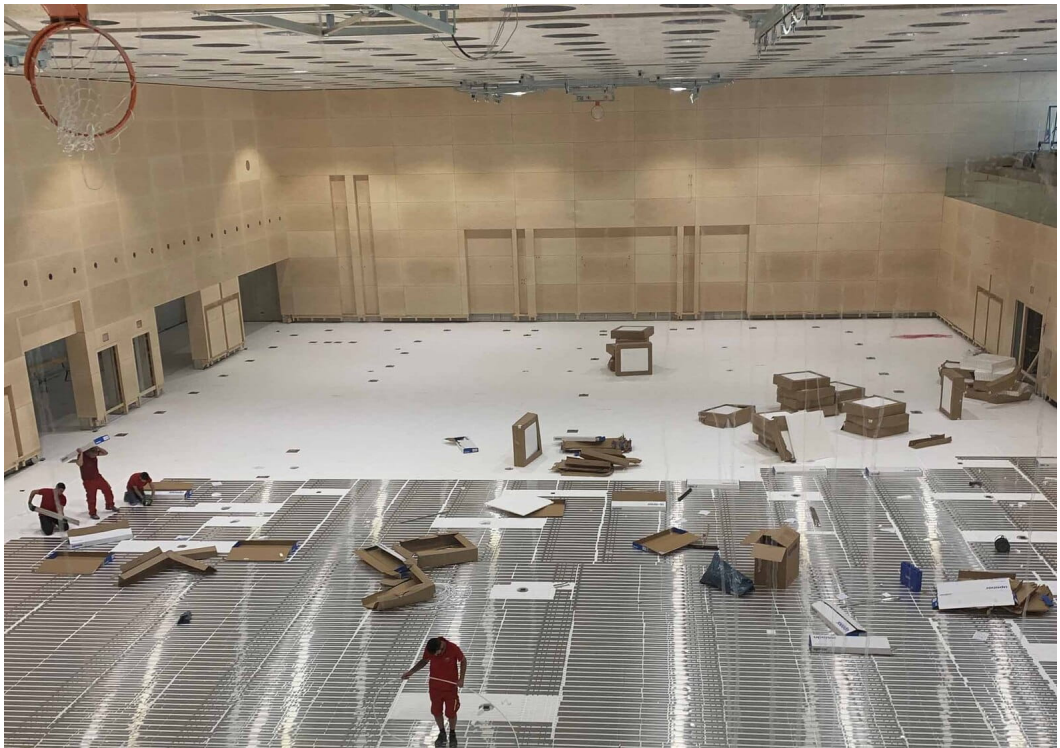
Special solution for sports halls

In the sports hall, the comfortable temperatures do not come from the ceiling, but from below. The Uponor Siccus sports floor system takes care of both the heating and cooling of the 1450 square metre hall. It was specially developed and tested for the requirements of sports and sprung floors. "Our Siccus system is installed invisibly in the floor and is maintenance-free. There are no system components that could interfere with ball games, for example, or that athletes could injure themselves on. In addition, unlike radiators, the entire usable area remains intact," explains Mair. The Classic underfloor heating system - a wet construction system installed in the screed - supplies the changing rooms and other ancillary rooms on 1800 square metres.

Good climate for learning success

The planners could always rely on the experience and know-how of the Uponor specialists: Uponor provided the necessary references for the local council's decision-making and supported the planning of the individual surface systems in the school and sports hall. The family business Markus Stolz GmbH & Co KG with its location in Kramsach was responsible for the installation. The company has already realised many projects with Uponor. "We appreciate the easy installation of the products and the good cooperation with the Uponor team," says engineer Dominik Lechner from Markus Stolz GmbH & Co KG. Whether the children in Kundl enjoy going to school now and in the future depends, of course, on many factors. In any case, the indoor climate offers the best conditions for learning success and fun.

Primary school Kundl







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