

Irjala School and Day Care Center - Good indoor air quality as the goal of dust control

The goal of the City of Tampere Facility Center, even as an imperative, was to achieve good indoor air in the Irjala School and Day Care Center in Tampere. Thus, the main contractor, Hartela, was required to build according to the so called P1 cleanliness requirements.*



Irjala School and Day Care Center is a two-storey house of 3200 m². The nursery has 190 nursery places and the school has been designed for 140 students. Construction work was completed in November 2018. (Source: City of Tampere Facility Center)

Systematic purity management in blocks

For the construction according to the P1 purity class*, a purity management plan was created for the site. In Hartela, purity management is well known, and the company also trains management and employees in P1 purity class construction and dust control.

There are 3 blocks on each floor, A, B and C, of the construction site. The progress of the site is well planned and anticipated by blocks. In each block, dust control is carried out by compartmentation, ventilation, negative pressure units, and source extraction devices. The premises are also continuously cleaned according to P1 purity class requirements.

On site, P1 purity management is especially taken into account in IV installations, which are made with the help of protective walls and by overpressure. Dust creating jobs are not done during IV installation and IV pipes are protected to prevent any dust from entering the pipes.



Clean lungs, cleaner site. Simple as that.

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CAMU keeps even the bomb shelter dust free

Consair CAMU source extractors were introduced in the control of dust caused by dry mix blending and slab cutting, as the master builder, Oskari Sirén, had good previous experience. The decision on the acquisition of CAMU was made together with the area engineer on site.

There are two CAMU devices on site, one of which has a fixed location in the future bomb shelter space downstairs and the other in the upper deck, where it is placed in a separate mixing booth to ensure purity control. The mixing booth has sometimes had to be dismantled to make room for a dividing wall, and rebuilt.



“The guys think CAMU is a good device, it takes away the unnecessary dust so that it does not float around here, and this space does not become a dust bomb shelter.”

* In Finland the purity class P1 of the construction project aims to ensure that the premises of the finished building are clean when it is handed over to the customer. At the same time, impurities from the construction phase are prevented from entering the indoor air during the use of the building. When a developer aims for the S1 or S2 indoor air quality class, the project must be carried out in accordance with the so called P1 purity standards.

CAMU has been well received on site and has been used for dust control of a lot of dry matter mixing. CAMU has been used by tile workers and has been utilized not only for tiling but also for casting sloped drain flooring. About 5 sacks, ie. 200 kg per day of mixing work is done per day, and the device has lasted and worked well in the dusty and dirty work.

Foremen Juha Ollila and Johan Aalto noted that it was easier to keep the site clean thanks to CAMU. Compared to a previous site, the clear difference is that the ceiling is not gray from dust. Dust can be controlled with plastic walls, but with CAMU dust can be recovered immediately before it can float onto the site. Employees have stated that they prefer to use CAMU rather than work in dust in the mixing booth with negative pressure.



Hartela is one of the the largest nationwide construction companies in Finland. It constructs apartments, business facilities and develops properties and areas. The Finnish family company employs about 600 professional construction workers.

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