The renovation of the building facade created a new, proud look that pays homage to old architecture.
A facade renovation gave the housing company AS Oy Humaltarhantie 2 in Porvoo a new, proud look that pays homage to old architecture. In addition to the facade, new windows and doors were installed to improve the energy efficiency of the residential building. The building’s roof was also transformed. The finished block of flats has a fresh, new look that honours the previous appearance of the building.

The renovation started when a condition survey found that it was time for the facade to be renovated. The balconies in the building had already been repaired, and the work continued with the facade as well as the doors and windows. “It’s always cheaper to pick your own time for the repairs instead of waiting until you have to do it”, emphasises technical expert Teijo Lilja from OP-Isännöintikeskus, which manages the building. The aim of the change was to create a new, timeless look that honoured the old one. Small details gave the building a touch of modernity.

Many factors were considered in the design of and material choices for the facade; in addition to a more impressive appearance, the aim of the renovation was also to make structural improvements. More protection and a new wearing surface were added to the building, in addition to improving the energy efficiency through additional insulation. Cembrit’s materials were selected for the building thanks to their durability and their light, fresh appearance.

### Facts

Product:  
- Faveton Ceram  
- Cembrit Permabase  
- Cembrit Patina  

Building:  
As Oy Humaltarhantie  

Address:  
Humaltarhantie 2, Porvoo  

Head developer:  
AS Oy Humaltarhantie 2  

Architectural design:  
T:mi Rakennusarkkitehtti Taina Valkeavirta  

Structural design:  
Insinööritoimisto Timo Alapere Oy  

General contractor:  
Lähiökunnostajat Oy  

Completion year:  
2016
A new look that pays homage to the old
The surroundings of the residential building or its old facade did not pose any major restrictions for the renovation. “There are many different kinds of buildings around Humaltarhantie 2. There are both red-brick buildings as well as panel-faced buildings in the neighbourhood. The land use plan didn’t feature any major regulations, either”, the site’s construction architect Matti Valkeavirta explains, describing the material choices for the facade.

Originally, the building facade had a surface of light-coloured exposed-aggregate concrete, and there was no desire to change it completely. Therefore, board plastering in colours that matched the building’s old shades was selected for the facade. “The exposed-aggregate surface is a bit heavy, so a lighter material was chosen for the building. The plastered surface is also a timeless classic”, Valkeavirta states, highlighting the benefits of board plastering. In addition, Teijo Lilja of OP-Isännöintikeskus notes that exposed-aggregate concrete is challenging as a material; it often looks better than its real technical condition would merit, which is why analyses are an essential part of planning.

Even though aim of the facade renovation was not to create a completely new look for the building, clear details were added to distinguish it from the old style. The long sides of the building have light-coloured plastered surfaces, but brick-red Faveton tiles were used at the gables to perk up the otherwise pale building. In addition, eaves were added to the building, as it did not have them before. Through coloured Cembrit Patina boards were used underneath the eaves.

A ventilated plastering solution that creates energy efficiency
The housing company wanted to improve the energy efficiency of the building at the same time as the facade renovation. This was done by adding more insulation and fitting new doors and windows. The additional insulation also affected the building’s facade. “When more insulation was added, the only option was to build a ventilated plastering system”, says Regional Manager Janne Kettumäki from Lähiökunnostajat, the project’s building contractor.

The ventilated plastering system was implemented using board plastering with Cembrit’s Permabase boards. “Board plastering is the only ventilated plastering system. It leaves a ventilation gap of approximately 25 mm between the insulation wool and the board, creating a free ventilation channel from the eaves down to the plinth. We have used Cembrit in all ventilated plastering systems and found it good. This was one site among many”, says Kettumäki. Kettumäki himself has 30 years of experience of building facades and 15 years of experience working with building boards for plastering. In addition, he was already familiar with Cembrit materials.

Building a ventilated plastering system step by step went smoothly. “First, we bolted the old elements to secure them to the inner skin, after which we built a steel frame. Insulation wool was placed between
the frame and crossbars were fitted on top of it, which created a ventilation gap in between. After this, building board was attached to the crossbars and plastered”, Kettumäki lists the steps. As for the Faveton ceramic tiles, they were attached using a supporting frame system. Other work was also done on facade materials on site. “We had to cut boards for the window walls, but that wasn’t too hard, because the material of the facade boards is easy to cut”, Kettumäki says.

New doors and windows were installed to improve energy efficiency. “At this site, installing the windows was a bit challenging, because there were differences in the openings. We tried to take as much advantage of the existing openings as possible, meaning that the windows were made with pretty strict measurements. It took a bit more work, but the end result was definitely worth it”, Teijo Lilja explains.

**Construction to schedule and with residents in mind**
The construction was carried out to schedule, and the facade renovation was finished in the autumn of 2016. “Overall, the project went well and we avoided the worst pitfalls. The work went well from the start, and the repairs were completed on time”, Lilja says and mentions that the weather also favoured the renovation. The plastering was finished during the summer, but the installation of Faveton ceramic tiles lasted after the end of the summer. “Cembrit’s products were fitted later, because they are not so sensitive to weather, and we also had to schedule the window fittings”, Lilja explains.

Many different parties participated in the facade renovation, all the way from the board of the housing company to the designers and the building contractor. A clear flow of information between the different parties made the work easier. Almost the whole board of the housing company participated in the site meetings, and an evening event was arranged to present the facade renovation plans to the residents. At the event, the residents could ask the architects, the structural designer and the building manager any questions they had.

The aim was also to take the residents into account in other ways during the facade renovation. “At this site, the plastering was carried out from mast climbing work platforms, and the building was not covered completely at any stage. The renovation did not include any work that would have made it necessary due to dust or other reasons”, Lilja says. In general, the renovation was fairly painless, even though the building had to be covered a few times for a short time as the renovation progressed.

**From a grey sparrow to a proud and elegant building**
Insulation plastering was used on the facade at Humaltarhantie 2. This distinguishes it from the other buildings in the environment, where boards have been used in the facade renovations. “In my opinion, this facade renovation was especially successful, and the building looks amazing”, Lilja boasts. Lilja is pleased with the architectural and colour choices made in the facade renovation: “On paper, the colours always look a bit different from how they will look in reality, so I have to tip my hat at the architects, who have a good eye for colour and can see the building as a whole.”

Lilja also likes that the building was not modernised with a heavy hand, ensuring instead that it looks like an old building in excellent condition. “Still, the place is completely different now. It used to be a grey sparrow, but now it looks proud. I think that the freshening up of the building went well, and the small details really make it look elegant”, Lilja says.
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