

**CENIBRIT Case**

# White and black Cembrit Solid boards accentuate the facade

Old administrative building blossoms into impressive residential building in Turku





The 12-metre glazed balconies overlooking the Aura River along with the white and black Cembrit Solid boards that accentuate the facade provide an impressive look for the 110-metre-long residential building constructed in an old administrative property on Linnankatu in Turku. The through-coloured fibre-cement boards are durable and almost maintenance-free in the urban environment.

Rakennustoimisto Laamo Oy was the main contractor for the extensive renovation project completed in August 2020, which involved constructing 43 modern high-quality housing units into a former administrative building. Located at Linnankatu 55 by the Barkerinpuisto park, the tall windows and glazed balconies of the Asunto Oy Flow 55 Linnanrinne residential block command a stunning view of the Aura River across the park.

The floor areas of the flat vary between 34 and 145 m<sup>2</sup>. The main designer for the property was Arosuo Arkkitehdit Oy, and the structural engineering was handled by Insinööritoimisto Milan Oy.

The renovation of the building, which is situated in a central location in the heart of Turku, is part of the efforts to vitalise the harbour and Kakolanmäki areas. The three-storey, 110-metre-long building

## Facts

Products:	Cembrit Solid and Cembrit Windstopper
Building:	Asunto Oy Flow 55 Linnanrinne
Address:	Linnankatu 55, Turku
Main designer:	Arosuo Arkkitehdit Oy
Structural engineering:	Insinööritoimisto Milan Oy
Installation of the board facade:	VS Rappaus ja Maalaus Oy
Main contractor:	Rakennustoimisto Laamo Oy
Completed:	2020



has the feel of an urban terraced house: the two-floor flats at ground level have their own terrace yards and glazed patios facing the river. The upper floors feature glazed balconies.

The aim was to use high-quality construction materials that are durable and aesthetically impressive. White and black Cembrit Solid facade board was selected as the material for the long wall surfaces on the side of the yard and the Aura River. The same board was also used for balcony walls.

The alternation of the black and white surfaces brings rhythm and vibrancy to the building's long facades. The black surfaces also accentuate the brightness of the white sections. The stark contrast lends an eye-catching look to the facade.

#### Harmonious and modern look

"The look of the facade is harmonious and modern. All aspects of the end result are impressive," says **Mikko Hallisto** from VS:n Rappaus ja Maalaus Oy, which handled the installation of the board facade.

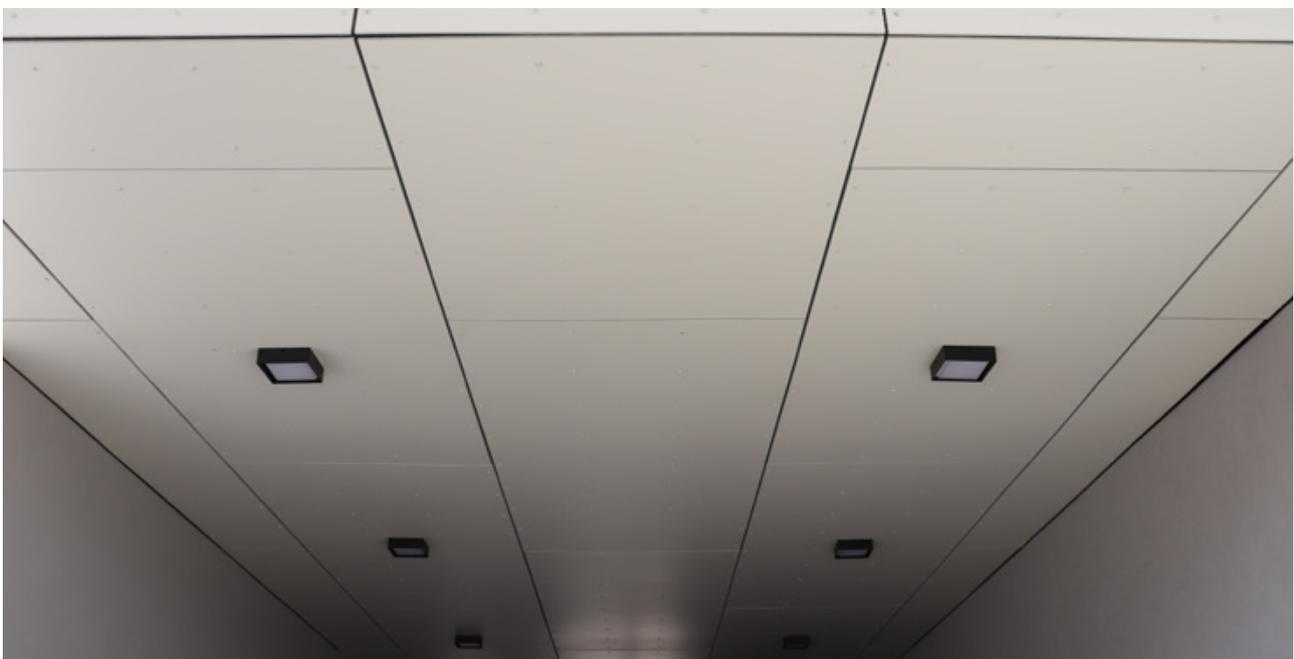
The company specialises in facade renovations for housing companies and public buildings.

"We have plenty of experience with Cembrit facade boards. They are suitable for a wide range of renovation projects. By selecting the right board size and colour, the architect can achieve just the right look for the facade," Mikko Hallisto says.

He finds that the Cembrit Solid facade board was an excellent fit for the building.

Coloured all the way through and coated with acrylic paint of the same hue, the facade board provides the building with a striking and durable coloured surface. The facade colour is exceptionally intense but the overall look from all directions is calm and serene. The through-coloured fibre cement board requires very little maintenance and does not show small scratches and dents.

"The renovation and modernisation of the former administrative building into a residential building



was an extremely challenging project. The starting points are vastly different than in the context of constructing an entirely new building. The old frame is not straight and includes some significant deviations from the straight line,” Mikko Hallisto explains.

The facade boards were installed on top of wooden battens. “With long facades, you need to have the skill to dimension a straight support frame and fit all joints precisely based on the planned board distribution since even small hitches and deformations stand out in a facade that is 110 metres long. Extreme care must be made with the preparations.”

#### **Fibre cement board withstands weather stress**

According to Hallisto, the facade work was handled and coordinated with work phases in close cooperation with the main contractor Laamo.

“Especially with a renovation project like this, the number of things that must be coordinated with other work phases is massive in the context of facade work.”

The structural details were confirmed in cooperation with the architect and structural engineer.

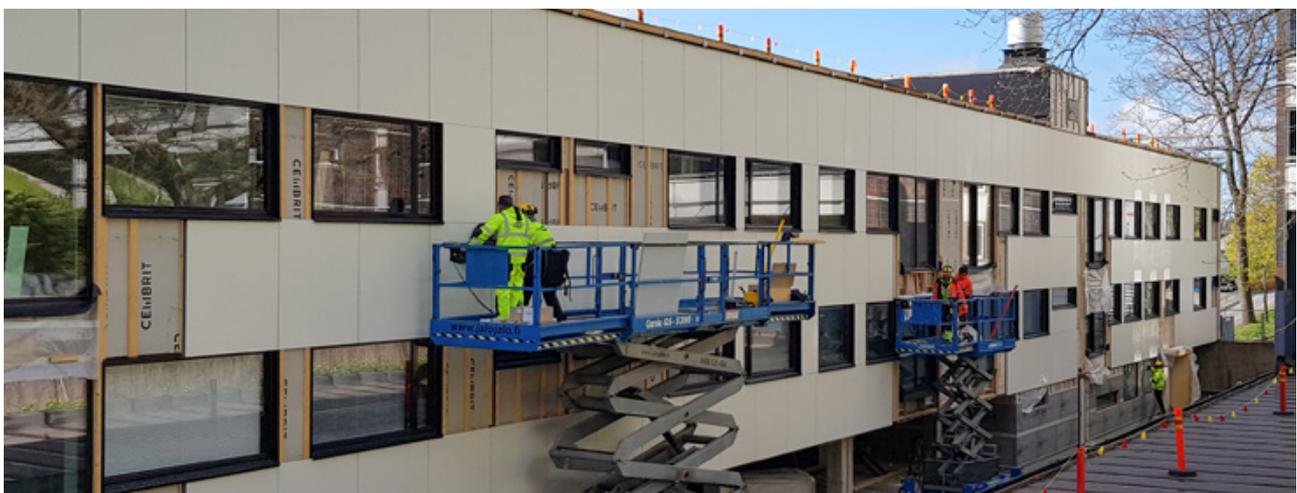
“For example, it is important to design and implement the roof eave details and water drainage around various joints with care to ensure a functional and durable end result. The cooperation with all parties was smooth and the dialogue was open,” Hallisto says.

The fibre cement boards are sturdy and extremely resistant to heavy weather exposure. They are highly resistant to algae and moss, which the increasing weather and moisture stress caused by climate change is making more and more prevalent on the surfaces of many materials. This ensures that the facade looks impeccable every season and every year and requires very little maintenance.

#### **Ventilated structure ensures reliability**

A board facade is a ventilated structure, which has become significantly more popular in recent years. A ventilated facade provides reliable moisture performance since any moisture evaporates through the ventilation gap and does not stress the structures. The entire facade structure remains dry and functional in all weather conditions.

For the renovation project, Cembrit Windstopper wind barrier boards were used behind the Cembrit Solid facade boards and ventilation gap.



The cement-based wind barrier board is extremely resistant to moisture, sound-insulating and fireproof.

The ventilated structure also contributes to ensuring that the indoor air is safe and healthy. Since moisture deteriorates the insulation properties of heat insulants, the ventilated structure improves the building's energy efficiency.

“Because the facade was very long and featured a lot of sections that needed to be fitted to the old building frame, the board layout could not be sufficiently finalised beforehand to get cut-to-spec boards from the supplier. The boards were cut and perforated for fastening on site. We were able use the surplus pieces from cutting in the rear walls

of the balconies, for example. We ordered boards in two sizes and were able to use a lot of them as delivered,” Hallisto describes.

According to Mikko Hallisto, aside from the impressive building being situated in a spectacular location, another thing to note about the project is its exceptional construction time.

“In addition to the designers and contractors, I would like to thank Cembrit for the smooth cooperation. With the pandemic, there was some concern that some products might not arrive when needed. Yet the facade boards always turned up at the site as agreed, so the deliveries were impeccable in that regard,” Mikko Hallisto says.



Image: Hi-Con

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