Objektbericht *Project Report*

Scandinavia as a prime example:
Rheinzink material masterfully recycled and restaged after three decades

A famous museum in Finland's capital city of Helsinki is becoming a Rheinzink material resource for new buildings being constructed in Sweden and Finland. 600 square meters of the very well-preserved titanium zinc is now on its way to Halland in Sweden, where a new building is being constructed with materials that will have a second life.

StevenHoll_Kiasma_Helsinki_Finnland1992-1998_02_FotoRheinzink.jpg

The Kiasma Museum in Helsinki, built in the late 1990s.

Kiasma, the Museum of Contemporary Art in Finland, was designed by Steven Holl and realized in the late 1990s. However, due to a defective substructure, with defects particularly in the interior gutters and drainage channels, some spots developed pitting in the cladding material. The museum is currently being renovated and will again receive titanium zinc cladding. But the old, still intact material will also be put to reuse. This is because the Swedish real estate company Chalmersfastigheter wanted to use building materials that had already been used for the construction of the visitor center of the Onsala space observatory.

StevenHoll_Kiasma_Helsinki_Finnland1992-1998_01_FotoRheinzink.jpg

The many well-preserved zinc standing seam panels are given a new life on other construction projects.

Titanium zinc as a great opportunity for the environment

With this project, the construction company intends to show how easy it can be to reuse materials, even on a large scale, and minimize the environmental footprint, as well as material costs. Project manager Pär Johansson is convinced: "The use of new materials is currently responsible for a large part of the climate impact. With this project, we are hoping to gain a better picture of which materials have recycling potential." The project manager sees zinc panels as a great opportunity for construction projects and for the environment. After all, thanks to their high quality and versatility, nothing stands in the way of an individual facade design, despite the fact that they have already been in use for almost 30 years. Rheinzink titanium zinc will soon be used in Sweden for door and window coverings and gutters. The project managers are confident that by reusing the material, no unscheduled work will be required. For the sake of ensuring transportation in whole panels and preventing unnecessary damage, the zinc panels were carefully loosened at the joints and dismantled from the museum building. A truck will be used to transport the titanium zinc to Helsinki

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So far, many other interested parties have come forward to reuse the Rheinzink material for other projects. Plus, a part of the titanium zinc is going to Vantaa in Finland to give a new recycling plant a high-quality look with a modern façade. Jari Virmanen, project manager at HSY (Helsinki Environmental Services) points out numerous benefits offered by the Rheinzink material:

- Long service life
- Minimal maintenance requirements
- Recycling saves almost half of the CO2 normally produced by such a construction project.

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The dismantled RHEINZINK sheets neatly stored.

"We are very pleased that leftover zinc sheets from the renovation are to be used," says Selja Flink, project manager in Helsinki at the Kiasma Museum. "The idea originally came from the manufacturer of the titanium zinc panels, RHEINZINK, who told us that Chalmersfastigheter was looking for reusable material for the new facility in Sweden." Zinc sheets are normally melted down. Putting this material back to use will now save a lot of energy.

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Turning old into new. On the right, a panel as it was used at the Kiasma Museum. On the left, a cover edged from this material, as it will be used at the Onsala Space Observatory in Sweden.

Climate-neutral visitor centre

Just south of the major Swedish city of Gothenburg is the large Onsala Space Observatory, founded in 1949 by Professor Olof Rydbeck. It currently houses large radio telescopes used for astronomy and geodesy. The observatory's new visitor center is scheduled to open in December 2021. This will include an exhibition space, a conference room, and a control room for the SALSA telescopes. The building will be realized in a carbon-neutral manner and will be made of 85% recycled material in order to satisfy the client's focus on sustainability. The construction company has found an ideal partner for its project in Rheinzink. Project manager Pär Johansson is sure that the project will motivate more people in the construction industry to invest in recycling zinc sheets as well as other materials.

New RHEINZINK façade for Kiasma

Work is also progressing in Helsinki to complete the newly renovated museum. As the National Gallery of Finland and a museum of contemporary art, Kiasma is a prestigious project. The Finnish government's goal is to be a pioneer in the circular economy, preserving the value of the material for as long as

possible. Given the titanium zinc's outstanding eco-balance, high quality and individual design options, Rheinzink was once again chosen for the museum's new façade.

RHEINZINK titanium zinc as the optimum solution

Project managers in Sweden and Finland agree: the reuse of titanium zinc works in theory and in practice and, using the right methods, can become an important part of the solution when it comes to climate protection. With the construction of the visitor centre in Onsala, the real estate company aims to set an example and inspire many other contractors to also consider the option of reusing material that is still in good condition in the future. To ensure that reuse may soon become the norm in the construction industry.

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