

THOUGHT OF EVERYTHING: CRADLE TO CRADLE SILVER FOR INNOVATIVE ALUMINIUM FAÇADE SYSTEM HUECK TRIGON FS

The German aluminum system house HUECK presented its newly developed facade system with the attributes "ultra slim, ultra strong and ultra flexible". Since its market launch, HUECK Trigon FS has been convincing through its filigree design, versatile combinability and high glass loads. In the entire development process of the system and its product life cycle, its ecological balance and circular economy were taken into account. This sustainability focus has now been recognized with the award of the Cradle to Cradle certificate in silver.

Environmental aspects taken into account in development

"From the beginning of the development process, we designed our new facade solution taking into account the environmental influences along the entire value chain. As stipulated in the HUECK World Life Balance, we focus on the efficient use of resources, a long service life and recyclability in the development and manufacture of all of our system solutions. This sustainability focus has now been honored by the Cradle to Cradle Products Innovation Institute with the certification in silver for our facade," says Christian Wedi, product manager for facade systems at HUECK.

The entire modular system of the HUECK Trigon FS was tested by EPEA GmbH - Part of Drees & Sommer (EPEA) and certified with Cradle to Cradle Silver. This also includes the extended system applications of the facade in the polygonal layout and in the roof area, as well as their use as Structural Glazing (SG) facade solution from the same kit, which is currently under development and will be available at the beginning of 2022.

The Cradle to Cradle certification framework offers a holistic view of the entire circular added value of products. In doing so, it looked beyond the pure product features of the facade system and so, for example, an inventory was made of the supply chains that have an impact on HUECK Trigon FS. The result was a broad, holistic overview of the resources used and the ecological footprint of the aluminum facade solution. It is precisely this holistic approach that HUECK strives for in the Green Balance action field within the HUECK World Life Balance corporate philosophy.

Defined sustainability standards at HUECK

"One of our stated corporate goals is to have all of our new products certified by Cradle to Cradle. The safety of our profile systems and their complete product life cycle for people and the environment is a central development issue at HUECK. The Cradle to Cradle certification framework offers an important tool for self and external control," explains product manager Christian Wedi.



Figure 1: Facade system HUECK Trigon FS receives Cradle to Cradle certification in silver

The monitoring of the ecological balance of the profile systems is in line with the sustainability focus of the German aluminum system house. This was defined in the Green Balance as one of the three action fields within the HUECK World Life Balance. The aim is a balanced equilibrium between environmentally conscious, economic and social aspects, which are reflected in the Cradle to Cradle certification catalog. The awareness of the scarce availability of resources and the responsible use of them is anchored in the company's longstanding tradition. Holistic planning is the prerequisite for long-term ecological and economic success. With the Cradle to Cradle certification, architects, investors and builders have an additional opportunity to meet the complex requirements of modern, sustainable and intelligently planned buildings.



Figure 2: Thanks to the use of aluminum in the facade, the QO Hotel in Amsterdam was honored with the LEED Platinum certification.

Aluminium as a sustainable resource

Traditionally, aluminum is the central material for the HUECK product family. Due to its durability and high level of recyclability, aluminum scores well in the holistic view of the product life cycle according to the Cradle to Cradle specifications. Its changeability, longevity and unlimited reusability are particularly convincing in the comprehensive examination of the product life cycle. It is precisely these properties of aluminum that have convinced many architects and builders to use this material in their sustainable building projects. For example, the Marienturm in Frankfurt am Main or the QO Hotel in Amsterdam were able to achieve the highest level of LEED certification for sustainable buildings through the use of HUECK aluminum facade systems.

The Cradle to Cradle certification framework

The Cradle to Cradle certification process is characterized by a holistic examination of the product life cycle - from the cradle to the cradle. The EPEA sees Cradle to Cradle as the "scientific basis for implementing a circular economy in the construction and real estate industry" (EPEA GmbH - Part of Drees & Sommer, 2021). The Cradle to Cradle certification framework includes the following holistic principles: material health, recyclability of the material, use of renewable energies, responsible use of water and social justice. HUECK Trigon FS achieved silver in the criteria of material health, material recyclability and social justice. It received gold in the categories of use of renewable energies and handling of water. These partial results resulted in the overall silver certificate for the versatile facade system.

Further awards in the HUECK product family

The HUECK Trigon FS aluminum facade system has not received its first award with the Cradle to Cradle certification in silver. It has already received the German Design Award from the German Design Council for its filigree appearance and outstanding design quality.

The aluminum profile systems for windows and doors with a construction depth of 75mm from HUECK have also already been tested and evaluated by the Cradle to Cradle Products Innovation Institute. The HUECK Lambda WS / DS 075 construction kit carries the Cradle to Cradle certification in bronze. In addition, HUECK's window, door and facade systems are regularly checked by ift Rosenheim and their environmental impact is recorded in Environmental Product Declarations (EPD).

HUECK uses the results of the regular checks of the ecological footprint within the HUECK World Life Balance to continuously improve the quality of the system solutions. Constant further development and improvement where it makes sense and is beneficial is a tried and tested basic attitude that has been pointing the way for the entire organization for decades.

Further information on the Cradle to Cradle Silver certification of the HUECK Trigon FS is available here: <https://www.c2ccertified.org/products/scorecard/hueck-trigon-fs-040050060-sg-aluminium-facade-system-hueck-system-gmbh-co-kg>



Figure 3: HUECK Trigon FS received the German Design Award for its excellent product design.