StoraEnso

Trähuset i Sävja
Uppsala, Sweden

Sävja Trähus marks a pivotal moment in Swedish residential development: a five-story, all-wood apartment building in Uppsala that has achieved the prestigious ZeroCO2 certification. Recognised as one of the world's most demanding climate standards, ZeroCO2 certification verifies that a building's entire lifecycle emissions—from material sourcing to construction and operation—are minimised and balanced by renewable energy or carbon offsets.

Design and sustainability highlights

Developed by Skandia Fastigheter and designed by LINK Arkitektur, Trähuset i Sävja is not only designed for this rigorous benchmark, but has officially met its requirements, demonstrating how climate-smart timber construction can deliver truly low-emission, high-performance housing in an urban context.

The building offers 47 rental apartments, within a full timber structure-frame and elevator shaft included. Recycled windows and reused materials are featured throughout, while the solar-optimized design and native landscaping maximize both energy efficiency and biodiversity. The envelope is tailored to local climate and topography, ensuring minimal energy demand year-round.

'Trähuset's design is not just visually appealing, but also highly functional. By breaking up, shifting, and angling the volume, it adjusts to the human scale. This form also optimises daylight and solar panel conditions. The façade panels are staggered and overlapped, which makes them easier to prefabricate and assemble. At the same time, this creates a refined detailing that contributes to the overall design,' explains LINK Arkitektur.

Protection

To safeguard the exposed end grain of the Sylva CLT elements, a factory-applied, weather-resistant End Grain Sealer was used. This breathable, acrylate-based coating provided up to 12 weeks of temporary moisture protection, ensuring tight tolerances and long-term durability-without the delays or risks of on-site application.

Digital Installation

Assembly was further streamlined with Sylva360™, Stora Enso's digital installation assistant. By linking 3D models to on-site QR codes, the construction team could instantly identify, locate, and track every timber component, minimizing errors and accelerating the build. This digital workflow ensured that Trähuset i Sävja's climate ambitions were matched by precision on site.

Precision lifting

For safe and efficient handling, blind hole power clamps were used to lift and position the Sylva elements. These specialised devices engage with pre-drilled, non-through holes, enabling strong, concealed connections and maintaining the clean architectural finish. Factory preinstallation optimised load distribution and reduced on-site labour, supporting both safety and efficiency.

A Measurably Low Carbon Footprint

Environmental coordination by AURA Sustainable Building Design ensured the project met NollCO2 and Miljöbyggnad Silver standards. For construction and production (A1-A5), the building achieved just 179 kg CO_2/m^2-52% below Sweden's upcoming regulatory limits.

The Sylva kit generated 58 tonnes of CO_2e in manufacturing and 6 tonnes in transport, while the timber itself stores 842 tonnes of CO_2, and the choice of mass timber over non-renewables avoided an additional 1,263 tonnes of emissions. Source.

Sustainably Sourced Timber

The Sylva™ elements were made with wood sourced from PEFC-certified forests, ensuring that the timber used comes from sustainably managed forests. PEFC is one of the most trusted and widely recognised certifications for sustainable forest management.

As cities seek low-emission alternatives, Sävja Trähus stands as a replicable model-perfectly aligned with Stora Enso's mission to replace fossil-based materials with renewable ones.

As urban developers seek low emission alternatives, Sävja Trähus stands as a replicable model-one that aligns perfectly with Stora Enso's mission to replace fossil-based materials with renewable ones.

Curated by Louisa Russell.

Text verified by Skandia Fastigheter and LINK Arkitektur

General

Delivery year

2024

Building type

Multi Residential

Area (m²)

3,500

Storeys

5

Units

47

Photo credit: ©Skandia Fastigheter

StoraEnso

Products

Products and Services

Sylva™ CLT Walls, Sylva™ CLT Floors and Roofs, Sylva™ GLT Beams and Columns, Preinserted lifting devices , Sylva360™, End Grain Sealer, Temporary Membrane

Product quality

NVI and VI / 100 % PEFC certified

Product volume (m³)

1,105

Team

Developer

Skandia Fastigheter

Architect

LINK Arkitektur

Main contractor

Wästbygg