Net-negative insulation material - Finland

Price 20 € / CORC

ITEM

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DEALER

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DESCRIPTION

Ekovilla offers carbon net-negative cellulose fibre insulation (CFI) made from renewable natural resources. One tonne of Ekovilla's CFI removes 1,11 tonnes of CO2 eq. from the atmosphere into long-term storage in the product. The insulation is suitable for both new construction and renovation projects and it is used in 10,000 buildings annually. Once installed, CO2 is stored in durable building structures for a minimum of 50 years. It is industrial carbon removal to help corporations achieve their climate targets and take proactive steps towards carbon net zero.

How it works

Growing trees capture carbon which is then stored in bio-based construction materials. Sustainably grown wood is used for producing newspapers, which are recycled and used as the main ingredient for manufacturing Ekovilla's cellulose fibre insulation (CFI).

Once CFI is installed, CO2 is locked and stored in buildings for decades.

CARBON REMOVAL INFORMATION

Carbon removal method :	Bio-based construction materials
Capture of CO2:	Photosynthesis
Stabilization of CO2:	Pre-cut building element
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Permanence:	Over 50 years
Status of production:	Audited
Unit of product volume:	tonne
Embodied carbon in product:	1,102
Year of first issuance:	2019
Minimum amount to negotiate:	1000
Examples of usage:	

Public buildings, such as schools, industrial and residential buildings, townhouses and summer cabins.

Co-benefits:

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Puro.earth CORCs only quantify the net-removal and storage of emissions, not reduced or avoided emissions, increased biodiversity or other positive benefits. Here are co-benefits self-reported by the removal supplier.

1. Healty indoor air: The indoor air humidity is kept at an optimal level with Ekovilla breathing cellulose insulation.
2. Reduce waste: Cellulose insulation helps reduce discarded paper that according to IPCC (p.17) is emitted back to the atmosphere in 2 years. With Ekovilla insulation that CO2 embodied in the waste paper is locked-up to a storage for the life time of the building.
3. Avoid emissions: Use of our product can displace use of other insulation materials like polystyrene (EPS) or mineral wool. At best nearly 7 tons of CO2 emissions may be transformed to 1 ton of CO2 removal.
4. Green jobs: manufacturing cellulose insulation creates green jobs.

Economic acceleration impact:

The extra income from Puro.earth allows Ekovilla to develop it's concept of using local waste paper and board materials further, converting it to insulation and other net-negative products. For example, Ekovilla slab products were also turned to net-negative by adopting the same methods and concept, which are used for blown wool products – this development project was partly financed by using the income from CORC sales. Also, with CORC revenue, the company is ramping up a waste-free packing & installation process, in which they will use metal containers instead of plastic bag packaging. Containers are packed directly in the production process and refilled after every installation.

Climate Impact

1 tonne of Ekovilla's cellulose fibre insulation (CFI) removes 1,11 tonnes of CO_2 eq. from the atmosphere into long-term storage in the product. Life-Cycle Assessment made by VTT followed the methodology described in ISO 14044 and ISO 14064 standards where applicable.

Additional information

Ekovilla's cellulose fiber insulation carbon removal project was reviewed by Carbon Plan, a non-profit research organization that analyzes carbon removal opportunities based on the best available science and data. Their report and comments are publicly available for carbon removal mechanism, volume, negativity, permanence, cost, additionality and specificity, here https://carbonplan.org/reports (search for Ekovilla)

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AUDIT INFORMATION

Audit statement :

https://static.puro.earth/live/uploads/tinymce/Suppliers/Eco_Up_Ekovilla/EcoUp_Ekovilla2022_PURO_Verificati

Independently verified by: DNV