Bio-based construction credits

Price 25 € / CORC

ITEM

Item URL: https ://puro.earth/100041

Item reference number #100041

DEALER

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DESCRIPTION

CORCs are available for purchase from issuances until 2022. New issuances will not be made due to the revised Puro Standard requirements for the carbon storage durability. Read more here.

Are is a company that specializes in producing bio-based construction materials from sustainably managed local forests. The CO2 sequestered by the tree is stored for 50 to 100 years or more, creating a CO2 removal beyond the peak of global emissions. Their process is highly efficient, ensuring the removal of 532 kg CO2 per m3 of timber product.

The company has four production sites in Norway, each serving the local building market. They use high-tech computer control cutting processes to produce roof trusses, joists, and other pre-cut wall elements, which minimizes waste. The large share of renewable energy in Norway also contributes to low process emissions. All products are made-to-measure, so there is no loss of materials on site.

Each cubic meter (m3) of glulam beam stores 532 kg of CO2 that the timber absorbed from the atmosphere during its growth period. Are has accurately calculated the average net carbon content of each timber building element that they produce. All emissions from the harvesting of the timber, transport to the production facility, through to the production and packaging of the products were accounted for in the life cycle assessment (LCA) that Accend performed in accordance with ISO 14067 standards. DNV GL audited the facility, LCA, in December 2022.

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:	m3
Embodied carbon in product:	532/m3
Year of first issuance:	2021
Avoided emissions (mention avoided emissions in tonnes):	300 kg/m3

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Examples of usage:

Commercial buildings such as hotels, cinemas
School buildings
Green infrastructure projects; tunnels and bridges
Houses and cottages
Agricultural buildings

Co-benefits:

Replacement of concrete and steel in the construction industry, both of which have heavy greenhouse gas footprints.
Better air. Wooden buildings "breathe" better than traditional structures offering benefits to the occupants of the buildings.
Harvesting and managing forests sustainably decrease the risk of forest fires, insects, and diseases.
For each tree that is harvested, two are planted, resulting in expanding forest cover. Active forestry helps to sequester more CO_2 than natural growth. Norwegian and Swedish forests are growing by around 25-30 million cubic meters of wood each year.

Explanation of avoided emissions:

The Puro Earth methodology describes CO_2 removals, or drawdown of emissions, not emissions reductions or avoidance. The 532 kg/m3 of CO_2e is a removal, NOT an avoided emission. Avoided emissions from the use of their products are primarily created by substituting concrete and steel in buildings. For comparison, 1 m3 of timber product from Are removes 532 Kg/m3, whereas a comparable re-inforced concrete beam has a footprint in excess of 300kg/m3. Such avoided emissions avoidance are additional to the CO_2 that gets removed by Are's products.

Economic acceleration impact:

The income from the sale of CORCs allows Are to be more competitive and win more tenders, further increasing the share of timber in buildings in relation to concrete or other less sustainable products.

Posted on : 29/11/2021

AUDIT INFORMATION

Audit statement :

https://static.puro.earth/live/uploads/tinymce/Suppliers/ARE/Are_As__2021_PURO_Verification_State

Facility ID: 643002406801000121

Independently verified by: DNV GL