

Oplandske Bio. Biochar, Norway

Price 200 € / CORC



ITEM

Item URL: <https://puro.earth/100128>

Item reference number #100128

DEALER

Oplandske Bio

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DESCRIPTION

Oplandske Bio is a Norwegian bioenergy company from the Opland and central region. They operate district, local and process heat operations based on renewable bioenergy from the region. Oplandske Bio built the first industrial-scale pyrolysis plant in Norway at Rudshøgda in the municipality of Ringsaker.

The biochar manufacturing facility sells steam as a bi-product to a large meat processing facility located adjacently. The facility was purpose-built and is very modern and highly automated.

The woodchips that are used as feedstock are sourced from a nearby forestry company and are PEFC certified. The transport distance to the facility is less than 2km.

The production facility attained the EBC sustainable biochar certification this year.

The biochar has a very high carbon content, 92%, each dry ton of biochar contains 3,36 tonnes of C_Q. A lifecycle assessment (LCA) of Oplandske Bio's production process was carried out by Accend in September 2021. The LCA accounts for all process emissions from harvesting of the wood, chipping, transport of woodchips to the production site, and the manufacturing of the biochar on site and confirms that 3 tonnes of CO₂ are stored for every 1 ton of biochar.

Biochar from Oplandske is used in numerous commercial and research applications including animal litter, feed as well as urban applications such as replacing concrete.

CARBON REMOVAL INFORMATION

Carbon removal method :	Biochar
Capture of CO₂:	Photosynthesis
Stabilization of CO₂:	Pyrolysis
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Permanence:	Over 1000 years
Status of production:	Audited
Unit of product volume:	tonne
Embodied carbon in product:	3,0
Year of first issuance:	2021
Minimum amount to negotiate:	50

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Examples of usage:

- | Animal feed
- | Soil improvement for agriculture and urban environments

Co-benefits:

- | Harvesting and forestry management sustainably decreases the risk of forest fires, insect damage and diseases.
- | Biochar is deployed directly or indirectly for soil improvement. It dramatically increases water and nutrient retention in the soil leading to yield increases.
- | Biochar reduces nutrient leaching, which has caused damage to waterways and seas. Biochar reduces the need for artificial fertilizers, which are typically energy-intensive to produce.
- | Green jobs: The production of biochar creates green jobs throughout the value chain from harvesting to distribution and usage.
- | The use of biochar as an animal feed additive has well-documented health benefits and reduces methane emissions.

Explanation of avoided emissions:

| The baseline scenario for the usage of wood chips is combustion in bioenergy production. In other words, in the absence of Oplandske's biochar production, the wood chips used as feedstock would be burnt resulting in the release of CO₂ and short-lived climate pollutants including soot, carbon monoxide, and volatile organic compounds such as methane, thus contributing to global warming. The usage of biochar in concrete has an enormous potential to reduce CO₂ emissions if fully commercialized.

Economic acceleration impact:

| The extra income from Puro.earth allows Oplandske Bio to develop and grow the business. The company has plans to scale up operations at the site given that they are able to sell the biochar and CORCs. Revenue from the sales of CORCs is an essential part of their business case for future investment.

Posted on :

| 30/11/2021

AUDIT INFORMATION

Audit statement :

| https://static.puro.earth/live/uploads/tinymce/Suppliers/Oplandske/Facility_Audit_statement_28042

Facility ID:

| 643002406801000398

Independently verified by:

| bio.inspecta AG