



ENVIRONMENTAL PRODUCT DECLARATION

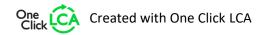
IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Kiilto Pro Fine Combi Kiilto AB



EPD HUB, HUB-2558

Published on 14.02.2025, last updated on 14.02.2025, valid until13.02.2030







GENERAL INFORMATION

MANUFACTURER

Manufacturer	Kiilto AB
Address	Box 395, 891 28 Örnsköldsvik, Sweden.
Contact details	Peter Forsberg, peter.forsberg@kiilto.com
Website	www.kiilto.se

EPD STANDARDS, SCOPE AND VERIFICATION

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Program operator	EPD Hub, hub@epdhub.com								
Reference standard	EN 15804+A2:2019 and ISO 14025								
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023								
Sector	Construction product								
Category of EPD	Third party verified EPD								
Scope of the EPD	Cradle to gate with options, A4, and modules C1-C4, D								
EPD author	Alva Nilsson, Kiilto AB								
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☑ External verification								
EPD verifier	Imane Uald Lamkaddam as an authorized verifier for EPD Hub								

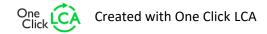
The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Kiilto Pro Fine Combi
Product reference	Small bag 014
Place of production	Hallstahammar, Sweden
Period for data	01/09/2023-31/08/2024
Averaging in EPD	No averaging
Variation in GWP-fossil for A1-A3	-

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of Kiilto Pro Fine Combi screed
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	3,68E-01
GWP-total, A1-A3 (kgCO2e)	3,62E-01
Secondary material, inputs (%)	0.89
Secondary material, outputs (%)	80
Total energy use, A1-A3 (kWh)	1.28
Total water use, A1-A3 (m3e)	0







PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Kiilto is a growing, family-owned company, with over a hundred-year history and a vision looking ahead to 2080. We develop, produce and sell chemical industry solutions in four business areas: construction, industrial adhesives and fireproofing, professional hygiene and consumer goods. Please find more info at www.kiilto.com.

PRODUCT DESCRIPTION

Kiilto Pro Fine Combi is a readily workable, fast curing cement based fine and construction filler compound with paste like consistency. The product is free from casein, low-alkaline and suitable as underlayment indoors for most coverings.

Further information can be found at www.kiilto.se.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass- %	Material origin
Metals		
Minerals	95-100	Europe
Fossil materials	0-5	Europe
Bio-based materials		

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	
Biogenic carbon content in packaging, kg C	0.00188

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of Kiilto Pro Fine Combi screed
Mass per declared unit	1 kg

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).







PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Pro	duct st	age		embly age			U	se sta	ge	ge End of life stage Beyon the systen bounda es							m lari	
A1	A2	А3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1 C2 C3 C4		D				
x	х	х	x	MND	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	х		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstr./demol.	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

Modules not declared = MND. Modules not relevant = MNR.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

Raw materials are simple and come from national suppliers (Sweden) or Europe. Main raw materials are cement, sand and fillers (Calcium carbonate etc.). The raw materials coming from Europe are transported by trucks or train and then shipped to the coast of Sweden. Within Sweden the raw materials are transported by trucks to Hallstahammar factory.

The production of the self-levelling compound consists of four steps: raw

material manufacturing, raw material transportation to Hallstahammar factory, mixing and packaging. During the mixing all raw materials are added in big mixing vessel where they are mixed. The majority of the product volumes are packed in paper bags. The capacity of the bag is 20 kg. This scenario has been considered in this study.

The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission. There is no internal transport on the factory site because manufacturing site is very compact. Only resource that has been used is electricity. Emissions to air are not relevant either.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

The transportation impacts that occur from the delivery of the final product to the construction site cover direct exhaust emissions of fuel, environmental impacts of fuel production, as well as related infrastructure emissions. The transportation distance is defined according to average distance, and is assumed to be 230 km and the transportation method is assumed to be a lorry. Vehicle capacity utilization volume factor is assumed to be 100 % which means full load. Empty returns are not taken into account as it is assumed that return trip is used by the transportation company to serve the needs of other clients. Transportation does not cause losses as product are packaged properly.

Installation does not apply to the product and that is why there are no material or energy consumption to be considered during the installation stage.







PRODUCT USE AND MAINTENANCE (B1-B7)

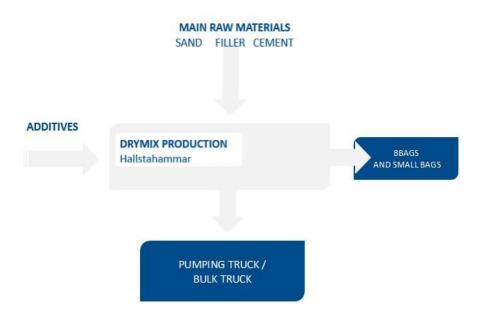
Product use and maintenance is considered negligible due to their minor existence.

Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

At the end-of-life, in the demolition phase 100% of the waste is assumed to be collected as separate construction waste. The demolition of 1 kg of building material is assumed to take up 0,01 kWh. (C1). All of end-of-life product is assumed to be sent to the closest facilities (C2). 80% of the end-of-life product is sent to recycling (C3). 20% is sent to the landfill (C4). Due to the 80% recycling potential, the benefits for recycling brick and load for rock crushing are considered, and the end-of-life product is converted into recycled raw materials (D).

MANUFACTURING PROCESS (A3)









LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging materials	Not applicable
Ancillary materials	Not applicable
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	No averaging
Averaging method	Not applicable
Variation in GWP-fossil for A1-A3	-

This EPD is product and factory specific and does not contain average calculations.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.8, Plastics Europe, Federal LCA Commons and One Click LCA databases as sources of environmental data.







ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO₂e	3,62E-01	2,94E-02	MND	3,31E-03	6,39E-03	1,21E-02	2,44E-03	6,88E-04							
GWP – fossil	kg CO ₂ e	3,68E-01	2,94E-02	MND	3,31E-03	6,39E-03	6,61E-03	1,05E-03	-6,21E-03							
GWP – biogenic	kg CO₂e	-6,90E-03	1,22E-05	MND	0,00E+00	1,32E-08	5,53E-03	1,38E-03	6,91E-03							
GWP – LULUC	kg CO₂e	2,43E-04	1,18E-05	MND	3,30E-07	2,55E-06	5,17E-06	9,94E-07	-8,61E-06							
Ozone depletion pot.	kg CFC ₋₁₁ e	1,98E-08	6,85E-09	MND	7,07E-10	1,49E-09	1,35E-09	4,26E-10	-5,22E-10							
Acidification potential	mol H†e	1,45E-03	1,20E-04	MND	3,44E-05	2,61E-05	5,70E-05	9,90E-06	-4,07E-05							
EP-freshwater ²⁾	kg Pe	3,26E-06	2,14E-07	MND	1,10E-08	4,64E-08	1,73E-07	1,10E-08	-3,68E-07							
EP-marine	kg Ne	4,63E-04	3,58E-05	MND	1,52E-05	7,78E-06	2,14E-05	3,43E-06	-8,80E-06							
EP-terrestrial	mol Ne	3,90E-03	3,94E-04	MND	1,67E-04	8,58E-05	2,35E-04	3,77E-05	-1,15E-04							
POCP ("smog") ³⁾	kg NMVOCe	1,16E-03	1,24E-04	MND	4,59E-05	2,69E-05	6,55E-05	1,10E-05	-2,95E-05							
ADP-minerals & metals ⁴⁾	kg Sbe	3,22E-06	9,73E-08	MND	1,68E-09	2,12E-08	2,19E-08	2,42E-09	-6,26E-08							
ADP-fossil resources	MJ	4,98E+00	4,41E-01	MND	4,45E-02	9,59E-02	1,14E-01	2,89E-02	-9,25E-02							
Water use ⁵⁾	m³e depr.	1,04E-01	2,11E-03	MND	1,20E-04	4,60E-04	1,17E-03	9,16E-05	-1,23E-02							

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.





ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	С3	C4	D
Particulate matter	Incidence	8,87E-09	2,88E-09	MND	9,22E-10	6,25E-10	7,15E-09	1,99E-10	-5,22E-10							
Ionizing radiation ⁶⁾	kBq U235e	1,06E+00	2,31E-03	MND	2,05E-04	5,03E-04	1,12E-03	1,31E-04	-1,47E-03							
Ecotoxicity (freshwater)	CTUe	1,84E+00	3,71E-01	MND	2,68E-02	8,07E-02	8,01E-02	1,88E-02	-1,11E-01							
Human toxicity, cancer	CTUh	1,16E-10	1,11E-11	MND	1,03E-12	2,42E-12	4,87E-12	4,71E-13	-6,45E-12							
Human tox. non-cancer	CTUh	3,45E-09	3,82E-10	MND	1,94E-11	8,30E-11	6,74E-11	1,23E-11	-1,18E-10							
SQP ⁷⁾	-	1,81E+00	3,95E-01	MND	5,79E-03	8,58E-02	1,17E-01	6,18E-02	-8,91E-02							

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	B7	C1	C2	С3	C4	D
Renew. PER as energy ⁸⁾	MJ	3,72E-01	6,39E-03	MND	2,54E-04	1,39E-03	6,23E-03	2,51E-04	-8,62E-03							
Renew. PER as material	MJ	6,73E-02	0,00E+00	MND	0,00E+00	0,00E+00	-5,39E-02	-1,35E-02	-6,73E-02							
Total use of renew. PER	MJ	4,40E-01	6,39E-03	MND	2,54E-04	1,39E-03	-4,76E-02	-1,32E-02	-7,59E-02							
Non-re. PER as energy	MJ	3,19E+00	4,41E-01	MND	4,45E-02	9,59E-02	1,14E-01	2,89E-02	-9,25E-02							
Non-re. PER as material	MJ	1,80E+00	0,00E+00	MND	0,00E+00	0,00E+00	-1,44E+00	-3,61E-01	-1,80E+00							
Total use of non-re. PER	MJ	4,99E+00	4,41E-01	MND	4,45E-02	9,59E-02	-1,33E+00	-3,32E-01	-1,89E+00							
Secondary materials	kg	9,24E-03	1,46E-04	MND	1,74E-05	3,18E-05	4,09E-05	6,07E-06	-1,02E-04							
Renew. secondary fuels	MJ	2,12E-05	1,51E-06	MND	5,70E-08	3,28E-07	5,94E-07	1,59E-07	-7,31E-07							
Non-ren. secondary fuels	MJ	1,04E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00							
Use of net fresh water	m³	3,53E-03	5,88E-05	MND	2,70E-06	1,28E-05	6,53E-05	3,16E-05	-2,97E-04							

8) PER = Primary energy resources.







END OF LIFE – WASTE

Impact category	Unit	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	С3	C4	D
Hazardous waste	kg	5,28E-03	5,07E-04	MND	5,96E-05	1,10E-04	2,51E-04	0,00E+00	-5,23E-04							
Non-hazardous waste	kg	1,74E-01	8,98E-03	MND	4,19E-04	1,95E-03	1,47E-01	2,00E-01	-1,62E-02							
Radioactive waste	kg	1,78E-05	3,03E-06	MND	3,13E-07	6,59E-07	7,65E-07	0,00E+00	-4,86E-07							

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1-A3	A4	A5	B1	B2	В3	B4	В5	В6	В7	C1	C2	С3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00							
Materials for recycling	kg	1,16E-04	0,00E+00	MND	0,00E+00	0,00E+00	8,00E-01	0,00E+00	0,00E+00							
Materials for energy rec	kg	2,14E-04	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00							
Exported energy	MJ	2,37E-08	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00							

ENVIRONMENTAL IMPACTS – GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1-A3	A4	A5	B1	B2	В3	B4	B5	В6	В7	C1	C2	СЗ	C4	D
GWP-GHG ⁹⁾	kg CO₂e	3,69E-01	2,94E-02	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,22E-03							

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows - CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.







VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online
This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Imane Uald lamkaddam, as an authorized verifier acting for EPD Hub Limited 14.02.2025



