epddanmark

ECO PLATFORM EPD VERIFIED

Owner: Nymølle Stenindustrier A/S
No.: MD-22000-EN
Issued: 11-07-2022
Valid to: 11-07-2027

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804+A2**

Owner of declaration
Nymølle Stenindustrier A/S
Vestre Hedevej 25
[VAT no.]

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
Aggregates for concrete, asphalt and construction

Number of declared datasets/product variations: 4

Production site
Hedehusene, Denmark

Product(s) use
Fill aggregates for infrastructure and construction products, additives for concrete and asphalt products.

Declared/ functional unit
1 ton

Year of data
2020

EPD version
[revision no.], [publication date]: [Explanation of performed changes]

Issued: 11-07-2022
Valid to: 11-07-2027

Basis of calculation
This EPD is developed in accordance with the European standard EN 15804+A2.

Comparability
EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity
This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use
The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type
☒Cradle-to-gate with modules C1-C4 and D
☐Cradle-to-gate with options, modules C1-C4 and D
☐Cradle-to-grave and module D
☐Cradle-to-gate
☐Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

☐ internal ☒ external

Third party verifier:

Guangli Du, Aalborg University

[Martha Katrine Sørensen
EPD Danmark

Life cycle stages and modules (MND = module not declared)

Product			Construction process		Use							End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

Product information

Product description

The main product components.

Material	Product group
Subbase gravel, quality 1 (Produced according to DS/EN 13285)	1
63-125 mm stones	1
Sandfill / Subbase gravel	1
16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620)	2
8-16 mm / 8-16mm for concrete (On occasion produced according to DS/EN 12620)	2
4-11 mm gravel	2
Screened gravel	2
Base course gravel, quality 1 (Produced according to DS/EN 13285)	3
Base course gravel, quality 2 (Produced according to DS/EN 13285)	3
0-16 mm gravel	3
0-16 Gab-gravel (Produced according to DS/EN 13043)	3
8-32 mm gravel	3
22-180 mm stones	3
>180 mm stones	3
Screened sand	3
Unsorted base gravel	4
Unsorted, quality 2	4
Topsoil	4

Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of the rock, gravel and sand products on the production site located in Hedehusene. Product specific data are based on average values collected in the period 2020.

Background generic data are based on Ecoinvent 3.7.1 and are less than 10 years old.

Representativity

Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old. The technical representativeness is high where data represents processes from products with similar technology and only smaller deviations. Geographical representativeness is also good where data generally represents average data from an area where the area under study is included.

Content of hazardous substances

The products from Nymølle Stenindustrier A/S do not contain substances from the REACH "Candidate List of Substances of Very High Concern for authorization", whose content exceeds 0.1% by weight.

(http://echa.europa.eu/candidate-list-table)

Basic properties

The products consist of glacial meltwater deposits from the last ice age. The materials are a mixture of igneous rocks, flint and limestone.

Performance declarations are available and can be obtained from the laboratory on Zealand (hpj@nymoelle.dk) or the laboratory covering Jutland/Fyn (lise.blessing@nymoelle.dk).

Further Bureau Veritas Certificates can be found at: https://nymoelle.dk/certifikater

www.nymoelle.dk

Reference Service Life (RSL)

Not applicable.

Picture of product(s)

The pictures below are examples representing the products 4-11 mm gravel (top left), 63-125 mm stones (top right), >180 mm stones (bottom left) and Unsorted base gravel (bottom right).




LCA background

Declared unit

The LCI and LCIA results in this EPD relates to 1 ton produced aggregates for concrete, asphalt and construction.
The products from the production processes have been grouped into 4 major product groups, from the similarity in the production process until final soldering of the final product.

In the table below, the average density of the final products can be seen.

Produced aggregates with densities.

Name	Value	Unit
Declared unit	1	ton
Conversion factor to 1 kg.	0,001	-
Final products	**Product group**	**Density (kg/m³)**
Subbase gravel, quality 1 (Produced according to DS/EN 13285)	1	1 700
63-125 mm stones	1	1 700
Sandfill / Subbase gravel	1	1 700
16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620)	2	1 500
8-16 mm / 8-16mm for concrete (On occasion produced according to DS/EN 12620)	2	1 700
4-11 mm gravel	2	1 500
Screened gravel	2	1 400
Base course gravel, quality 1 (Produced according to DS/EN 13285)	3	1 400
Base course gravel, quality 2 (Produced according to DS/EN 13285)	3	1 400
0-16 mm gravel	3	1 400
0-16 mm Gab-gravel (Produced according to DS/EN 13043)	3	1 500
8-32 mm gravel	3	1 600
22-180 mm stones	3	1 500
>180 mm sones	3	1 500
Screened sand	3	1 500
Unsorted base gravel	4	1 400
Unsorted, quality 2	4	1 700
Topsoil	4	1 500

The product consists of glacial meltwater deposits from the last ice age. The materials consist of sand gravel and stone and are a mixture of magmatic, flint and limestone material.

The average material composition of 1 declared unit of the final product is presented in the table below.

Material	Amount (%)
Flint	60%
Limestone	15-20%
Metamorphic rock	20%

PCR

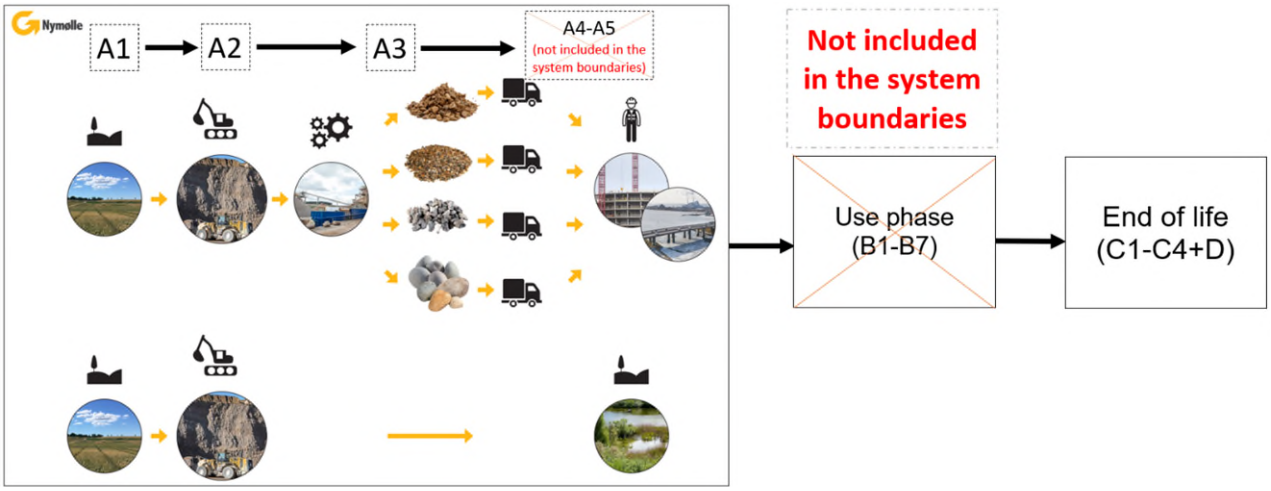
This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019 and PCR 2019:14 Construction products published by EPD-International.

Flowdiagram

The processes proceeded are the same for the four product groups, from the similarity in the production processes until final screening of the end-product. That is, the material is dug out with a dump truck and transported to a facility consisting of conveyors and sieves of various sizes. Through sieves of different sizes, the material is sorted into different product groups. Within each product group the materials are sorted into different types, which bear the same characteristics. The products are picked up in the gravel pit and transported to the final destination.

The process involves the removal of natural resources. These are not restored. After excavation (and ongoing), the areas are established so that the topsoil is laid back so that it lies at the top, and water gets to the excavated areas. Through the original soil and with added seeds, nature is reestablished with recreational opportunities.

The course is illustrated in the figure on the next page.



System boundary

This EPD is based on a cradle-to-gate LCA with modules C1-C4 and D, in which 100 weight-% has been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804:2012+A2:2019, 6.3.6, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, products and energy, transport to and within the production site, packaging and waste processing up to the ”end-of-waste” state or final disposal.

The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

Construction process stage (A4-A5) includes:

Not included in this EPD.

Use stage (B1-B7) includes:

Not included in this EPD.

End of Life (C1-C4) includes:

In the End-of-Life phase, the C1 module includes deconstruction and demolition of the products which for products used as aggregates or similar applications is not applicable. For products used in concrete or asphalt this entails demolition of concrete and asphalt from the construction.

The C2 module includes transport of deconstructed materials to waste management which is only applicable for products used in concrete or asphalt.

The C3 module is not applicable for this EPD since all products are either re-used, recycled, or disposed.

The C4 module includes final disposal of waste residues (5%) that are not expected to be re-used or recycled.

Re-use, recovery, and recycling potential (D) includes:

In the D-module benefits and loads beyond the life cycle are included. Recycling processes as well as avoided products are reported in this module.

LCA results

Environmental impacts from the life cycle of Subbase gravel, quality 1 (Produced according to DS/EN 13285), 63-125 mm stones and Sandfill / Subbase gravel (product group 1).

ENVIRONMENTAL IMPACTS PER [ton]																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	1,36E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,72E+00
GWP-fossil	kg CO_2 eq.	1,36E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,50E+00
GWP-biogenic	kg CO_2 eq.	1,52E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,19E-01
GWP-luluc	kg CO_2 eq.	6,94E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,32E-03
ODP	kg CFC 11 eq.	2,88E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,17E-07
AP	mol H^+ eq.	1,45E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,97E-02
EP-freshwater	kg P eq.	1,84E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,29E-04
EP-marine	kg N eq.	6,50E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,88E-03
EP-terrestrial	mol N eq.	7,13E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,94E-02
POCP	kg NMVOC eq.	1,94E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,14E-02
ADPm[1]	kg Sb eq.	3,65E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,09E-05
ADPf[1]	MJ	1,78E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,23E+01
WDP[1]	m^3	8,34E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,08E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use ND=Not declared															
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.															

Environmental impacts from the life cycle of Subbase gravel, quality 1 (Produced according to DS/EN 13285), 63-125 mm stones and Sandfill / Subbase gravel (product group 1).

ADDITIONAL ENVIRONMENTAL IMPACTS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	3,90E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,03E-07
IRP[2]	[kBq U235 eq.]	8,15E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,81E-01
ETP-fw[1]	[CTUe]	4,14E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,29E-04
HTP-c[1]	[CTUh]	1,67E-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,64E-09
HTP-nc[1]	[CTUh]	6,95E-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,68E-08
SQP[1]	-	2,37E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,93E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality															

	ND=Not declared
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator. [2] 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.

Environmental impacts from the life cycle of 16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620), 8-16 mm 8-16mm for concrete (On occasion produced according to DS/EN 12620), 4-11 mm gravel and Screened gravel (product group 2).

ENVIRONMENTAL IMPACTS PER [ton]																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	2,50E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,13E-01	1,38E+00	0,00E+00	2,72E-01	-2,14E-01
GWP-fossil	kg CO_2 eq.	2,49E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,13E-01	1,38E+00	0,00E+00	2,70E-01	4,66E-01
GWP-biogenic	kg CO_2 eq.	8,60E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,25E-04	3,30E-03	0,00E+00	1,78E-03	-6,74E-01
GWP-luluc	kg CO_2 eq.	1,34E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,18E-05	4,64E-04	0,00E+00	1,17E-04	-5,66E-03
ODP	kg CFC 11 eq.	5,22E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	6,62E-08	3,13E-07	0,00E+00	6,78E-08	8,97E-07
AP	mol H^+ eq.	2,65E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,36E-03	5,52E-03	0,00E+00	1,95E-03	1,03E-02
EP-freshwater	kg P eq.	4,50E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,45E-06	9,26E-05	0,00E+00	4,86E-05	-1,59E-03
EP-marine	kg N eq.	1,19E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,52E-03	1,69E-03	0,00E+00	6,97E-04	7,81E-03
EP-terrestrial	mol N eq.	1,30E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,66E-02	1,84E-02	0,00E+00	7,59E-03	6,58E-02
POCP	kg NMVOC eq.	3,54E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,50E-03	5,64E-03	0,00E+00	2,16E-03	2,47E-02
ADPm[1]	kg Sb eq.	7,56E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,99E-08	4,96E-06	0,00E+00	9,23E-07	-6,01E-05
ADPf[1]	MJ	3,25E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,08E+00	2,08E+01	0,00E+00	4,97E+00	2,80E+01
WDP[1]	m^3	2,96E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,46E-04	5,93E-02	0,00E+00	1,25E-01	-1,24E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use ND=Not declared															
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.															

Environmental impacts from the life cycle of 16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620), 8-16 mm / 8-16mm for concrete (On occasion produced according to DS/EN 12620), 4-11 mm gravel and Screened gravel (product group 2).

ADDITIONAL ENVIRONMENTAL IMPACTS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	7,13E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	9,09E-08	9,54E-08	0,00E+00	3,37E-08	2,28E-06
IRP[2]	[kBq U235 eq.]	1,50E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,86E-02	1,09E-01	0,00E+00	2,41E-02	-2,30E-01
ETP-fw[1]	[CTUe]	7,62E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,45E-06	9,26E-05	0,00E+00	4,86E-05	-1,59E-03
HTP-c[1]	[CTUh]	5,60E-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,07E-11	5,68E-10	0,00E+00	1,88E-10	-6,24E-09
HTP-nc[1]	[CTUh]	1,31E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,55E-09	1,62E-08	0,00E+00	3,22E-09	-1,89E-08
SQP[1]	-	4,41E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,07E-01	1,44E+01	0,00E+00	8,28E+00	-3,92E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality. ND=Not declared															

Environmental impacts from the life cycle of Base course gravel, quality 1 (Produced according to DS/EN 13285), Base course gravel, quality 2 (Produced according to DS/EN 13285), 0-16 mm gravel, 0-16 Gab-gravel (Produced according to DS/EN 13043), 8-32 mm gravel, 22-180 mm stones, >180 mm sones and Screened sand (product group 3).

ENVIRONMENTAL IMPACTS PER [ton]																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	1,94E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,83E-02	3,63E+00	0,00E+00	2,72E-01	-4,36E+00
GWP-fossil	kg CO_2 eq.	1,94E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,83E-02	3,62E+00	0,00E+00	2,70E-01	-3,68E+00
GWP-biogenic	kg CO_2 eq.	8,21E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,63E-05	8,66E-03	0,00E+00	1,78E-03	-6,77E-01
GWP-luluc	kg CO_2 eq.	1,04E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,96E-06	1,22E-03	0,00E+00	1,17E-04	-6,78E-03
ODP	kg CFC 11 eq.	4,05E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,65E-08	8,22E-07	0,00E+00	6,78E-08	-2,30E-07
AP	mol H^+ eq.	2,06E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,41E-04	1,45E-02	0,00E+00	1,95E-03	-2,25E-02
EP-freshwater	kg P eq.	3,89E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,61E-07	2,43E-04	0,00E+00	4,86E-05	-1,88E-03
EP-marine	kg N eq.	9,22E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,79E-04	4,44E-03	0,00E+00	6,97E-04	-5,20E-03
EP-terrestrial	mol N eq.	1,01E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,16E-03	4,84E-02	0,00E+00	7,59E-03	-7,60E-02
POCP	kg NMVOC eq.	2,74E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,13E-03	1,48E-02	0,00E+00	2,16E-03	-1,52E-02
ADPm[1]	kg Sb eq.	6,67E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,25E-08	1,30E-05	0,00E+00	9,23E-07	-6,98E-05
ADPf[1]	MJ	2,53E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,02E+00	5,47E+01	0,00E+00	4,97E+00	-4,85E+01
WDP[1]	m^3	2,88E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,11E-04	1,56E-01	0,00E+00	1,25E-01	-1,24E+01
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water us. ND=Not declared															
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.															

Environmental impacts from the life cycle of Base course gravel, quality 1 (Produced according to DS/EN 13285), Base course gravel, quality 2 (Produced according to DS/EN 13285), 0-16 mm gravel, 0-16 Gab-gravel (Produced according to DS/EN 13043), 8-32 mm gravel, 22-180 mm stones, >180 mm sones and Screened sand (product group 3).

ADDITIONAL ENVIRONMENTAL IMPACTS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	5,52E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,27E-08	2,51E-07	0,00E+00	3,37E-08	1,60E-07
IRP[2]	[kBq U235 eq.]	1,17E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,64E-03	2,86E-01	0,00E+00	2,41E-02	-6,71E-01
ETP-fw[1]	[CTUe]	5,96E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	8,61E-07	2,43E-04	0,00E+00	4,86E-05	-1,88E-03
HTP-c[1]	[CTUh]	5,05E-10	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,67E-12	1,49E-09	0,00E+00	1,88E-10	-8,45E-09
HTP-nc[1]	[CTUh]	1,03E-08	ND	ND	ND	ND	ND	ND	ND	ND	ND	3,88E-10	4,26E-08	0,00E+00	3,22E-09	-6,11E-08
SQP[1]	-	3,51E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,27E-01	3,77E+01	0,00E+00	8,28E+00	-1,28E+02

Environmental impacts from the life cycle of Unsorted base gravel, Unsorted - quality 2 and Topsoil (product group 4).

ENVIRONMENTAL IMPACTS PER [ton]																
Indicator	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	kg CO_2 eq.	9,52E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,72E+00
GWP-fossil	kg CO_2 eq.	9,52E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,50E+00
GWP-biogenic	kg CO_2 eq.	6,94E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,19E-01
GWP-luluc	kg CO_2 eq.	4,73E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,32E-03
ODP	kg CFC 11 eq.	2,02E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,17E-07
AP	mol H^+ eq.	1,02E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,97E-02
EP-freshwater	kg P eq.	1,16E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,29E-04
EP-marine	kg N eq.	4,58E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,88E-03
EP-terrestrial	mol N eq.	5,03E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,94E-02
POCP	kg NMVOC eq.	1,37E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,14E-02
ADPm[1]	kg Sb eq.	2,17E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,09E-05
ADPf[1]	MJ	1,25E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,23E+01
WDP[1]	m^3	4,91E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,08E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water use ND=Not declared															
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.															

Environmental impacts from the life cycle of Unsorted base gravel, Unsorted - quality 2 and Topsoil (product group 4).

ADDITIONAL ENVIRONMENTAL IMPACTS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	2,75E-07	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,03E-07
IRP[2]	[kBq U235 eq.]	5,68E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,81E-01
ETP-fw[1]	[CTUe]	2,87E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-7,29E-04
HTP-c[1]	[CTUh]	9,60E-11	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-3,64E-09
HTP-nc[1]	[CTUh]	4,75E-09	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-4,68E-08
SQP[1]	-	1,56E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-6,93E+01
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality ND=Not declared															

Resource use throughout the life cycle of Subbase gravel, quality 1 (Produced according to DS/EN 13285), 63-125 mm stones and Sandfill / Subbase gravel (product group 1).

RESOURCE USE PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5,70E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,86E+00
PERM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,70E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,86E+00
PENRE	[MJ]	1,89E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,17E+02
PENRM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,89E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,17E+02
SM	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m³]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of nonrenewable primary energy excluding nonrenewable primary energy resources used as raw materials; PENRM = Use of nonrenewable primary energy resources used as raw materials; PENRT = Total use of nonrenewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of nonrenewable secondary fuels; FW = Net use of fresh water ND=Not declared															

Resource use throughout the life cycle of 16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620), 8-16 mm 8-16mm for concrete (On occasion produced according to DS/EN 12620), 4-11 mm gravel and Screened gravel (product group 2).

RESOURCE USE PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1,33E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,09E-02	2,81E-01	0,00E+00	8,33E-02	-7,43E+00
PERM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	1,33E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,09E-02	2,81E-01	0,00E+00	8,33E-02	-7,43E+00
PENRE	[MJ]	3,45E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,33E+00	2,21E+01	0,00E+00	5,28E+00	-2,29E+01
PENRM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	3,45E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	4,33E+00	2,21E+01	0,00E+00	5,28E+00	-2,29E+01
SM	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of nonrenewable primary energy excluding nonrenewable primary energy resources used as raw materials; PENRM = Use of nonrenewable primary energy resources used as raw materials; PENRT = Total use of nonrenewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of nonrenewable secondary fuels; FW = Net use of fresh water ND=Not declared															

Resource use throughout the life cycle of Base course gravel, quality 1 (Produced according to DS/EN 13285), Base course gravel, quality 2 (Produced according to DS/EN 13285), 0-16 mm gravel, 0-16 Gab-gravel (Produced according to DS/EN 13043), 8-32 mm gravel, 22-180 mm stones, >180 mm sones and Screened sand (product group 3).

RESOURCE USE PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	1,13E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,73E-03	7,37E-01	0,00E+00	8,33E-02	-9,60E+00
PERM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	1,13E-01	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,73E-03	7,37E-01	0,00E+00	8,33E-02	-9,60E+00
PENRE	[MJ]	2,69E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,08E+00	5,81E+01	0,00E+00	5,28E+00	-1,03E+02
PENRM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,69E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,08E+00	5,81E+01	0,00E+00	5,28E+00	-1,03E+02
SM	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of nonrenewable primary energy excluding nonrenewable primary energy resources used as raw materials; PENRM = Use of nonrenewable primary energy resources used as raw materials; PENRT = Total use of nonrenewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of nonrenewable secondary fuels; FW = Net use of fresh water. ND=Not declared															

Resource use throughout the life cycle of Unsorted base gravel, Unsorted - quality 2 and Topsoil (product group 4).

RESOURCE USE PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	3,62E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,86E+00
PERM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	3,62E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,86E+00
PENRE	[MJ]	1,32E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,17E+02
PENRM	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,32E+01	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,17E+02
SM	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of nonrenewable primary energy excluding nonrenewable primary energy resources used as raw materials; PENRM = Use of nonrenewable primary energy resources used as raw materials; PENRT = Total use of nonrenewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of nonrenewable secondary fuels; FW = Net use of fresh water ND=Not declared															

Waste and output flows from the life cycle of Subbase gravel, quality 1 (Produced according to DS/EN 13285), 63-125 mm stones and Sandfill / Subbase gravel (product group 1).

WASTE CATEGORIES AND OUTPUT FLOWS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,75E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,10E-04
NHWD	[kg]	2,13E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,81E+00
RWD	[kg]	1,28E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,65E-04
CRU	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,00E+02
MFR	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy ND=Not declared															

Waste and output flows from the life cycle of 16-32 mm / 16-32mm for concrete (On occasion produced according to DS/EN 12620), 8-16 mm / 8-16mm for concrete (On occasion produced according to DS/EN 12620), 4-11 mm gravel and Screened gravel (product group 2).

WASTE CATEGORIES AND OUTPUT FLOWS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	8,68E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,09E-05	5,43E-05	0,00E+00	9,86E-06	-2,17E-05
NHWD	[kg]	3,40E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,00E-03	9,99E-01	0,00E+00	1,09E+01	1,95E+02
RWD	[kg]	2,32E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,94E-05	1,43E-04	0,00E+00	3,09E-05	4,52E-05
CRU	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,25E+02
MFR	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,75E+02
MER	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy ND=Not declared															

Waste and output flows from the life cycle of Base course gravel, quality 1 (Produced according to DS/EN 13285), Base course gravel, quality 2 (Produced according to DS/EN 13285), 0-16 mm gravel, 0-16 Gab-gravel (Produced according to DS/EN 13043), 8-32 mm gravel, 22-180 mm stones, >180 mm sones and Screened sand (product group 3).

WASTE CATEGORIES AND OUTPUT FLOWS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	6,75E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,73E-06	1,43E-04	0,00E+00	9,86E-06	-1,75E-04
NHWD	[kg]	3,04E-02	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,00E-04	2,62E+00	0,00E+00	1,09E+01	-1,76E+00
RWD	[kg]	1,80E-04	ND	ND	ND	ND	ND	ND	ND	ND	ND	7,35E-06	3,75E-04	0,00E+00	3,09E-05	-4,75E-04
CRU	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,60E+02
MFR	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,20E+02
MER	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy ND=Not declared															

Waste and output flows from the life cycle of Unsorted base gravel, Unsorted - quality 2 and Topsoil (product group 4).

WASTE CATEGORIES AND OUTPUT FLOWS PER [ton]																
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	3,32E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,10E-04
NHWD	[kg]	7,61E-03	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,81E+00
RWD	[kg]	8,95E-05	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-5,65E-04
CRU	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,00E+02
MFR	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MER	[kg]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EE	[MJ]	0,00E+00	ND	ND	ND	ND	ND	ND	ND	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EE = Exported energy ND=Not declared															

Biogenic carbon content at factory gate

BIOGENIC CARBON CONTENT PER [ton]		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0
Biogenic carbon content in accompanying packaging	kg C	0

Additional information

Technical information on scenarios

End of life (C1-C4)

Scenario information	Product group 1	Product group 2	Product group 3	Product group 4	Unit
Collected separately	-	-	-	-	kg
Collected with mixed waste	-	-	-	-	kg
For reuse	900	425	660	900	kg
For recycling	-	475	220	-	kg
For energy recovery	-	-	-	-	kg
For final disposal	100	100	100	100	kg
Assumptions for scenario development	-	-	-	-	As appropriate

Re-use, recovery and recycling potential (D)

Products	Scenario information
Product group 1	90% is re-used as materials directly in the next life cycle.
Product group 2	42,5% is re-used directly in the next life cycle, 47,5% is recycled from being used as additives in concrete/asphalt.
Product group 3	66% is re-used directly in the next life cycle, 22% is recycled from being used as additives in concrete/asphalt.
Product group 4	90% is re-used as materials directly in the next life cycle.

Nymølle Stenindustrier continuously takes new initiatives that aim to protect nature and the environment in and around the company's gravel pits and reduce inconveniences to the neighbors.

As an example, at new sorting plant, replacing an old one, has caused a new and environmentally friendlier plant to crush and sort stones. The plant reduces water waste, and has a more efficient energy consumption, compared to other plants. The ambition is a greener and more environmentally friendly raw material production. The system is also more silent, so the noise impact on neighbors is reduced.

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on measurement of release of regulated dangerous substances from construction products using harmonised test methods according to the provisions of the respective technical committees for European product standards are not available.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on measurement of release of regulated dangerous substances from construction products using harmonised test methods according to the provisions of the respective technical committees for European product standards are not available.

References

Publisher	www.epddanmark.dk
Programme operator	Danish Technological Institute Buildings & Environment Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA-practitioner	*Isak Eklöv & Andreas Asker, Sweco AB*
LCA software /background data	*Simapro 9.2 / Ecoinvent 3.7.1*
3rd party verifier	*Guangli Du, Aalborg University*

General programme instructions
Version 2.0
www.epddanmark.dk

EN 15804
DS/EN 15804 + A2:2019 - "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products"

[Productspecifik cPCR]
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EN 15942
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ISO 14025
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ISO 14040
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ISO 14044
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