

Sand	331	33%
Lime stone	370	37%
Filler	9	1%
Additives	1	0%
Water	55	6%
Prestressed steel	12	1%
Reinforcement bar	0,001	0%

Technical data:

- Length – up to 19 m
- Width – up to 1,2 m
- Thickness – up to 0,5 m
- Density concrete 2400 kg/m³
- Weight up to 15 T
- Fire resistance up to R120

The concrete is produced in accordance with EN 206 and complimentary national requirements: SS 137003, NS-EN 206 + NA, SFS 7022, DS/EN 206 DK NA. The elements are manufactured in accordance with EN 1168 and EN 13369.

Market:

Nordic countries and Baltic states

Reference service life, product:

For construction elements the product reference service life is equal to the service life time of the building. Therefore the RSL of the product is set to the reference study period of 60 years for the building.

Reference service life, building:

The service life time of the building is 60 years

LCA: Calculation rules

Declared unit:

Tonne

Data quality:

Data for the recipes, energy use and waste are based on the production year 2020. Background data is based on EPDs and EcoInvent 3.6. Foreground data is <2 years and background data <10 years. The data quality is considered to be good.

RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; NRSF Use of non renewable secondary fuels; W Use of net fresh water

End of life - Waste

Parameter	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
HW	KG	1,22E+00	3,19E-04	5,93E-02	1,28E+00	2,76E-06	1,19E-03	1,61E-05	MNR	1,24E-04	1,20E-04	2,42E-05	2,31E-06	-1,62E-03
NHW	KG	3,00E+01	1,14E+01	3,66E+00	4,51E+01	8,94E-02	2,78E+01	8,18E-02	MNR	5,37E-02	4,30E+00	1,05E-02	1,05E+01	-1,79E+00
RW	KG	2,64E-03	9,04E-04	6,62E-04	4,21E-03	7,74E-06	5,06E-03	1,73E-04	MNR	3,15E-04	3,38E-04	6,16E-05	1,01E-05	-1,49E-04

HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed

End of life – output flow

Parameter	Unit	A1	A2	A3	A1-A3	A4	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
CR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MR	kg	1,45E-04	0,00E+00	6,16E+01	6,16E+01	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	9,90E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MNR	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy

Reading example: 9,0 E-03 = 9,0*10⁻³ = 0,009

In addition, EP-freshwater shall also declared as PO4 eq.

Indicator	Unit	A1	A2	A3	A1-A3	A4/s1	A4/s2	A5	B1-B7	C1	C2	C3	C4	D
EP-freshwater*	kg PO4 eq.	7,87E-03	6,47E-05	5,06E-04	8,44E-03	5,14E-07	2,71E-04	1,25E-04	MNR	1,20E-05	2,43E-05	2,35E-06	6,20E-07	-5,97E-04
GWP-IOBC	kg CO2 eq.	1,31E-01	2,56E-03	2,47E-02	1,58E-01	1,96E-05	2,47E-02	2,72E-03	MNR	2,60E-04	9,29E-04	5,08E-05	1,54E-05	4,91E-03
GWP-BC	kg CO2 eq.	1,32E+00	6,05E-03	6,02E-01	1,93E+00	5,05E-05	8,56E-03	3,55E-02	MNR	9,17E-04	2,31E-03	1,79E-04	1,10E-04	1,12E-01
GWP	kg CO2 eq.	1,39E+02	8,45E+00	1,59E+01	1,64E+02	7,33E-02	5,26E+01	1,17E+00	MNR	3,30E+00	3,18E+00	6,45E-01	5,53E-02	-1,67E+01

EP-freshwater* Eutrophication potential, fraction of nutrients reaching freshwater end compartment. Declared as PO4 eq. **GWP-IOBC** Global warming potential calculated according to the principle of instantaneous oxidation. **GWP-BC** Global warming potential from net uptake and emissions of biogenic carbon from the materials in each module. **GWP** Global warming potential

Hazardous substances

The declaration is based upon reference to threshold values and/or test results and/or material safety data sheets provided to EPD verifiers. Documentation available upon request to EPD owner.

The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforskriften, Annex III), see table.

Indoor environment

The product meets the requirements for low emissions.





Not relevant

Carbon footprint

Carbon footprint has not been worked out for the product.

Bibliography

ISO 14025:2010	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14044:2006	Environmental management - Life cycle assessment - Requirements and guidelines
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products
ISO 21930:2007	Sustainability in building construction - Environmental declaration of building products
NCPR 020	NPCR 020 version 2.0 (20.09.2021), PCR - Part B for Concrete and concrete elements
NR U 5176	Klimatpåverkan för byggnader med olika energiprestanda, IVL Svenska Miljöinstitutet (Erlandsson and Pettersson, 2015)

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