

GHG reporting case study: SCHWENK Latvia

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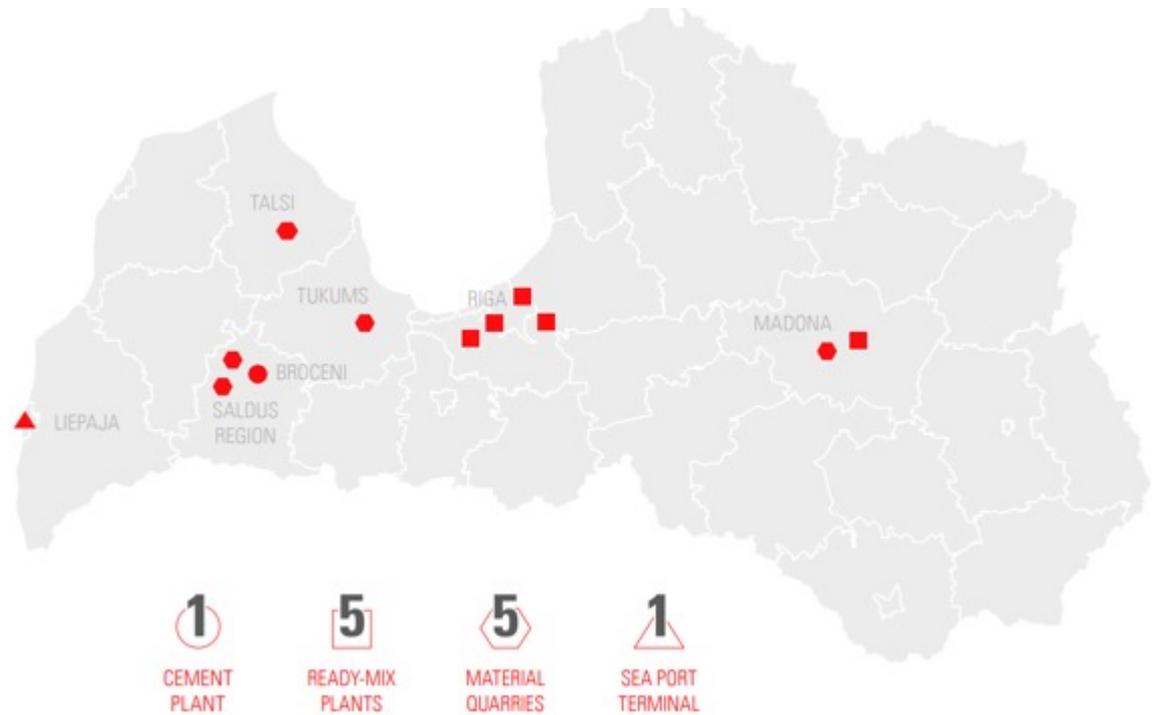
About

SCHWENK Latvia:

- Leading manufacturer of building materials in Latvia
- Offers solutions for the production of high quality cement, mineral materials, ready mix concrete and concrete pavement.
- More than 350 people are employed in SCHWENK Latvija (Latvia), and more than 500 subcontractors are constantly working.
- Owner of the only cement plant in Latvia. Its production capacity is up to 1.6 million tons of cement per year.
- About 70% of the cement produced in Broceni is exported to Lithuania, Estonia, Sweden and Finland.
- The plant in Broceny is one of the most modern cement plants in Europe, where a fully closed production cycle is organized, continuous monitoring is carried out and the latest technologies and solutions are used.

About

In Latvia Schwenk produces cement in Broceni cement plant, readymix in five plants in Latvia and aggregates in four quarries. Our assets include also sea-port terminal in Liepaja and two raw-material quarries – the biggest limestone quarry in Latvia Kumas and clay quarry Caunes.



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About

Management system certificates in SCHWENK Latvia:

- ISO 9001:2005 Quality management systems
- ISO 14001:2015 Environmental management systems
- ISO 45001:2018 Occupational health and safety management system
- ISO 5001:2012 Energy management system

Reporting 1: Annual reporting to Environmental protection agency

Aim: Control of compliance with emission limits set in Environmental Permit



SIA "SCHWENK Latvija"
Brocēnu cementa rūpnīca ar sausā procesa tehnoloģiju



Pārskats par A kategorijas atļaujas Nr. LI-14 IA-0005
nosacījumu izpildi 2019. gadā.

Sagatavoja:
SIA "SCHWENK Latvija"
Vides nodaļas vadītāja
Tel: 67033540
Mob: 29448969

/ Santa Kļava/

<content/uploads/2020/03/A-kategorijas-piesarnojozas-darbibas-atlajas-nosacijumu-izpilde-2019-1.pdf>



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Reporting 1: Filling out forms

The screenshot displays a web application interface for reporting. On the left, a sidebar contains navigation options: 'Autarkācija', 'Autarkācijas pārskats', 'Plāniski', and 'Publiskā atbilde'. The main area shows a form titled '2. Gaisa pārskats' (Air Quality Report) for 'SCHVENK Latvija SIA'. The form includes fields for ID, reporting dates, physical person details, organization name, address, and reporting period (2021). Below the form is a table with 9 rows and 6 columns: ID, Gads (Year), Statuss, Pabeigšanas datums (Completion date), Fiziska persona (Physical person), and Ražotnes nosaukums (Plant name). The table lists various plants and their completion dates from 2021. To the right, another window shows a detailed view of a specific plant, including a table with 9 columns: 'Enģiņa avota kods' (Plant code), 'Kopējā sadzīveslieta' (Total household), 'Ģeogrāfiskās koordinātas' (Geographical coordinates), and 'Laiuma avota parametri' (Permit parameters). This table lists 17 plants with their respective codes, household counts, and coordinates.

<http://parissrv.lvgmc.lv/>

Reporting 2: Nature resource tax

Aim: calculation of Nature Resource tax

Natural Resources Tax Law

Section 16. Calculation of the Tax for Emission of Carbon Dioxide (CO₂)

(1) A limit for the emission of carbon dioxide (CO₂) specified in Annex 4 to this Law is not defined, and the tax for the whole volume of emission of carbon dioxide (CO₂) shall be calculated, applying the rates specified in Annex 4 to this Law. The volume of carbon dioxide (CO₂) emission from stationary technological installations shall be calculated, taking into account the type and chemical composition of the heating fuel, raw materials and ancillary substances, volume of the heating fuel used, raw materials and ancillary substances, quantity of the manufactured production, lowest calorific value and oxidation factor or conversion factor.

(2) The procedures for the calculation of the volume of carbon dioxide (CO₂) emission shall be determined by the Cabinet.

Tax Rates for Air Pollution

No.	Classification of emission	Unit of measurement	Rate in the period of time from 1 January 2020 to 31 December 2020 (EUR)	Rate in the period of time from 1 January 2021 to 31 December 2021 (EUR)	Rate in the period of time from 1 January 2022 to 31 December 2022 (EUR)	Rate from 1 January 2023 (EUR)
1.	Emission of carbon dioxide (CO ₂) from the polluting activity referred to in Chapter I, Clause 1 of Annex 2 to the law On Pollution if the production capacity does not exceed the indicator referred to in Annex 2 to the law On Pollution	ton	9.00	12.00	15.00	15.00
2.	Emission of carbon dioxide (CO ₂) from the polluting activity referred to in Chapter I, Clauses 5, 6, 8, 9, 10, 11, 12, 13, 14, 15, 17, 18, 23, and 24 of Annex 2 to the law On Pollution if the production capacity or the amount of the products produced does not exceed the indicator referred to in Chapter I of Annex 2 to the law On Pollution and the greenhouse gas emission permit has not been issued to it	ton	9.00	12.00	15.00	15.00



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<https://likumi.lv/ta/en/en/id/124707-natural-resources-tax-law>



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Reporting 3: EU ETS reporting

Aim: control of compliance with GHG allowances and (possible) trading of allowances

The screenshot shows the Latvian ETS reporting portal. The search results for 'SCHWENK Latvia SIA' (company code 40003386621) are displayed. The results include:

- Location: Lielirbe iela 17a-28, Rīga, LV1048
- 2021 data: Emission report for 2021, verification report for 2021, decision on 2021 emissions, permit number KL21VL0110, monitoring plan, and emission reduction.
- 2020 data: Emission report for 2020, verification report for 2020, and decision on 2020 emissions.

Additional information on the right side of the results table includes: 'Strukturviens: Kurcenes rajonā vides pārvalde' and 'Atļaujas izdošanas datums: 23.12.2020'.

https://registri.vvd.gov.lv/izsniegtas-atlajas-un-licences/seg-atlajas/?company_name=schwenk&company_code=&collapsed=true&perm_number=&CLS_Territory_ID=&CLS_Territory_ID_autocomplete=&perm_date_from=&perm_date_to=&s=1

Reporting 3: EU ETS reporting

AutoSave OFF MPSCHWENKLatvija_klinkerakrāsns_20102020.xls - Compatibility Mode

File Home Insert Page Layout Formulas Data Review View Automate Help

Undo Paste Copy Format Painter Clipboard Font Alligme

M67

GADA EMISIJU MONITORINGA PLĀNS

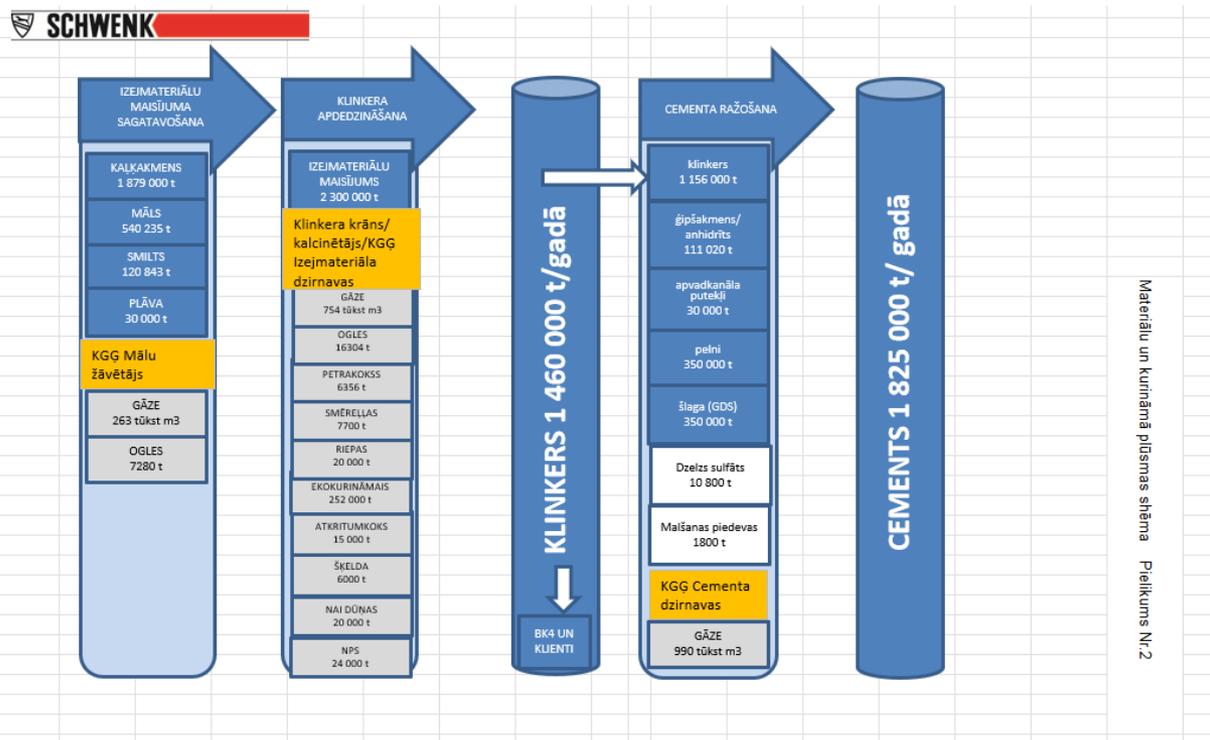
SATURS

Lapu nosaukumi ir iekrāstā, iedaļu nosaukumi — normākrāstā.

- a. Saturs
- b. Norādījumi un nosacījumi
- A. Monitoringa plāna versijas
 - 1. Monitoringa plāna versiju saraksts
- B. Operatora un iekārtu identifikācija
 - 2. Zīnas par operatoru
 - 3. Zīnas par iekārtu
 - 4. Kontaktinformācija.
- C. Iekārtas apraksts
 - 5. Zīnas par iekārtas darbību
 - 6. Zīnas par emisijām
- D. Uz aprēķiniem balstīta metodoloģija
 - 7. Aprēķins: Informācija, kas nepieciešama aprēķiniem nākamajā lapā
- E. Avota plūsmas
 - 8. Informācija par darbības dātem piemērotajiem līmeņiem un aprēķina faktori
- E. Uz mērījumiem balstīta metodoloģija
 - 9. CO2 un N2O emisiju mērīšana
 - 10. Informācija par mērījumu punktiem
 - 11. Uz mērījumiem balstīta metodoloģija — pārvaldība un procedūras
- G. Alternatīvas metodoloģijas
 - 12. Alternatīvo metodoloģiju apraksts
- H. N2O emisijas
 - 13. N2O emisiju monitoringa pārvaldība un procedūras
- I. PFC emisiju noteikšana primārajā alumīnija ražošanā
 - 14. PFC emisiju noteikšana
 - 15. Informācija par PFC emisiju avota plūsmu monitoringu
 - 16. PFC monitoringa pārvaldība un rakstiskās procedūras
- J. Pārvietotā un raksturīgā CO2 noteikšana
 - 17. Raksturīgā un pārvietotā CO2 noteikšana
 - 18. Informācija par CO2 transportēšanai izmantotajām cauruvadu sistēmām
 - 19. Informācija par CO2 ģeoloģiskās uzglabāšanas sistēmām
- K. Pārvaldība un kontrole
 - 20. Pārvaldība
 - 21. Datu plūsmas darbības
 - 22. Kontroles darbības

a.Contents b.Guidelines and conditions A.MPversions B.Operator&InstID C.InstallationDe

Ready Accessibility: Unavailable



https://registri.vvd.gov.lv/izsniegtas-atlajas-un-licences/seg-atlajas/?company_name=schwenk&company_code=&collapsed=true&perm_number=&CLS_Territory_ID=&CLS_Territory_ID_autocomplete=&perm_date_from=&perm_date_to=&s=1

Reporting 3: EU ETS reporting

VERIFICATION REPORT

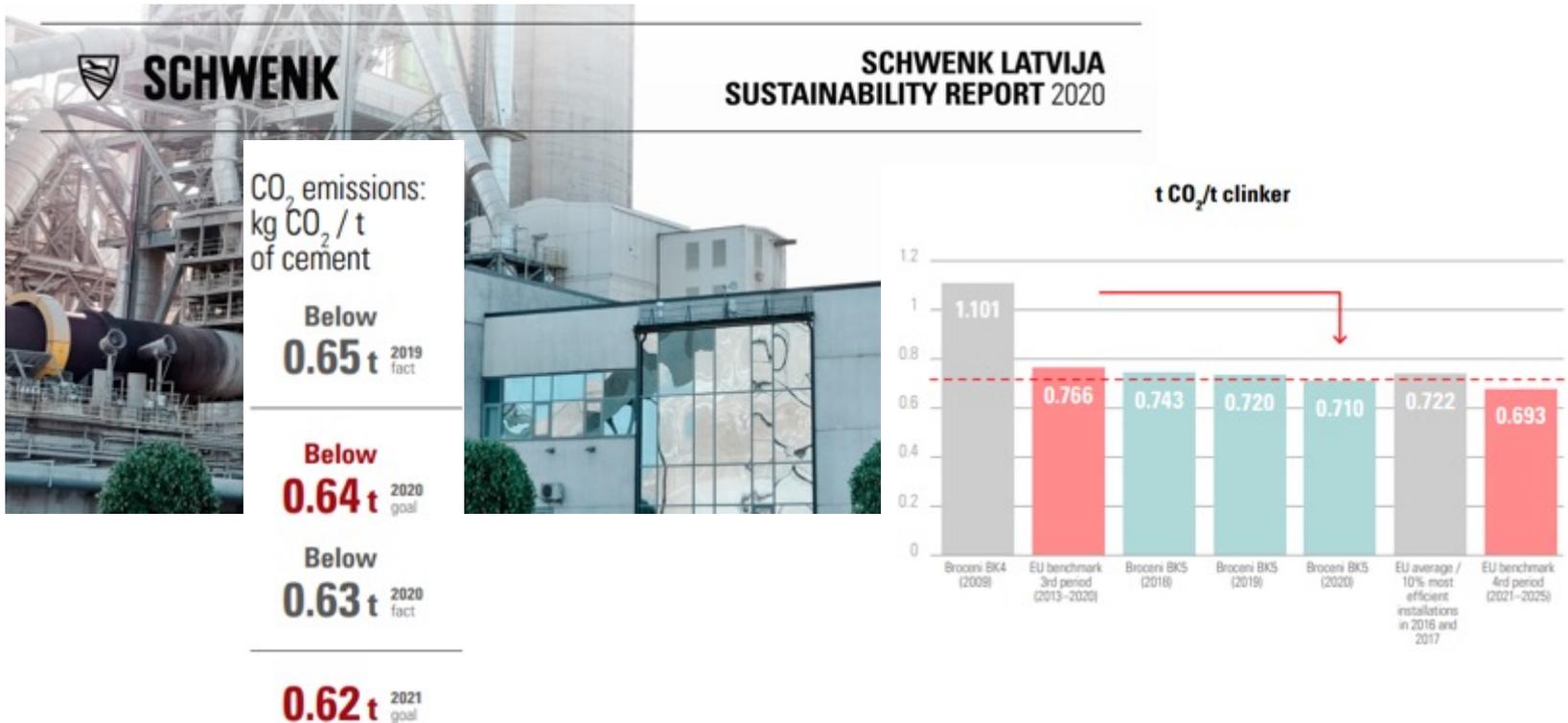
For the verification of operator's emission reports and aircraft operator's emission reports and tonne-kilometre report

Independent Reasonable Assurance Verification Report Opinion Statement - Emissions Trading System		VERIFICATION TEAM	
EU ETS Annual Reporting			
OPERATOR DETAILS		Lead EU ETS Auditor:	
Name of Operator:	SIA "SCHWENK Latvija"	EU ETS Auditor(s):	
Name of Installation:	Klinkera apdedzināšanas krāsns	Technical Expert(s) (EU ETS Auditor):	
Address of Installation:	Rūpnicas iela 10, Brocēni, Saldus novads, LV-3851	Independent Reviewer:	
Unique ID:	LV000000000000114	Technical Expert(s) (Independent Review):	
GHG Permit Number:	KU20SG0008	Signed on behalf of SIA "Bureau Veritas Latvia":	
Date(s) of relevant approved MP and period of validity for each plan:	23.12.2020. MP versija 1 28.10.2021. MP versija 2	Name of authorised signatory:	
Approving Competent Authority:	Valsts vides dienests Kurzemes reģionālā vides pārvalde	Date of Opinion:	
Category:	C	Name of verifier:	
Is the installation a 'low emitter'?	No	Contact Address:	
Annex 1 Activity:	Production of cement clinker	Date of verification contract:	
EMISSIONS DETAILS		Is the verifier accredited or a certified natural person?	
Reporting Year:	2021	Name of National AB or authority certifying the verifier:	
Reference document:	AER-15562_v1.101	Accreditation/ Certification number:	
Date of Emissions Report:	10.02.2022.		
Process Emissions in tCO ₂ e:	562 883		
Combustion Emissions in tCO ₂ e:	188 235		
Total Emissions in tCO ₂ e:	752 118		
Combustion Source Streams:	Dabas gāze, akmeņogles, petrakoks, atstrādātās smērējas un kuģu tīpu naftas produkti, kokuldūri, sadzīves atkritumu atkritumu, diegu tekstils, nosēdus nepas un gumijas izstrādājumi, koknesi ražošanas atlieki, dabīgā kokšne, neitrālizēta piesārņota augsne.		
Process Source Streams:	Klinkers, apvakanāta puteklī		
Methodology used:	uz aprēķinām balstīta metode, leikārtas kopējās emisijas aprēķinātas kā visu emisijas avotu plūsmu summa		
Emissions factors used:	Emisijas koeficienti saskaņā ar Valsts vides dienesta Kurzemes reģionālās vides pārvaldes apstiprināto monitoringa plānu		
Changes to the Operator/ installation during the reporting year:	Pārskata periodā MP veikta izmaiņas attiecībā uz plānoto gāzes apkures katla ar jaudu 0,25MW uzstādīšanu. Iekārtu plānots uzstādīt 2022.gada II pusē.		

https://registri.vvd.gov.lv/izsniegtas-atlajas-un-licences/seg-atlajas/?company_name=schwenk&company_code=&collapsed=true&perm_number=&CLS_Territory_ID=&CLS_Territory_ID_autocomplete=&perm_date_from=&perm_date_to=&s=1

Reporting 4: ESG reporting

Aim: reporting for various ESG related purposes (monitoring of progress towards company's own sustainability goals, 3rd party requirements, Annual Sustainability report etc.)



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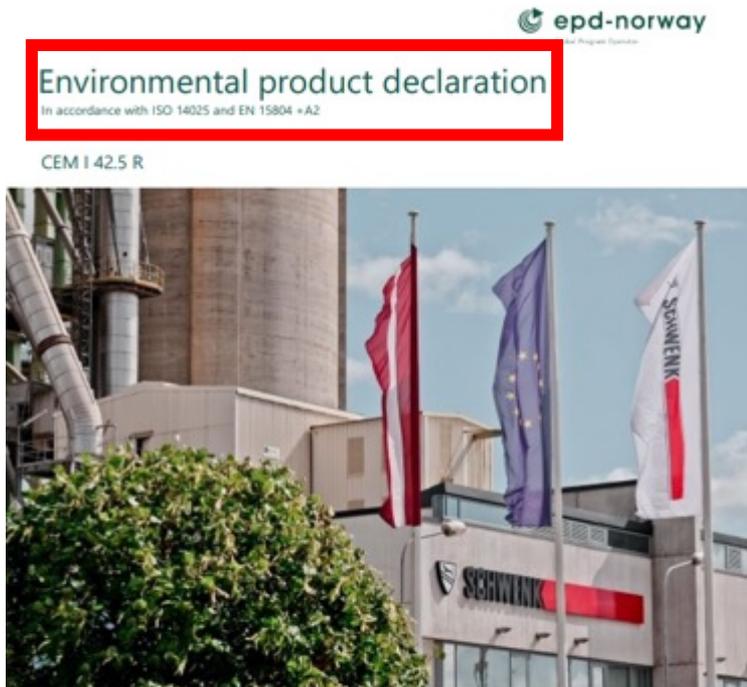
https://schwenk.lv/wp-content/uploads/2021/09/SCHWENK_Latvija_Sustainability_report_2020.pdf



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Reporting 5: Environmental product declaration

Aim: part of product (cement) Life-cycle Assessment



Environmental product declaration

In accordance with ISO 14025 and EN 15804 +A2

CEM I 42.5 R



LCA: Results

The LCA results are presented below for the declared unit defined on page 2 of the EPD document.

Environmental impact				
	Parameter	Unit	A1-A3	A4
	GWP-total	kg CO ₂ -eq	7,07E+02	1,97E+01
	GWP-fossil	kg CO ₂ -eq	7,06E+02	1,97E+01
	GWP-biogenic	kg CO ₂ -eq	6,94E-01	6,08E-03
	GWP-luluc	kg CO ₂ -eq	7,78E-02	6,67E-03
	ODP	kg CFC11 -eq	1,31E-05	4,20E-06
	AP	mol H+ -eq	1,91E+00	3,35E-01
	EP-FreshWater	kg P -eq	3,83E-03	1,03E-04
	EP-Marine	kg N -eq	7,57E-01	7,83E-02
	EP-Terrestrial	mol N eq	8,42E+00	8,78E-01
	POCP	kg NMVOC -eq	2,03E+00	2,36E-01
	ADP-minerals&metals ¹	Kg Sb-eq	9,50E-04	2,12E-04
	ADP-fossil ¹	MJ	1,54E+03	2,81E+02
	WDP ¹	m ³	6,93E+04	1,47E+02

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 change; ODP Ozone Depletion; AP Acidification; EP freshwater Eutrophication aquatic freshwater; EP marine Eutrophication aquatic marine; EP terrestrial Eutrophication terrestrial; POCP Photochemical zone formation; ADPE Abiotic Depletion Potential minerals and metals; ADPF Abiotic Depletion Potential fossil fuels; WDP Water Depletion Potential

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

¹INA Indicator Not Assessed

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator
- Eutrophication aquatic freshwater shall be in kg P-eq., there is a typo in EN 15804:2012+A2:2019 regarding this unit. Eutrophication calculated as PO4-eq is presented on page 11

Owner of the declaration:
SCHWENK Sverige AB
Declared unit:
1 tonne CEM I 42.5 R
This declaration is based on Product Category:
Rules:
CEM Standard EN 15006:2012+A2:2019 covers as core
PCR and EN 18066 is used as PCR Part B
EN 18066:2017 Cement and building lime

Program operator:
The Norwegian EPD-Foundation
Declaration number:
NEPD-3756-2697-EN
Registration number:
NEPD-3756-2697-EN
Issue date: 11.10.2022



https://schwenk.lv/wp-content/uploads/2022/10/NEPD-3756-2697_CEM-I-42.5-R.pdf



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Thank you!



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Funded by the
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