

Environmental Product Declaration



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

Vieser Gratings

from

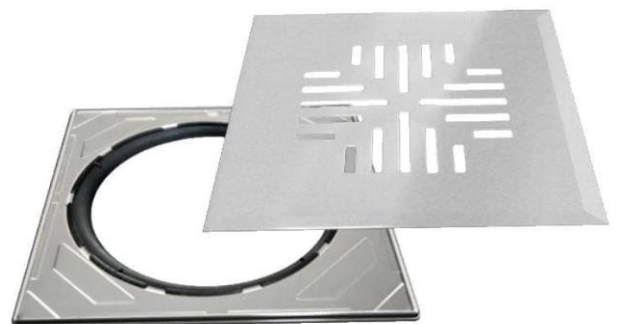
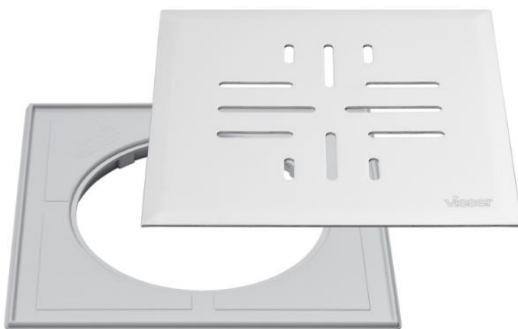
Vieser Oy



EPD of multiple products based on worst case results.

Programme:	The International EPD® System, www.environdec.com
Programme operator:	EPD International AB
EPD registration number:	S-P-11691
Publication date:	2023-12-18
Valid until:	2028-12-11


An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com



General information

Programme information

Programme:	The International EPD® System
Address:	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
Website:	www.environdec.com
E-mail:	info@environdec.com

Accountabilities for PCR, LCA and independent, third-party verification
Product Category Rules (PCR)
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): 2019:14, Construction products, version 1.2.5., Group 429 – Class 4291: Sinks, wash-basins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium
PCR review was conducted by: <i>The Technical Committee of the International EPD® System. A full list of members available on www.environdec.com. The review panel may be contacted via info@environdec.com. Chair of the PCR review: Claudia A. Peña.</i>
Life Cycle Assessment (LCA)
LCA accountability: <i>Ecobio Oy</i>
Third-party verification
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: <input checked="" type="checkbox"/> EPD verification by individual verifier Third-party verifier: Pär Lindman, Miljögraff AB 
Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier: <input type="checkbox"/> Yes <input type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Owner of the EPD: Vieser Oy

Contact: vieser@vieser.fi, tel. +358 20 746 4400

Description of the organisation: Vieser Oy is a Finnish family-owned company that sells floor drain solutions and design covers to professionals in the industry. Vieser focuses on R&D and design and is committed to sustainability. Vieser is part of Paree Group.

Product-related or management system-related certifications: ISO 9001 and ISO 14001 certificates

Name and location of production site(s):

Vieser' subcontractor:
AQ Mecanova Oy
Pajatie 13
85500 Nivala, Finland

Product information

Product name: Vieser Gratings

List of products covered by EPD:

Product ID	Name EN	EAN code	Additional information
51224	Vieser Classic+ grating Pframe 197x197	6418685512246	
51229	Vieser Classic+ grtng Pframe 197x197 Ø32	6418685512291	
51241	Vieser Modern grating Pframe 197x197	6418685512413	
51254	Vieser Classic SST grating 160x160	6418685512543	
51256	Vieser Classic SST grating 160x160 Ø32	6418685512567	
51273	Vieser round SST grating Ø150	6418685512734	NO version. Sold with clamping ring (not included in the LCA study)
51274	Vieser round SST grating Ø150 lockable	6418685512741	NO version. Sold with clamping ring (not included in the LCA study)
51275	Vieser round SST grating Ø150 Ø32	6418685512758	
51280	Vieser adjustable SST frame 197x197	6418685512802	
51291	Vieser Modern grating Sframe 197x197	6418685512918	
51292	Vieser Classic+ grating Sframe 197x197	6418685512925	

(Table continues the next page.)

51293	Vieser Classic+ grtng Sframe 197x197 ø40	6418685512932	
51294	Vieser Classic+ grtng Sframe 197x197 ø32	6430066741328	NO version. Sold with clamping ring (not included in the LCA study)
52670	Vieser round SST grating S	6418685526700	NO version. Sold with clamping ring (not included in the LCA study)
52672	Vieser Modern grating Sframe 197x197 S	6418685526724	NO version. Sold with clamping ring (not included in the LCA study)
52673	Vieser Classic+ grtng Sframe 197x197 S	6418685526731	NO version. Sold with clamping ring (not included in the LCA study)
52674	Vieser Classic+ grtng Sframe 197x197ø40S	6418685526748	NO version. Sold with clamping ring (not included in the LCA study)
6004547	Vieser Flip tiled grating 146x146	6430066742424	NO version. Sold with clamping ring (not included in the LCA study)
6005478	Vieser Link grating Pframe 197x197	6430066742820	
6005479	Vieser Grid grating Pframe 197x197	6430066742851	
6005480	Vieser Classic+ grtng Pframe 197x197 bla	6430066742882	
6005481	Vieser Link grating Pframe 197x197 black	6430066742912	
6005482	Vieser Link grating Sframe 197x197	6430066742943	
6005483	Vieser Grid grating Sframe 197x197	6430066742974	
6006954	Vieser Classic+ SST-grating 197x197 B	6430066743865	
6006959	Vieser adjustable SST frame 197x197 B	6430066743872	
6006967	Vieser Classic+ SST-grtng 197x197 ø32 B	6430066743889	
6007679	Vieser Design SST grating 197x197 B	6430066744244	
6007687	Vieser adjustable SST frame S 197x197 B	6430066744251	
6007707	VieserClassic+grtngPframe197x197ø32black	6430066744268	
6007765	Vieser Classic+grtng Sframe197x197 S bla	6430066744275	NO version. Sold with clamping ring (not included in the LCA study)

Product identification: EN 1253 – Gullies for buildings

Product description: Floor drains, floor drain covers, and extension rings are drainage furniture and intended for drainage.

UN CPC code: Group 429 – Class 4291: Sinks, wash-basins, baths and other sanitary ware and parts thereof, of iron, steel, copper or aluminium

Geographical scope: Raw materials for production come from Europe. Assembly is based on Finnish production conditions. End-of-life activities are modelled based on Europe.

LCA information

EPD of multiple products: In this EPD, the information and LCA results of two (2) similar products are presented. The products are presented in the front page of this EPD and in the LCA report related to this EPD. Since the declared environmental impact indicator results, aggregated over all included modules A-C, differ by more than 10% between any of the included products, for each indicator, the highest results are declared. I.e., the results of a “worst-case product” are presented.

Functional unit / declared unit: 1 kg of product.

Reference service life: The scenarios for modules B1-B5 are not given, thus the RSL is not specified in cradle to gate with options, modules C1–C4, and module D type of EPD.

Time representativeness: Data describing the acquisition of raw materials and manufacturing processes covers production year 2021. Database data used for modelling is from 2022 for ecoinvent data.

Database(s) and LCA software used: Database used for modelling is ecoinvent 3.8 and Industry Data 2.0. LCA software used for modelling is SimaPro version 9.4.0.2.

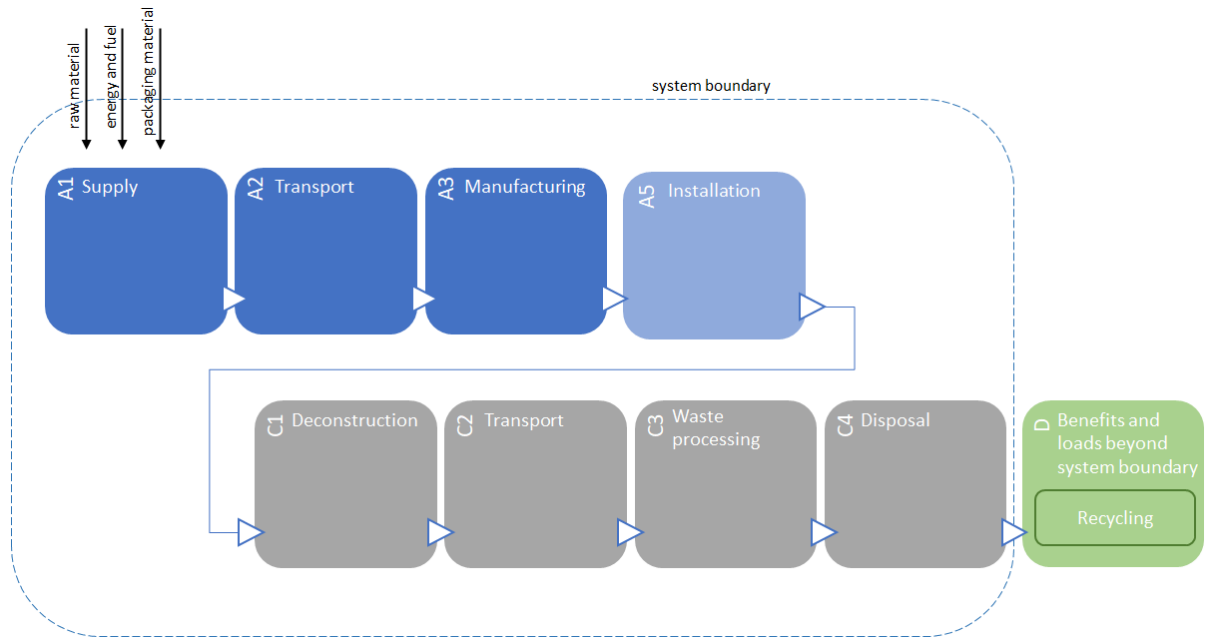
Description of system boundaries:

The system boundary of the life cycle assessment was set to cradle to gate with options, modules C1–C4, and module D, based on the EN 15804 standard.

The gratings are produced at Mekanova Oy’s site in Nivala. Manufacturing process is simple. In the production, the raw material steel is cut and shaped by a machine into final products. Then the products are packaged. The process consumes only electricity.

The transportation in the construction site (A4) is not declared since the default scenario is difficult to define. The transport distances to the customers vary very much since the manufacturing facilities and potential customers are in a wide area in Nordic countries. Use stage (B1–B7) is not declared since is not relevant in contributing the environmental impacts during the life cycle of the product. Once the floor drain product is installed in a building, it stays in its place until the end-of-life stage. Floor drain products do not have operational energy or water usage (water only flows through them), they do not need maintaining, and repair or replacement phases basically lead to the end-of-life-stage.

System diagram:



More information:

LCA practitioner: Ecobio Oy, info@ecobio.fi. Explanatory material can be obtained from the EPD owner and/or LCA practitioner.

Data quality: The quality requirements for the life cycle assessment were set according to the EN ISO 14044 and the EN 15804 standards.

Cut-off rule: Cut-off criteria was no applied for the LCA.

Allocation: Economic allocation was used to allocate environmental impacts between the products and steel scrap which is sold further. Details explained in the LCA report.

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU 27	EU 27	FI										EU 27	EU 27	EU 27	EU 27	EU 27
Specific data used	< 10 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	20 %					-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0 %					-	-	-	-	-	-	-	-	-	-	-	-

Content information

Representing "a worst-case" product:

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Stainless steel	0,6	0 %	0 %
TOTAL	0,6	0 %	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Wood pallet	0,038	6,4 %	0,454
Cardboard	0,041	6,8 %	0,418
Packaging film	0,001	0,1 %	0
TOTAL	0,564	8,6 %	0,872

No dangerous substances used in the product.

Results of the environmental performance indicators

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit								
Indicator	Unit	A1-A3	A5	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	8,36E+00	9,29E-03	0,00E+00	1,07E-02	0,00E+00	1,57E-03	-3,71E+00
GWP-biogenic	kg CO ₂ eq.	5,03E-02	6,78E-02	0,00E+00	1,03E-05	0,00E+00	4,28E-03	5,12E-03
GWP-luluc	kg CO ₂ eq.	8,46E-03	2,13E-06	0,00E+00	5,04E-06	0,00E+00	5,20E-07	-3,77E-03
GWP-total	kg CO ₂ eq.	8,41E+00	7,21E-02	0,00E+00	1,07E-02	0,00E+00	5,86E-03	-3,55E+00
ODP	kg CFC 11 eq.	4,00E-07	5,19E-10	0,00E+00	2,41E-09	0,00E+00	2,90E-10	-1,68E-07
AP	mol H ⁺ eq.	4,63E-02	5,26E-05	0,00E+00	4,26E-05	0,00E+00	4,65E-05	-2,14E-02
EP-freshwater	kg P eq.	2,75E-03	7,45E-07	0,00E+00	8,05E-07	0,00E+00	2,08E-06	-1,30E-03
EP-marine	kg N eq.	8,26E-03	2,69E-05	0,00E+00	1,24E-05	0,00E+00	2,14E-05	-3,69E-03
EP-terrestrial	mol N eq.	8,85E-02	2,35E-04	0,00E+00	1,35E-04	0,00E+00	2,46E-04	-3,95E-02
POCP	kg NMVOC eq.	2,69E-02	5,79E-05	0,00E+00	4,16E-05	0,00E+00	6,61E-05	-1,23E-02
ADP-minerals&metals*	kg Sb eq.	2,02E-04	1,68E-08	0,00E+00	4,88E-08	0,00E+00	5,16E-09	-1,03E-04
ADP-fossil*	MJ	1,09E+02	4,29E-02	0,00E+00	1,60E-01	0,00E+00	2,63E-02	-4,15E+01
WDP*	m ³	2,69E+00	7,01E-03	0,00E+00	5,30E-04	0,00E+00	4,55E-04	-1,24E+00
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption							

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Additional mandatory and voluntary impact category indicators

Results per functional or declared unit								
Indicator	Unit	A1-A3	A5	C1	C2	C3	C4	D
GWP-GHG ¹	kg CO ₂ eq.	8,38E+00	9,29E-03	0,00E+00	1,07E-02	0,00E+00	1,63E-03	-3,71E+00
Particulate matter emissions ²	disease inc.	6,09E-07	4,22E-10	0,00E+00	7,98E-10	0,00E+00	4,45E-10	-2,95E-07
Ionising radiation, human health ²	kBq U235 eq	1,63E+00	1,40E-04	0,00E+00	8,50E-04	0,00E+00	1,03E-04	-2,79E-01
Ecotoxicity (freshwater) ²	CTUe	2,47E+02	3,75E-01	0,00E+00	1,31E-01	0,00E+00	7,15E-02	-1,15E+02
Human toxicity, cancer ²	CTUh	1,65E-07	1,72E-11	0,00E+00	4,77E-12	0,00E+00	4,53E-11	-8,46E-08
Human toxicity, non-cancer ²	CTUh	1,90E-07	7,11E-10	0,00E+00	1,32E-10	0,00E+00	6,79E-11	-9,25E-08
Land use ²	Pt	5,49E+01	1,51E-02	0,00E+00	9,45E-02	0,00E+00	3,08E-02	-2,00E+01

¹ This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO₂ is set to zero.

²The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

Resource use indicators

Results per functional or declared unit								
Indicator	Unit	A1-A3	A5	C1	C2	C3	C4	D
PERE	MJ	2,21E+01	1,71E-03	0,00E+00	2,70E-03	0,00E+00	8,00E-04	-9,68E+00
PERM	MJ	2,36E+00	0	0	0	0	0	0
PERT	MJ	2,39E+01	1,71E-03	0,00E+00	2,70E-03	0,00E+00	8,00E-04	-9,68E+00
PENRE	MJ	1,08E+02	4,30E-02	0,00E+00	1,60E-01	0,00E+00	2,63E-02	-4,15E+01
PENRM	MJ	0	0	0	0	0	0	0
PENRT	MJ	1,08E+02	4,30E-02	0,00E+00	1,60E-01	0,00E+00	2,63E-02	-4,15E+01
SM	kg	0	0	0	0	0	0	0
RSF	MJ	0	0	0	0	0	0	0
NRSF	MJ	0	0	0	0	0	0	0
FW	m ³	7,11E-02	2,35E-04	0,00E+00	2,02E-05	0,00E+00	8,96E-05	-3,37E-02
Acronyms	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 non-renewable primary energy excluding non-renewable primary energy resources used as raw materials; PENRM = Use of non-renewable primary energy resources used as raw materials; PENRT = Total use of non-renewable primary energy re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water							

Waste indicators

Results per functional or declared unit								
Indicator	Unit	A1-A3	A5	C1	C2	C3	C4	D
Hazardous waste disposed	kg	9,70E-03	9,39E-08	0,00E+00	4,29E-07	0,00E+00	5,22E-08	-2,76E-05
Non-hazardous waste disposed	kg	7,56E+00	4,37E-03	0,00E+00	6,78E-03	0,00E+00	6,40E-04	-3,80E+00
Radioactive waste disposed	kg	4,50E-04	1,02E-07	0,00E+00	1,07E-06	0,00E+00	1,07E-07	-1,04E-04

Output flow indicators

Results per functional or declared unit								
Indicator	Unit	A1-A3	A5	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	0	0	0	0
Material for recycling	kg	0	0	0	0	8,50E-01	0	0
Materials for energy recovery	kg	1,07E-02	1,60E-01	0	0	0	1,50E-01	0
Exported energy, electricity	MJ	0	0	0	0	0	0	0
Exported energy, thermal	MJ	0	0	0	0	0	0	0

Additional environmental information

Vieser Oy delivers instructions of proper use, maintenance, and service of the product for the customer to minimize its environmental impacts.

Information related to Sector EPD

Does not apply in this case.

Differences versus previous versions

Does not apply in this case as there are no previous versions.

References

General Programme Instructions of the International EPD® System. Version 4.0.
 PCR 2019:14. Construction products. Version 1.2.5
 Ecobio LCA report - Vieser Oy's floor drain products. 2023.

