

Environmental Product Declaration



CONCRETE RESTORATION AND PROTECTION



BLOCK
BLOCK - BULK
ISI 310
MURATURA
MURATURA - BULK
TIXO
GRIGOFORMA 3_30
UNI RR
UNIX
UNIX - BULK



FORNACI CALCE GRIGOLIN S.P.A.

PRODUCTION SITE
Via Solferino, 88
43014 Ramiola, Medesano PR

According ISO 14025:2010 and EN 15804:2012+ A2:2019/AC:2021

Program Operator	EPDItaly
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GENERAL INFORMATION

EPD OWNER

Company name	Fornaci Calce Grigolin S.p.A.
Legal office	Via Bombardieri 14, Ponte della Priula (TV)
Contacts for information about the EPD	c.fregolent@fornacigrigolin.it
Company website	www.fornacigrigolin.it

PROGRAM OPERATOR

EPDItaly	EPDItaly - Via Gaetano De Castilia n° 10 - 20124 Milano, Italy
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INFORMATION ABOUT THE EPD

Product name	<ul style="list-style-type: none"> • BLOCK • BLOCK - BULK • ISI 310 • MURATURA • MURATURA - BULK • TIXO • GRIGOFORMA 3_30 • UNI RR • UNIX • UNIX - BULK
Production site	Via Solferino, 88, 43014 Ramiola, Medesano (PR)
Scope of the product	Premixed materials
EPD type	Specific product EPD based on a qualified tool
Product range	GALILEO

SUMMARY DESCRIPTION AND TECHNICAL INFORMATION OF THE PRODUCTS

BLOCK	
BLOCK - BULK	High-strength flowable cement mortar (Class R4)
ISI 310	Thixotropic cementitious mortar with high mechanical strength (Class R4)
MURATURA	
MURATURA - BULK	Thixotropic cementitious mortar with high mechanical strength (Class R3)
TIXO	Thixotropic cementitious mortar with high mechanical strength (Class R4)
GRIGOFORMA 3_30	Technical skim coat and moldable thixotropic cementitious mortar for skimming and leveling (Class R2)
UNI RR	Thixotropic, workable cementitious mortar for skimming and leveling (Class R2)
UNIX	
UNIX - BULK	Thixotropic cement-based skim coat for leveling and finishing (Class R2)

PRODUCTS REFERENCE TECHNICAL STANDARDS

BLOCK	EN 1504-3:2006 Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair
BLOCK - BULK	EN 1504-6:2007 Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 6: Anchoring of reinforcing steel bar
ISI 310	
MURATURA	
MURATURA - BULK	EN 1504-3:2006
TIXO	Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair
UNI RR	
UNIX	
UNIX - BULK	
GRIGOFORMA 3_30	EN 1504-3:2006 Products and systems for the protection and repair of concrete structures - Definitions, requirements, quality control and evaluation of conformity - Part 3: Structural and non-structural repair EN 998-1:2016 Specification for mortar for masonry - Part 1: Rendering and plastering mortar EN 13813:2004 Screed material and floor screeds - Screed material - Properties and requirements
CPC Code (number)	37560
Reference PCR	PCR ICMQ-001/15 rev. 3.2 Prodotti e servizi per l'edilizia, EPDItaly. Published on: 03/11/2025.
Declared Unit	1000 kg
Reference year	2023
EPD type	Specific product EPD based on a qualified tool
LCA Tool identification	Fornaci Calce Grigolin S.p.A. - LCA TOOL n.1_Rev.4, developed using SimaPro 10.2.0.2 and Ecoinvent 3.11
Company contact	Tel. 0422.5261 PEC: fornacigrigolin@legalmail.gruppogrigolin.it E-mail: info@fornacigrigolin.it
TECHNICAL SUPPORT:	Greenwich S.r.l. - Tel. +39 035 4948794 Operations office: Via Presolana 2/4, 24030 Medolago (BG) Italy Registered office: Via Vittorio Emanuele II 179, 24033 Calusco d'Adda (BG) Italy tecnicog4@greenwichsrl.it info@greenwichsrl.it

INFORMATION ABOUT THE ASSESSMENT

PCR	PCR ICMQ-001/15 rev. 3.2 Prodotti e servizi per l'edilizia, EPDItaly. Published on: 03/11/2025.
EPDItaly Regulations	Regulation EPDITALY v. 6.0 published on 30/10/2023
Project Report LCA	LCA Report_Analisi del ciclo di vita di premiscelati, cementi e leganti plastici, pitture e tonachini Novembre 2025_rev.05
Verification Statement / Independent Validation	<p>PCR revision was performed by the EPDItaly Technical Committee – info@epditaly.it Independent verification of the declaration and the data was performed according to ISO 14025:2010.</p> <p><input type="checkbox"/> Internal <input checked="" type="checkbox"/> External</p> <p>Third party verification/validation done by: ICMQ S.p.A., via Gaetano De Castilia n° 10 - 20124 Milano, Italy. Accredited by Accredia.</p>
Comparability Statement	<p>Environmental declarations published within the same product category, but from different programs may not be comparable. In particular, EPDItaly declarations on construction products may not be comparable if not compliant to EN 15804:2012+A2:2019.</p>
Responsibility Statement	<p>The EPD Owner releases EPDItaly from any non-compliance with environmental legislation. The declaration holder will be responsible for the supporting information and evidence. EPDItaly declines all responsibility for the information, data and results provided by the EPD Owner for the life cycle assessment.</p>
Reference documents	This declaration was developed in compliance to the EPDItaly Regulations rev. 6.0 published on 30/10/2023 and available at www.epditaly.it.

GENERAL INFORMATION

IDENTITY – FORNACI CALCE GRIGOLIN SPA

The Grigolin Group comprises a range of specialized companies operating across all sectors of the building and construction industry, offering integrated, next-generation solutions for production technologies. The Group places particular emphasis on environmental sustainability, the development of human resources, and product quality, thanks in part to the seamless synergy achieved through the integrated management of raw materials, resources, technologies, and professionals, enabling it to meet the needs of a constantly evolving market.

Since 1963, Fornaci Calce Grigolin has been one of the most important Italian and international companies in the construction materials and technologies sector. It boasts over sixty years of experience, gained on construction sites and in research and development laboratories, and looks to the future with a view to continuous evolution, improving product quality, and implementing support services provided by qualified personnel.

Geographical expansion, technological innovation and the presence of highly qualified personnel have allowed Fornaci Calce Grigolin to become an industry leader and express its value through:






- large systems of synergies;
- diversification and verticalization of production sectors.
- technological development and applied research.
- continuous attention to environmental values.

Today, Fornaci Calce Grigolin is one of the most important Italian and international companies in the construction materials and technologies sector. It boasts a full range of special solutions: lime and derivatives, thermal insulation, underlays and installation of floors and coverings, renovations, green building, decorations, paintings and finishes, deep foundations and consolidations, binders, mortars and plasters.

The company has always paid attention to the environment by minimizing emissions from resource extraction, transportation, and their processing. Furthermore, the lime production process is automated, and emissions controls are carried out with continuous monitoring by the relevant authorities, with EPDItaly certification recognized in 2024.



SCOPE AND TYPE OF EPD

 PRODUCT STAGE			 CONSTRUCTION PROCESS STAGE		 USE STAGE							 END OF LIFE STAGE				 BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport from the gate to the site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery- Recycling- potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
✓	✓	✓	ND	ND	ND	ND	ND	ND	ND	ND	ND	✓	✓	✓	✓	✓

GEOGRAPHIC VALIDITY FOR PRODUCT STAGE A1-A3	Europe & ITALY
GEOGRAPHIC VALIDITY FOR END OF LIFE C1-C4, D	ITALY
GEOGRAPHIC VALIDITY FOR PRODUCTION SITE	ITALY
EPD TYPE	Product specific EPD based on a qualified tool. From cradle to gate with modules C1-C4 and module D (A1-A3+C1-C4+D)
REFERENCE YEAR	2023
DATABASE	Ecoinvent 3.11
SOFTWARE	The EPD was generated with the LCA-Tool: Fornaci Calce Grigolin S.p.A. - LCA TOOL n.1_Rev.4 Such LCA-Tool was developed using SimaPro 10.2.0.2 and Ecoinvent 3.11

DETAILED PRODUCT DESCRIPTION

CONCRETE RESTORATION AND PROTECTION



BLOCK	Fiber-reinforced, flowable cementitious mortar, reoplastic, with high mechanical strength and compensated shrinkage, for embedding metal reinforcements and structural repair of reinforced concrete elements (Class R4).
BLOCK - BULK	
ISI 310	A fine-grained, polymer-modified, thixotropic cementitious mortar, fiber-reinforced for high mechanical strength and with compensated shrinkage, for the structural repair of concrete elements (Class R4).
MURATURA	A fiber-reinforced, thixotropic mortar based on pozzolanic cements, with controlled shrinkage and high mechanical strength, for the structural repair of concrete elements (Class R3) and reinforced structural plasters.
MURATURA - BULK	
TIXO	Polymer-modified, fiber-reinforced, shrinkage-compensated cementitious mortar with high mechanical strength, for the structural repair of concrete elements (Class R4).
GRIGOFORMA 3_30	Fine-grained, polymer-modified, thixotropic cementitious mortar for the non-structural repair of concrete elements (Class R2). Variable-thickness skim coat for the preparation and leveling of substrates.
UNI RR	A fine-grained, polymer-modified, fiber-reinforced thixotropic cementitious mortar with rapid setting and compensated shrinkage, for the non-structural repair of concrete elements (Class R2).
UNIX	A fine-grained, fiber-reinforced, polymer-modified, thixotropic cementitious skim coat with compensated shrinkage, for non-structural repair, leveling, and finishing of concrete elements (Class R2).
UNIX - BULK	

FIELDS OF USE

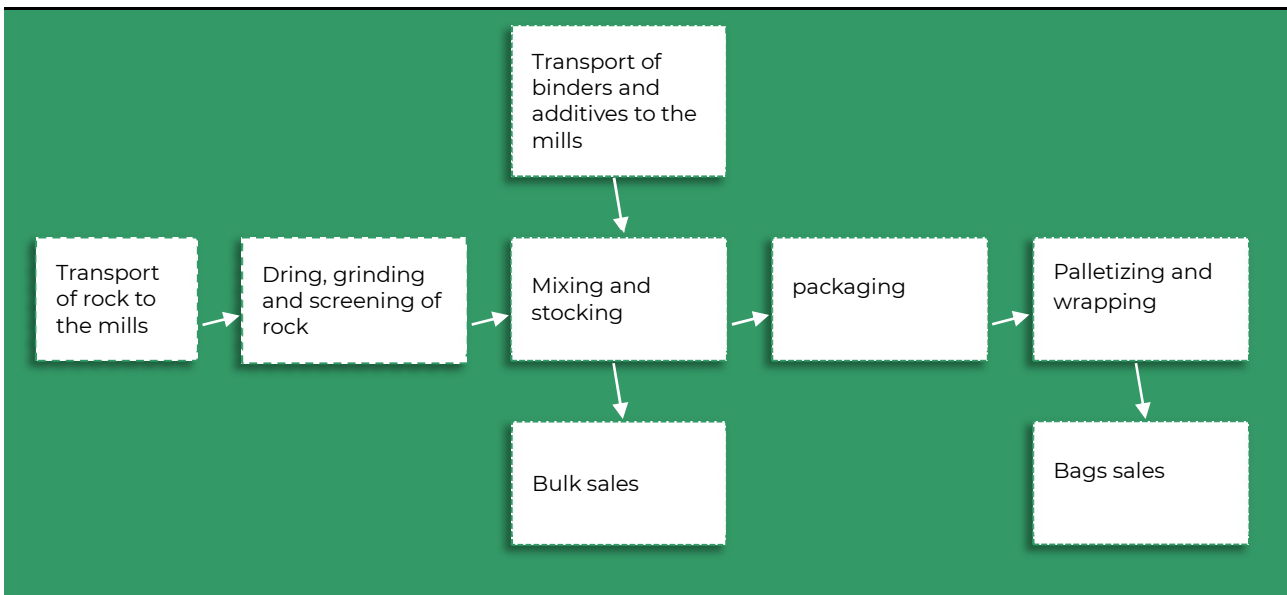
BLOCK	Localized or extensive thickness-restoration and reinforcement of reinforced concrete elements. Reconstruction of sections of beams, columns, parapets, and canopies. Protective lining of concrete hydraulic structures such as canals, sewers, pipelines, basins, and reservoirs. Structural reinforcement by increasing the cross-sectional area of beams, circling columns, and reinforcing floors with composite reinforced slabs. Extrados reinforcement of bridges and viaducts, reinforced concrete walls, and foundation works. Grouting of foundations for machinery, equipment, presses, and turbines subject to dynamic stresses and vibrations. Anchoring of crane or overhead crane rails, and fastening of structural elements made of reinforced concrete or steel.
BLOCK - BULK	
ISI 310	Localized or extensive repairs of reinforced concrete elements with variable thickness. Reconstruction of sections of beams, columns, parapets, canopies, and balconies. Protective coating of concrete hydraulic structures such as canals, sewers, pipes, basins, and reservoirs. Leveling and finishing of concrete elements.
MURATURA	Localized or extensive repairs and thickening of reinforced concrete elements. Reconstruction of sections of beams, columns, parapets, canopies, and balconies. Reconstruction and section enlargement of concrete partitions by applying reinforced mortar with welded wire mesh and connecting nails. High-strength reinforced structural plaster mortar for the consolidation of masonry.
MURATURA - BULK	
TIXO	Localized or full-depth repairs and strengthening of reinforced concrete elements. Reconstruction of sections of beams, columns, parapets, canopies, and balconies. Reconstruction and enlargement of the cross-section of concrete partitions by applying reinforced mortar using a plastering machine, reinforced with welded wire mesh and connecting nails.
GRIGOFORMA 3_30	Localized or extensive non-structural repairs of reinforced concrete elements, with variable thickness. Leveling and finishing of concrete surfaces. A fiber-reinforced, thixotropic, non-shrinking technical leveling compound for preparing interior and exterior substrates, floors, walls, and ceilings, with thicknesses ranging from 3 to 30 mm.
UNI RR	Localized or extensive non-structural repairs of reinforced concrete elements, with variable thickness. Leveling and finishing of concrete. Thixotropic technical leveling compound for preparing interior and exterior substrates, walls, and ceilings, applicable in thicknesses ranging from 3 to 50 mm.
UNIX	Localized or extensive non-structural repairs of reinforced concrete elements, with variable thickness. Leveling and finishing of concrete. Thixotropic technical leveling compound for preparing interior and exterior substrates, walls, and ceilings, applicable in thicknesses ranging from 1 to 20 mm.
UNIX - BULK	

DESCRIPTION OF THE MANUFACTURING PROCESS

The production process for the premixed products under study consists of the following stages:

1. Transport of rock to the mills;
2. Drying, grinding, and screening of rock;
3. Mixing of rock, binders and additives, and storage of the premix;
4. Packaging;
5. Palletizing and wrapping.

The ground limestone, sorted by particle size, is conveyed to the storage silo via elevators located downstream of the grinding and screening process. The semi-finished products, which may be further sorted by particle size, are fed into dedicated silos. The plant is fully automated and operates in a closed-loop system. The production of premixed products involves mixing the raw materials, which are weighed according to the formulation and blended in a mixer. After the mixing process, the finished product can be sent to the bagging line, to bulk storage silos, or loaded directly into a tanker. A portion of the mixed product is stored in silos to meet various bulk requests from customers. Most of the finished product is bagged using a bagging machine and subsequently palletized.



PRODUCT COMPOSITION
(excluding packaging)

Material	Min [kg]	Max [kg]
Aggregates	5,61E+02	7,58E+02
Binders	2,18E+02	4,20E+02
Additives	1,48E+01	2,80E+01

PACKAGING COMPOSITION

Material	Min [kg]	Max [kg]
Wood	0,00E+00	1,77E+01
Cardboard	0,00E+00	3,12E+00
Polyethylene	0,00E+00	1,15E-01
Polypropylene	0,00E+00	1,23E-01
Total	0,00E+00	2,10E+01

CALCULATION RULES

DECLARED UNIT	1000 kg
ASSUMPTIONS	No assumptions have been done
CUT-OFF RULES	No cut-off contributions have been considered
LCA METHOD	Cut-off by classification
CHARACTERISATION FACTORS	EF 3.1
EMPLOYEE COMMUTING	<ul style="list-style-type: none"> • Staff movements; • Production of capital goods and buildings.
DATA QUALITY	<p>UPSTREAM phase:</p> <ul style="list-style-type: none"> • Site-specific data regarding weight, quantity, raw materials, raw materials packaging, raw materials transportation, electrical and thermal energy. <p>CORE phase:</p> <ul style="list-style-type: none"> • Site-specific data regarding auxiliary materials, emissions to the atmosphere, internal transport, waste transport and treatment.
ALLOCATION	The allocation of input and output flows to the studied system was carried out on a mass basis considering the entire production of the plant.
GENERIC DATA	Criteria of geographical equivalence, technological equivalence, and equivalence with respect to system boundaries.

SCENARIOS AND OTHER TECHNICAL INFORMATION

INCLUDED PROCESSES
A1-A3

The UPSTREAM phase (A1) includes:

- the extraction and transformation of raw materials into a raw material, not yet definable as a finished product, including the packaging used for the individual materials;
- the generation and supply of energy required for the extraction and refining of the raw material;
- the generation of energy used for the production of the finished product; specific electricity mix: 0,683 kg CO2 eq/kWh;
- the production of waste resulting from these processes.

The CORE phase (A2 and A3) includes:

- external and internal transportation;
- product manufacturing;
- production of auxiliary materials required to obtain the finished product;
- production of the finished product packaging;
- waste management related to the production process.

END OF LIFE SCENARIO
C1-C4, D

The construction and demolition waste scenario from Eionet (European Environment Information and Observation Network) was used: "Construction and Demolition Waste: challenges and opportunities in a circular economy" (2020).

Phase	Scenario	Modelling	
C1	Dismantling	Diesel consumption, 0,044 MJ/kg product	
C2	Waste transport	kg product per 100 km	
Phase	Scenario	Concrete	Phase
C3	Recycling [%]	95,00%	C3
	Energy recovery [%]	0,00%	0,00%
C4	Landfill [%]	5,00%	C4

ENVIRONMENTAL IMPACT INDICATORS

Impact categories

GWP	Potential global warming at 100 years	<p>GWP – Global Warming Potential</p> <p>GWP quantifies the contribution of a greenhouse gas (e.g., CH₄, N₂O, CFCs, etc.) to the greenhouse effect relative to that of CO₂, which has a reference potential of 1. The ultimate goal is to estimate the impacts caused by the rise in average temperature on humans, ecosystems, and materials.</p> <p>The method for characterizing the impacts of greenhouse gases is based on the EF 3.1 method, which uses kilograms of CO₂ equivalent over a 100-year time horizon as the impact indicator.</p>
GWP-fossil	Potential global warming at 100 years - Fossil	
GWP-biogenic	Potential global warming at 100 years - Biogenic	
GWP-land use	Potential global warming at 100 years – soil use and change in soil use	
ODP	Potential for depletion of the stratospheric ozone layer	<p>Ozone Layer Depletion</p> <p>Ozone is a gas found in the stratosphere that protects the Earth from the ultraviolet rays emitted by the sun. The depletion of the ozone layer caused by unstable compounds (such as CFCs, HCFCs, etc.) allows more UV rays to reach the Earth's surface, resulting in adverse effects on humans, ecosystems, and materials. The method for characterizing these impacts is based on the guidelines of the World Meteorological Organization (WMO), which uses kilograms of CFC-11 equivalent (ODP, Ozone Depletion Potential—based on a relative scale that compares the gas in question to CFC-11) as an impact indicator.</p>
AP	Potential for soil and water acidification	<p>Soil acidification</p> <p>The acidification indicator is linked to atmospheric emissions of specific acidifying substances that cause changes in the pH of rain, soil, and water. The method for characterizing the impacts of acidification is based on the findings of the Centre for Environmental Sciences in Leiden, NL (CML), which uses kilograms of SO₂ equivalent (AP, Acidification Potential—based on a relative scale that compares the substance in question with an equal mass of SO₂ equivalent) as an impact indicator.</p>
EP-freshwater	Eutrophication potential, freshwater	<p>Water Eutrophication</p> <p>This refers to a condition of excessive nitrate and phosphate levels in an aquatic environment, which leads to the proliferation of microscopic algae and increased bacterial activity; the resulting decrease in oxygen levels in the water and soil causes environmental degradation with serious impacts on ecosystems. The method for characterizing the impacts of eutrophication is based on the findings of the Centre for Environmental Sciences in Leiden, NL (CML), which uses kilograms of phosphorus equivalent (EP, Eutrophication Potential—based on a relative scale that compares the substance in question with an equal mass of P) as an impact indicator.</p>
EP-marine	Eutrophication potential, saltwater	
EP-terrestrial	Eutrophication potential, terrestrial	
POCP	Photochemical formation of ozone	<p>Formation of photochemical oxidants</p> <p>This phenomenon results from the reaction of unburned hydrocarbons and nitrogen oxides present in exhaust fumes when exposed to solar radiation, leading to the formation of ozone, which is harmful to health. The method for characterizing the impacts of photochemical smog is based on the guidelines established by the United Nations Economic Commission for Europe (UNECE), which uses kilograms of C₂H₄-equivalent POCP (Photochemical Ozone Creation Potential—based on a relative scale that compares the substance in question with an equal mass of C₂H₄-equivalent POCP) as an impact indicator.</p>
ADPF	Potential depletion of fossil abiotic resources	<p>ADP – Abiotic Depletion</p>
ADPE	Potential depletion of non-fossil abiotic resources	
Water Use	Water use	Water Use

LCA RESULTS

IMPACT CATEGORY INDICATORS

	<p>BLOCK BLOCK SFUSO</p>
	<p>ISI 310</p>
	<p>MURATURA MURATURA SFUSO</p>
	<p>TIXO</p>
	<p>GRIGIFORMA 3_30</p>
	<p>UNI RR</p>
	<p>UNIX UNIX SFUSO</p>

BLOCK

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq.	4,03E+02	2,31E+01	6,00E+00	4,32E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO ₂ eq.	5,06E+00	1,50E-02	-5,08E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO ₂ eq.	6,21E-02	7,18E-03	4,60E-02	1,15E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO ₂ eq.	4,08E+02	2,31E+01	9,73E-01	4,33E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq.	5,28E-06	5,06E-07	2,44E-07	6,03E-06	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H ⁺ eq.	9,67E-01	8,50E-02	3,03E-02	1,08E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq.	4,26E-02	1,48E-03	3,69E-03	4,78E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq.	2,69E-01	3,06E-02	1,09E-02	3,11E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq.	3,04E+00	3,33E-01	9,87E-02	3,47E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq.	8,74E-01	1,29E-01	3,72E-02	1,04E+00	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq.	1,53E-01	7,25E-05	2,69E-05	1,53E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,90E+02	2,42E+01	3,03E+01	8,45E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	3,21E+01	1,20E+00	4,51E+00	3,78E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,49E+02	5,04E+00	1,09E+02	2,63E+02	3,63E-01	4,41E+00	1,06E+01	1,39E+02	-9,94E+00
PERM	MJ	7,58E+00	0,00E+00	1,32E+02	1,39E+02	0,00E+00	0,00E+00	0,00E+00	-1,39E+02	0,00E+00
PERT	MJ	1,56E+02	5,04E+00	2,40E+02	4,02E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	7,40E+02	2,42E+01	0,00E+00	7,64E+02	2,24E+00	2,12E+01	3,48E+01	9,92E+01	-1,90E+01
PENRM	MJ	5,08E+01	0,00E+00	4,67E+01	9,75E+01	0,00E+00	0,00E+00	0,00E+00	-9,75E+01	0,00E+00
PENRT	MJ	7,90E+02	2,42E+01	4,67E+01	8,61E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	8,44E-01	3,84E-02	1,21E-01	1,00E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	4,93E-02	7,86E-03	2,26E-02	7,98E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	2,80E+01	1,46E+01	1,83E+00	4,44E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	3,55E-03	9,10E-05	1,94E-04	3,83E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	4,80E-02
in the final product packaging	kg C	1,72E+00

BLOCK - BULK

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	4,02E+02	2,31E+01	4,26E-01	4,25E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	5,43E+00	1,50E-02	4,91E-01	5,94E+00	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	6,16E-02	7,18E-03	2,96E-05	6,88E-02	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	4,07E+02	2,31E+01	9,17E-01	4,31E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	5,24E-06	5,06E-07	3,15E-08	5,78E-06	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	9,62E-01	8,50E-02	3,49E-04	1,05E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,21E-02	1,48E-03	8,41E-06	4,36E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,68E-01	3,06E-02	5,55E-04	2,99E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	3,03E+00	3,33E-01	1,30E-03	3,36E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	8,69E-01	1,29E-01	6,15E-04	9,98E-01	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,53E-01	7,25E-05	2,34E-07	1,53E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,82E+02	2,42E+01	1,30E-01	8,06E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	3,20E+01	1,20E+00	-3,17E-02	3,31E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,46E+02	5,04E+00	2,69E-02	1,51E+02	3,63E-01	4,41E+00	1,06E+01	3,81E+00	-9,94E+00
PERM	MJ	3,58E+00	0,00E+00	0,00E+00	3,58E+00	0,00E+00	0,00E+00	0,00E+00	-3,58E+00	0,00E+00
PERT	MJ	1,50E+02	5,04E+00	2,69E-02	1,55E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	7,31E+02	2,42E+01	1,30E-01	7,56E+02	2,24E+00	2,12E+01	3,48E+01	5,24E+01	-1,90E+01
PENRM	MJ	5,08E+01	0,00E+00	0,00E+00	5,08E+01	0,00E+00	0,00E+00	0,00E+00	-5,08E+01	0,00E+00
PENRT	MJ	7,82E+02	2,42E+01	1,30E-01	8,06E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	8,39E-01	3,84E-02	-5,41E-04	8,77E-01	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	4,88E-02	7,86E-03	3,99E-03	6,07E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	2,80E+01	1,46E+01	3,42E-01	4,29E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	3,52E-03	9,10E-05	4,76E-07	3,61E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	5,75E-01	5,75E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	4,80E-02
in the final product packaging	kg C	0,00E+00

ISI 310

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	4,40E+02	2,15E+01	6,00E+00	4,67E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	3,69E+00	1,39E-02	-3,70E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	7,39E-02	6,66E-03	4,60E-02	1,27E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	4,44E+02	2,15E+01	2,35E+00	4,68E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	1,78E-05	4,70E-07	2,44E-07	1,85E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	1,09E+00	8,20E-02	3,03E-02	1,20E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,94E-02	1,37E-03	3,69E-03	5,45E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	3,23E-01	2,93E-02	1,09E-02	3,63E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	3,25E+00	3,20E-01	9,87E-02	3,67E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	9,49E-01	1,22E-01	3,72E-02	1,11E+00	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,02E-01	6,68E-05	2,69E-05	1,02E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	8,74E+02	2,23E+01	3,03E+01	9,26E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	7,45E+01	1,11E+00	4,51E+00	8,01E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,30E+02	4,65E+00	1,09E+02	2,44E+02	3,63E-01	4,41E+00	1,06E+01	1,57E+02	-9,94E+00
PERM	MJ	2,52E+01	0,00E+00	1,32E+02	1,57E+02	0,00E+00	0,00E+00	0,00E+00	-1,57E+02	0,00E+00
PERT	MJ	1,55E+02	4,65E+00	2,40E+02	4,00E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,45E+02	2,23E+01	0,00E+00	3,68E+02	2,24E+00	2,12E+01	3,48E+01	5,77E+02	-1,90E+01
PENRM	MJ	5,29E+02	0,00E+00	4,67E+01	5,76E+02	0,00E+00	0,00E+00	0,00E+00	-5,76E+02	0,00E+00
PENRT	MJ	8,74E+02	2,23E+01	4,67E+01	9,43E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,82E+00	3,55E-02	1,21E-01	1,98E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	8,99E-02	7,26E-03	2,26E-02	1,20E-01	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	2,86E+01	1,34E+01	1,83E+00	4,38E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	3,01E-03	8,40E-05	1,94E-04	3,29E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	3,32E-01
in the final product packaging	kg C	1,72E+00

MURATURA

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	2,80E+02	3,81E+01	6,00E+00	3,24E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	1,55E+00	2,53E-02	-1,58E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	9,08E-02	1,21E-02	4,60E-02	1,49E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	2,81E+02	3,81E+01	4,47E+00	3,24E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	1,27E-05	8,31E-07	2,44E-07	1,37E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	7,74E-01	1,34E-01	3,03E-02	9,38E-01	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	3,58E-02	2,50E-03	3,69E-03	4,20E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,21E-01	4,70E-02	1,09E-02	2,79E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,28E+00	5,12E-01	9,87E-02	2,89E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	6,91E-01	2,02E-01	3,72E-02	9,30E-01	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,15E-01	1,23E-04	2,69E-05	1,15E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	6,86E+02	4,08E+01	3,03E+01	7,57E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	3,93E+01	2,02E+00	4,51E+00	4,58E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,49E+02	8,49E+00	1,09E+02	2,66E+02	3,63E-01	4,41E+00	1,06E+01	1,54E+02	-9,94E+00
PERM	MJ	2,26E+01	0,00E+00	1,32E+02	1,54E+02	0,00E+00	0,00E+00	0,00E+00	-1,54E+02	0,00E+00
PERT	MJ	1,72E+02	8,49E+00	2,40E+02	4,21E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,61E+02	4,08E+01	0,00E+00	4,01E+02	2,24E+00	2,12E+01	3,48E+01	3,74E+02	-1,90E+01
PENRM	MJ	3,26E+02	0,00E+00	4,67E+01	3,72E+02	0,00E+00	0,00E+00	0,00E+00	-3,72E+02	0,00E+00
PENRT	MJ	6,86E+02	4,08E+01	4,67E+01	7,74E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	9,32E-01	6,47E-02	1,21E-01	1,12E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	4,92E-02	1,32E-02	2,26E-02	8,50E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,89E+01	2,47E+01	1,83E+00	4,54E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	2,86E-03	1,53E-04	1,94E-04	3,21E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	3,44E-01
in the final product packaging	kg C	1,72E+00

MURATURA – BULK

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO ₂ eq	2,78E+02	3,81E+01	4,26E-01	3,16E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO ₂ eq	1,92E+00	2,53E-02	4,91E-01	2,44E+00	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO ₂ eq	9,03E-02	1,21E-02	2,96E-05	1,02E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO ₂ eq	2,80E+02	3,81E+01	9,17E-01	3,19E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	1,26E-05	8,31E-07	3,15E-08	1,35E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H ⁺ eq	7,68E-01	1,34E-01	3,49E-04	9,03E-01	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	3,53E-02	2,50E-03	8,41E-06	3,78E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,20E-01	4,70E-02	5,55E-04	2,68E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,27E+00	5,12E-01	1,30E-03	2,78E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	6,86E-01	2,02E-01	6,15E-04	8,89E-01	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,15E-01	1,23E-04	2,34E-07	1,15E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	6,77E+02	4,08E+01	1,30E-01	7,18E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	3,91E+01	2,02E+00	-3,17E-02	4,11E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,46E+02	8,49E+00	2,69E-02	1,55E+02	3,63E-01	4,41E+00	1,06E+01	1,89E+01	-9,94E+00
PERM	MJ	1,86E+01	0,00E+00	0,00E+00	1,86E+01	0,00E+00	0,00E+00	0,00E+00	-1,86E+01	0,00E+00
PERT	MJ	1,65E+02	8,49E+00	2,69E-02	1,74E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,52E+02	4,08E+01	1,30E-01	3,93E+02	2,24E+00	2,12E+01	3,48E+01	3,27E+02	-1,90E+01
PENRM	MJ	3,26E+02	0,00E+00	0,00E+00	3,26E+02	0,00E+00	0,00E+00	0,00E+00	-3,26E+02	0,00E+00
PENRT	MJ	6,78E+02	4,08E+01	1,30E-01	7,19E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	9,27E-01	6,47E-02	-5,41E-04	9,91E-01	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	4,88E-02	1,32E-02	3,99E-03	6,59E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,89E+01	2,47E+01	3,42E-01	4,39E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	2,83E-03	1,53E-04	4,76E-07	2,99E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	5,75E-01	5,75E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	3,44E-01
in the final product packaging	kg C	0,00E+00

TIXO

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	3,83E+02	2,45E+01	6,00E+00	4,13E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	3,98E+00	1,60E-02	-3,99E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	5,21E-02	7,65E-03	4,60E-02	1,06E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	3,87E+02	2,46E+01	2,06E+00	4,14E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	4,28E-06	5,37E-07	2,44E-07	5,06E-06	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	9,81E-01	8,94E-02	3,03E-02	1,10E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	3,61E-02	1,58E-03	3,69E-03	4,14E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,51E-01	3,21E-02	1,09E-02	2,94E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,77E+00	3,50E-01	9,87E-02	3,22E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	8,39E-01	1,35E-01	3,72E-02	1,01E+00	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,18E-01	7,73E-05	2,69E-05	1,18E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,81E+02	2,58E+01	3,03E+01	8,37E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	6,77E+01	1,27E+00	4,51E+00	7,35E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,66E+02	5,37E+00	1,09E+02	2,80E+02	3,63E-01	4,41E+00	1,06E+01	1,39E+02	-9,94E+00
PERM	MJ	6,99E+00	0,00E+00	1,32E+02	1,39E+02	0,00E+00	0,00E+00	0,00E+00	-1,39E+02	0,00E+00
PERT	MJ	1,73E+02	5,37E+00	2,40E+02	4,19E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	2,46E+02	2,58E+01	0,00E+00	2,72E+02	2,24E+00	2,12E+01	3,48E+01	5,84E+02	-1,90E+01
PENRM	MJ	5,35E+02	0,00E+00	4,67E+01	5,82E+02	0,00E+00	0,00E+00	0,00E+00	-5,82E+02	0,00E+00
PENRT	MJ	7,81E+02	2,58E+01	4,67E+01	8,54E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,60E+00	4,09E-02	1,21E-01	1,76E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01
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									

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	8,12E-02	8,37E-03	2,26E-02	1,12E-01	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	2,26E+01	1,55E+01	1,83E+00	4,00E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	3,75E-03	9,69E-05	1,94E-04	4,04E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	4,00E-02
in the final product packaging	kg C	1,72E+00

GRIGOFORMA 3_30

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	2,71E+02	1,74E+01	6,09E+00	2,94E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	6,26E-01	1,10E-02	-6,36E-01	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	6,55E-02	5,31E-03	4,61E-02	1,17E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	2,72E+02	1,74E+01	5,50E+00	2,95E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	2,40E-05	3,80E-07	2,46E-07	2,46E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	8,85E-01	6,97E-02	3,05E-02	9,85E-01	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,82E-02	1,09E-03	3,71E-03	5,30E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,44E-01	2,51E-02	1,10E-02	2,81E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,26E+00	2,74E-01	9,93E-02	2,63E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	6,95E-01	1,03E-01	3,76E-02	8,35E-01	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	1,28E-01	5,29E-05	2,73E-05	1,28E-01	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,25E+02	1,77E+01	3,07E+01	7,74E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	1,03E+02	8,79E-01	4,55E+00	1,09E+02	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,31E+02	3,70E+00	1,09E+02	2,43E+02	3,63E-01	4,41E+00	1,06E+01	1,60E+02	-9,94E+00
PERM	MJ	2,80E+01	0,00E+00	1,32E+02	1,60E+02	0,00E+00	0,00E+00	0,00E+00	-1,60E+02	0,00E+00
PERT	MJ	1,59E+02	3,70E+00	2,41E+02	4,03E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	4,80E+02	1,77E+01	0,00E+00	4,98E+02	2,24E+00	2,12E+01	3,48E+01	2,95E+02	-1,90E+01
PENRM	MJ	2,46E+02	0,00E+00	4,76E+01	2,94E+02	0,00E+00	0,00E+00	0,00E+00	-2,94E+02	0,00E+00
PENRT	MJ	7,26E+02	1,77E+01	4,76E+01	7,91E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	2,51E+00	2,83E-02	1,22E-01	2,66E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	5,28E-02	5,78E-03	2,27E-02	8,12E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,82E+01	1,06E+01	1,84E+00	3,06E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	2,60E-03	6,68E-05	1,96E-04	2,86E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Acronyms 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; EEE = Exported energy, electricity;
 EET = Exported energy, thermal

Disclaimer [1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators

Biogenic carbon	Unit	Value
in the final product	kg C	3,24E-01
in the final product packaging	kg C	1,72E+00

UNI RR

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	2,71E+02	3,43E+01	6,00E+00	3,12E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	-4,39E+00	1,97E-02	4,37E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	4,11E-01	1,16E-02	4,60E-02	4,69E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	2,67E+02	3,43E+01	1,04E+01	3,12E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	2,90E-05	7,22E-07	2,44E-07	3,00E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	8,09E-01	2,15E-01	3,03E-02	1,05E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,78E-02	2,13E-03	3,69E-03	5,36E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,68E-01	6,51E-02	1,09E-02	3,44E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,26E+00	7,15E-01	9,87E-02	3,07E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	6,88E-01	2,45E-01	3,72E-02	9,70E-01	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	5,25E-04	1,02E-04	2,69E-05	6,54E-04	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,49E+02	3,46E+01	3,03E+01	8,14E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	7,33E+01	1,71E+00	4,51E+00	7,95E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,24E+02	7,13E+00	1,09E+02	2,40E+02	3,63E-01	4,41E+00	1,06E+01	1,88E+02	-9,94E+00
PERM	MJ	5,58E+01	0,00E+00	1,32E+02	1,87E+02	0,00E+00	0,00E+00	0,00E+00	-1,87E+02	0,00E+00
PERT	MJ	1,80E+02	7,13E+00	2,40E+02	4,28E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,89E+02	3,46E+01	0,00E+00	4,23E+02	2,24E+00	2,12E+01	3,48E+01	4,09E+02	-1,90E+01
PENRM	MJ	3,61E+02	0,00E+00	4,67E+01	4,07E+02	0,00E+00	0,00E+00	0,00E+00	-4,07E+02	0,00E+00
PENRT	MJ	7,49E+02	3,46E+01	4,67E+01	8,31E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	1,74E+00	5,49E-02	1,21E-01	1,91E+00	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	5,91E-02	1,10E-02	2,26E-02	9,28E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,85E+01	1,98E+01	1,83E+00	4,01E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	1,71E-03	1,27E-04	1,94E-04	2,04E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
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Biogenic carbon	Unit	Value
in the final product	kg C	1,22E+00
in the final product packaging	kg C	1,72E+00

UNIX

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	2,79E+02	4,60E+01	6,00E+00	3,31E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	-1,36E+00	2,75E-02	1,33E+00	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	1,17E-01	1,55E-02	4,60E-02	1,78E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	2,78E+02	4,60E+01	7,38E+00	3,31E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	3,42E-05	9,75E-07	2,44E-07	3,54E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	7,51E-01	2,57E-01	3,03E-02	1,04E+00	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,55E-02	2,92E-03	3,69E-03	5,21E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,74E-01	7,89E-02	1,09E-02	3,64E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,32E+00	8,65E-01	9,87E-02	3,28E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	7,07E-01	3,05E-01	3,72E-02	1,05E+00	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	5,01E-04	1,41E-04	2,69E-05	6,68E-04	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,22E+02	4,75E+01	3,03E+01	8,00E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	2,90E+01	2,35E+00	4,51E+00	3,59E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	8,23E+01	9,81E+00	1,09E+02	2,01E+02	3,63E-01	4,41E+00	1,06E+01	1,83E+02	-9,94E+00
PERM	MJ	5,15E+01	0,00E+00	1,32E+02	1,83E+02	0,00E+00	0,00E+00	0,00E+00	-1,83E+02	0,00E+00
PERT	MJ	1,34E+02	9,81E+00	2,40E+02	3,84E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,33E+02	4,75E+01	0,00E+00	3,81E+02	2,24E+00	2,12E+01	3,48E+01	5,08E+02	-1,90E+01
PENRM	MJ	4,60E+02	0,00E+00	4,67E+01	5,07E+02	0,00E+00	0,00E+00	0,00E+00	-5,07E+02	0,00E+00
PENRT	MJ	7,93E+02	4,75E+01	4,67E+01	8,87E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	7,29E-01	7,53E-02	1,21E-01	9,25E-01	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	5,48E-02	1,52E-02	2,26E-02	9,25E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,86E+01	2,76E+01	1,83E+00	4,80E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	1,65E-03	1,75E-04	1,94E-04	2,02E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	8,73E-01	8,73E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Acronyms	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; EEE = Exported energy, electricity; EET = Exported energy, thermal									
Disclaimer	[1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators									

Biogenic carbon	Unit	Value
in the final product	kg C	8,02E-01
in the final product packaging	kg C	1,72E+00

UNIX - BULK

Results by Declared Unit: 1000 kg

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO2 eq	2,75E+02	4,60E+01	4,26E-01	3,22E+02	4,43E+00	1,90E+01	1,79E+01	1,13E+00	-4,95E+00
GWP-biogenic	kg CO2 eq	-9,96E-01	2,75E-02	9,69E-01	1,00E-03	8,98E-04	1,30E-02	6,01E-02	1,30E-03	-1,43E-01
GWP-luluc	kg CO2 eq	1,16E-01	1,55E-02	2,96E-05	1,32E-01	4,53E-04	6,30E-03	6,82E-03	2,38E-03	-2,21E-03
GWP-total	kg CO2 eq	2,74E+02	4,60E+01	1,40E+00	3,22E+02	4,43E+00	1,90E+01	1,80E+01	1,14E+00	-5,08E+00
ODP	kg CFC 11 eq	3,41E-05	9,75E-07	3,15E-08	3,51E-05	6,60E-08	4,15E-07	3,73E-07	2,12E-08	-7,13E-08
AP	mol H+ eq	7,40E-01	2,57E-01	3,49E-04	9,98E-01	3,96E-02	6,11E-02	1,46E-01	6,90E-03	-3,33E-02
EP-freshwater	kg P eq	4,44E-02	2,92E-03	8,41E-06	4,74E-02	1,43E-04	1,30E-03	8,10E-03	1,01E-04	-1,26E-03
EP-marine	kg N eq	2,72E-01	7,89E-02	5,55E-04	3,51E-01	1,84E-02	2,06E-02	5,54E-02	2,79E-03	-8,84E-03
EP-terrestrial	mol N eq	2,29E+00	8,65E-01	1,30E-03	3,16E+00	2,02E-01	2,24E-01	6,01E-01	3,03E-02	-1,14E-01
POCP	kg NMVOC eq	6,98E-01	3,05E-01	6,15E-04	1,00E+00	6,04E-02	9,26E-02	1,92E-01	1,02E-02	-3,17E-02
ADP-minerals&metals [1]	kg Sb eq	4,96E-04	1,41E-04	2,34E-07	6,37E-04	1,58E-06	6,41E-05	3,99E-05	2,47E-06	-5,14E-05
ADP-fossil [1]	MJ	7,05E+02	4,75E+01	1,30E-01	7,52E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
WDP [1]	m ³ world eq deprived	2,88E+01	2,35E+00	-3,17E-02	3,11E+01	1,23E-01	1,05E+00	-4,78E+01	3,83E-01	-1,42E+01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
PERE	MJ	7,93E+01	9,81E+00	2,69E-02	8,91E+01	3,63E-01	4,41E+00	1,06E+01	4,78E+01	-9,94E+00
PERM	MJ	4,75E+01	0,00E+00	0,00E+00	4,75E+01	0,00E+00	0,00E+00	0,00E+00	-4,75E+01	0,00E+00
PERT	MJ	1,27E+02	9,81E+00	2,69E-02	1,37E+02	3,63E-01	4,41E+00	1,06E+01	2,32E-01	-9,94E+00
PENRE	MJ	3,16E+02	4,75E+01	1,30E-01	3,63E+02	2,24E+00	2,12E+01	3,48E+01	4,62E+02	-1,90E+01
PENRM	MJ	4,60E+02	0,00E+00	0,00E+00	4,60E+02	0,00E+00	0,00E+00	0,00E+00	-4,60E+02	0,00E+00
PENRT	MJ	7,76E+02	4,75E+01	1,30E-01	8,23E+02	2,24E+00	2,12E+01	3,48E+01	1,65E+00	-1,90E+01
SM	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m ³	7,21E-01	7,53E-02	-5,41E-04	7,95E-01	4,04E-03	3,35E-02	-1,02E+00	9,45E-03	-3,23E-01

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

Indicator	Unit	A1	A2	A3	A1-A3	C1	C2	C3	C4	D
HWD	kg	5,39E-02	1,52E-02	3,99E-03	7,31E-02	5,40E-04	6,81E-03	4,34E-02	3,84E-04	-2,40E-02
NHWD	kg	1,85E+01	2,76E+01	3,42E-01	4,64E+01	3,89E-02	1,29E+01	3,85E+02	5,05E+01	-9,12E-01
RWD	kg	1,59E-03	1,75E-04	4,76E-07	1,77E-03	6,03E-06	7,93E-05	2,50E-04	3,20E-06	-7,21E-05
CRU	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,50E+02	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	5,75E-01	5,75E-01	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	0,00E+00	0,00E+00
EET	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

Acronyms 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; EEE = Exported energy, electricity;
 EET = Exported energy, thermal

Disclaimer [1] ADPF, ADPE, Water Use: the results of these environmental impact indicators must be used carefully as the uncertainties of these results are high or as there is limited experience with such indicators

Biogenic carbon	Unit	Value
in the final product	kg C	8,02E-01
in the final product packaging	kg C	0,00E+00

GUIDELINES

Guidelines	UNI ISO 14040: 2021
	UNI ISO 14044: 2021
	UNI EN ISO 14025:2010
	EN 15804:2012+A2:2019/AC:2021
	PCR per i prodotti da costruzione: ICMQ-001/15 rev 3.2 (compliant to EN 15804+A2)
	LCA Report_Analisi del ciclo di vita di premiscelati, cementi e leganti plastici, pitture e tonachini Novembre 2025_rev.05
Regolamento EPDITALY v. 6.0 Published on: 30/10/2023	

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