

# Blended High Grade Compaction Sand

Environmental Product Declaration

**Boral Recycling, Emu Plains** 



#### In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 An EPD should provide current information and may be updated if conditions change.

An EPD should provide current information and may be updated it conditions change. The stated validity is therefore subject to the continued registration and publication at *epd-australasia.com* 

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# Program information and verification

An Environmental Product Declaration (EPD) is a standardized way of quantifying the potential environmental impacts of a product or system. EPDs are produced according to a consistent set of rules — Product Category Rules (PCR) — that define the requirements within a given product category.

These rules are a key part of ISO 14025, ISO 14040 and ISO 14044 as they enable transparency and comparability between EPDs. This EPD provides environmental indicators for Boral products under the declared PCR.

This EPD is verified to be compliant with EN 15804:2012+A2:2019/AC:2021. EPDs of construction products may not be comparable if they do not comply with EN 15804. EPDs within the same product category but from different programs or utilizing different PCRs may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same version number up to the first two digits) 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.

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

EPD version:	Type of EPD
Version 1.0	Product-Specific. The results in this EPD cover the declared materials produced from the nominated Boral Site.
Reference year for data:	FY 2023: 01/07/2022 – 30/06/2023

#### TABLE 1. EPD COMPLIANCE INFORMATION

#### CEN standard EN 15804 served as the core PCR

PCR	PCR 2019: 14 Construction Products, Version 1.3.3, 2024-12-20					
	The Technical Committee of the International EPD® System.					
PCR review was	See environdec.com for a list of members.					
conducted by	Most recent review chair: Claudia A. Peña, University of Concepción, Chile.					
	The review panel may be contacted via the Secretariat					
	environdec.com/contact.					
Independent verification of the declaration and data,	EPD process certification (Internal)					
according to ISO 14025	EPD verification by individual verifier (External)					
Procedure for follow-up						
of data during EPD validity involved third-party verifier						

# About Boral

# Boral is the largest integrated construction materials company in Australia, with a leading position underpinned by strategic locations and an extensive network of operating sites, across Australia.

For over 75 years we've been building something great in Australia - rarely a day goes by that you wouldn't pass one of our sites or trucks, enter a building, use a road, bridge, tunnel, footpath or other critical infrastructure that our people and products have helped enable.

Boral is committed to a culture of Zero Harm Today. This ensures all our employees, contractors, partners and communities in which we operate are free from harm, injury and illnesses. Boral has a team of full-time Health, Safety, Environment and Quality specialists who operate across our integrated business, offering a single interface for safety communications and innovation across raw materials, logistics, operations and placement.

### Sustainability at Boral

We recognise that our commitment and progress in managing sustainability outcomes is vital to our business and meeting the expectations of our customers. We strive to:

- Deliver innovative, superior performing and more sustainable products and solutions that respond to a changing world and better meet our customers' needs
- Drive safety performance towards world's best practice and invest in our people to enable them to deliver on our strategy
- Reduce our environmental footprint and build our resilience to climate impacts
- Reduce greenhouse gas emissions from our processes, operations and facilities, in-line with our ambition to achieve net-zero emissions by 2050.
- Reducing waste in all forms including through the efficient use of energy, conservation of water, minimizing and recycling waste materials and energy, prevention of pollution, and effective use of virgin and recovered resources and supplemental materials.
- Protecting biodiversity values at and around our facilities.
- Openly and constructively engaging with communities surrounding our operations

At Boral, we strive to create products that are as sustainable as possible across all our product streams, without any compromise to the technical integrity, quality and consistency of the end product. This needs to be done with a long-term lens, ensuring that all constituents included in mix designs (whether concrete, asphalt, quarried or recycled) are able to be recycled for continual re-use.



# About Boral

### **Technical services**

### As one of Australia's largest construction materials companies, Boral is committed to excellence, providing customers with quality products and reliable service.

Our aim is to provide products backed up by specialized testing as well as extensive quality control procedures and technical support. To ensure we remain at the forefront, we constantly improve, develop and refine our products to maintain the high standards customers have come to expect.

Our production, technical and our customers are committed to quality excellence in our manufacturing process.

We have committed additional resources to research, and we strive to develop whole-of-life solutions that offer a sustainable future.

Our innovative products are designed in collaboration with our clients. Not only is Boral one of the only Australian construction materials company to maintain a full-service construction materials laboratory, Boral Materials Technical Services is also the largest facility of its kind in the country, providing special and standard testing and product development services to Boral and our customers.

Boral maintains an ISO 9001-certified Quality System to ensure we conduct a regular regime of physical properties testing on all materials to certify they:

- Meet Australian Standards in the civil and structural construction industry
- Comply with applicable legislation, regulations and industry standards
- Meet project specifications
- Allow for continuous improvement.

Boral laboratory facilities are NATA-accredited for construction materials testing and chemical testing. These customer-focused services have earned Boral the reputation of a market leader in its approach.



# **Boral Recycling Operations**

Boral Recycling processes over 2 million tonnes of construction and demolition material annually, keeping these high value resources in circulation for as long as possible. This reuse effectively diverts significant volume from end of life landfill and diminishes reliance on virgin quarry materials.

Opportunities for the re-use of production by-products or waste materials continue to grow and are actively being pursued. Boral has the unique ability to leverage our Construction Material operations and our Laboratory Technical Services to produce high quality finished products via our network of Recycling facilities across Australia. The Boral material supply capability with our proven range of lower carbon products has Boral leading the way in transforming the industry towards a more circular economy and assist our customers achieve their sustainability goals without impacting the quality or technical capability of our products. As such Boral Recycling products and services may be able to assist in achieving credits with several major sustainability rating schemes, including:

### **ISC Rating Scheme**

The IS rating scheme scores infrastructure assets on a broad range of sustainability areas, from greenhouse gas emissions to community health and well-being for each project stage. Boral Recycling's products and services may assist IS registered projects gain credits in several key credits:

Credit Topic	ISC Rating – v2.1	Evidence
Resource Recovery	Rso-4	To reward the sustainable management of resource outputs (waste).
Material Life Cycle Impacts	Rso-6	To reward the reduction of embodied environmental impacts associated with materials
Sustainably labelled Products	Rso-7	To reward the use of materials with environmental labels

TABLE 2. APPLICABLE ISC RATING CREDITS

### **Green Star**

The Green Star rating scheme provides a framework for understanding and communicating the sustainability performance of a property, master plan or building refurbishment. Boral Recycling's products and services may assist Green Star registered projects to gain credits in several key credits:

TABLE 3. APPLICABLE GREEN STAR CREDITS

Credit Topic	Green Star Buildings – v1	Evidence
Responsible	CREDIT 2 Responsible Construction	Boral Recycling is a Green Star accredited waste processing facility – with a recovery rate of over 99+%
Responsible	CREDIT 5 & 6 Responsible Structure	Boral Recycling products are available in the GBCA RPV tool for selection.
Positive	CREDIT 21 Upfront Carbon Emissions	Boral Recycling products can help to reduce upfront carbon emissions and our EPDs available for our products to help with reporting.

# **Declared Products**

This EPD covers the below declared product's life cycle from cradle to gate with modules C1-C4 and module D (A1-A3 + C + D), environmental profiles and parameters of each product group are expressed per tonne.

### **TABLE 4.** DECLARED EPD INFORMATION

Declared Product	Blended High Grade Compaction Sar	nd				
Product Supplied From	Boral Recycling Emu Plains					
Boral Product Code	133659 - SAND HIGH GRD COMPACTI	ON				
UN CPC Code	153 UN CPC Code 153					
Declared Unit	One tonne (t)					
Recycling rate at EOL	100%					
Scope	Cradle to gate with modules C1-C4 and module D (A1-A3 + C + D)					
Reference year	FY2023					

#### This Environmental Product Declaration (EPD) is generated on a product by site basis.

### **Product Description**

Boral's Blended High Grade Compaction Sand contains natural and resource recovered sand, blended with double washed glass sand that is tested and compliant to the EPA Recovered Glass Order. The constituents are blended together at a ratio to meet the Sydney Water PS-350\_SW specification and in accordance with the Boral Specific Resource Recovery Order. This material is designed to meet Sydney Water PS-350 Compaction Sand specification for use in pipe embedment applications.

In partnership with John Holland on the Upper South Creek project, Boral and John Holland worked for over 15 months to gain initial project approval from Sydney Water via a deviation to the PS-350\_SW specification to utilise it's Blended High Grade Compaction Sand as an alternative sustainable material for use on the project. This process included additional testing to the specification and an onsite trial to prove the Blended High Grade Compaction Sand was safe to use and caused no adverse outcomes when compared with a virgin compaction material. Since the deviation and subsequent succesful trial, Sydney Water has granted blanket approval across their projects as indicated in their document EPS 501 – List of Approved Non-Standard Products for Network (Version 3 – 2/10/2024).

### Content declaration (% by weight)

### **TABLE 5**. DECLARED PRODUCT COMPOSITION

EPD version	Weight, kg	Post Consumer recycled material, weight-% of product		Biogenic material, kg C/product or declared unit
Envir-O-Agg Glass Sand	0-400	0-40%	0	0
Natural Fine Sand	0-400	0	0	0
Natural Regatta Sand	0-600	0	0	0
Natural Coarse Sand	0-600	0	0	0
Total	1000	0-40%	0	0

The product contains no biogenic carbon and is delivered in bulk without packaging and No materials contained in the product are listed on the REACH Candidate list for Substances of Very High Concern.

#### 6 Boral | Recycling, Emu Plains

# System Boundaries

This EPD has a Cradle-to-gate with modules C1–C4 and module D, which includes transport of materials to Boral Recycling, washing & screening, mining of natural sand, and blending & stockpiling; and end of life reuse and disposal scenarios. Other life cycle stages (Modules A4-A5, B1-B7) are dependent on particular scenarios and best modeled at the project level.

#### TABLE 6. SCOPE OF EPD

		duct ige	Constr stc				Us	e sta	ge			End-of-life stage		Benefits beyond system boundary		
	Transport	Manufacturing	Transport	Construction installation Process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Demolition	Transport	Waste processing	Disposal	Reuse, recovery, recycling potential
Modules	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	~	~	ND	ND	ND	ND	ND	ND	ND	ND	ND	~	~	~	~	<ul> <li></li> </ul>
Geography	AU	AU										AU	AU	AU	AU	AU
Share of specific data	> 9	90%														
Variation of products	Not re	elevant														
Variation of sites	Not re	levant														

 $\checkmark$  = module is included in this study ND = module is not declared\*

### Module A1-A3: Product Stage

The product stage covers the transport of the HGCS constituents to Boral Recycling Emu Plains; including natural resource recovered sand from various projects across the eastern suburbs of Sydney and double washed post-consumer crushed glass fines (Envir-O-Agg-Glass Sand), where the waste is sourced from a variety of councils in the Sydney and Central Coast regions. Theses materials are washed and screened before blended and stockpiled on site. Module A considers the impacts of these process and includes waste generated by these production methods.

### Module C1-C4: End-of-life Stage

Module C considers the end of life stages of Boral HGCS and its environmental impact once it has reached the end of current intended usage. The most likely scenario involves the replacement of pipe infrastructure at the end of its useable life – requiring the excavation of pipe embedment material to replace end-of-life pipe infrastructure. Fine aggregates, including the Boral HGCS, have the capability to be re-used/recycled perpetually with minimal to no further processing. it is expected that this material may be reused as bedding material for new pipeline infrastructure in its entirety on site. Hence, the recycling/reuse scenario is considered the more likely scenario.

### Module D: Re-use, Recovery & Recycling Potential

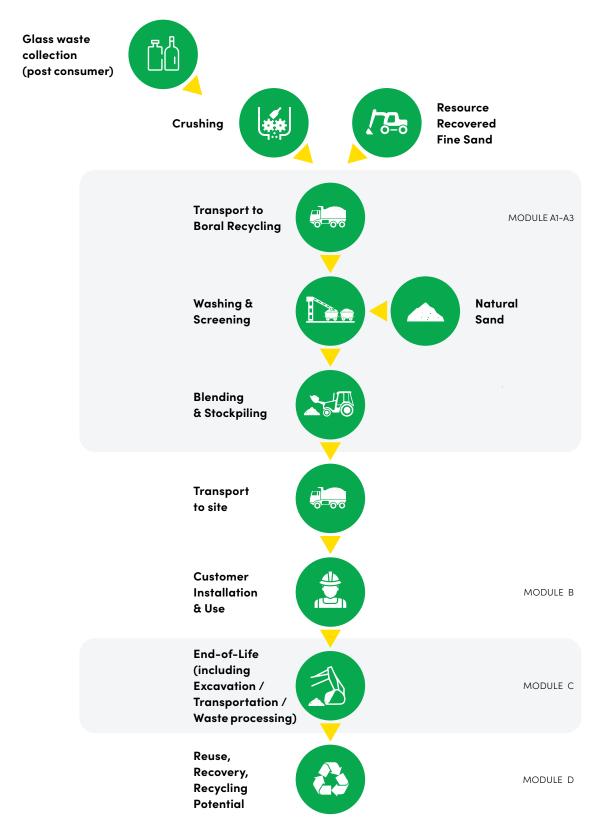
In determining the net flow of secondary material that makes it to module D, we assumed 200 kg of recycled glass input per tonne of HGCs and 1 000 kg of HGCS is recycled at end-of-life. Therefore, 800 kg of virgin sand are avoided in module D for every tonne of HGCS that reaches the end-of-life. We also assume that transport of virgin sand (63 km) is avoided.

As the material is produced to a specification prior to being place in a trench around the pipe, the above assumptions are based on the material being removed without cross-contamination of other materials. This would therefore keep the integrity of the material in place for potential re-use.

The scenarios included for Module C and D are currently in use and are representative for one of the most probable alternatives.

# System Boundaries

FIGURE 1. BORAL HIGH GRADE COMPACTION SAND SYSTEM BOUNDARIES



# Life Cycle Assessment (LCA) Methodology

The background LCA of the declared products serves as the foundation for this EPD. An LCA analyses the environmental processes in the value chain of a product. It provides a comprehensive evaluation of all upstream (and some downstream) material and energy inputs and outputs. The results are provided for a range of environmental impact categories, in line with EN 15804+A2.

### Assumptions and limitations

### The results of this study and the EPD are valid for Boral products.

Products from other manufacturers will likely have different impacts due to differences in product compositions, supply chains and manufacturing processes.

The environmental parameters are based on the life cycle inventory. There is some ambiguity around their presentation, and issues to note include:

- **Background data** (e.g. for energy and transport processes, raw material extraction and manufacturing) have predominantly been sourced from AusLCI database (v1.35) and EcoInvent database (v3.8) using Simapro software version 9.5.0.0. Background data have been published between 2012 and 2022.
- **Inbound Recovered material**, where applicable, transport distances represent the declared year's average travel distance.
- **Utilities** such as diesel, electricity, and water used in the manufacturing process are allocated to products based on mass of products.
- **Water usage** is calculated using AusLCI water consumption data per tonne of coarse and fine aggregates which is 1.36 m3/tonne of sand.
- **Grid-purchased electricity mixes** have been modelled using adjusted AusLCI data to represent the estimated residual electricity grid mix in NSW, Australia. This is done by removing renewables from the Australian Energy Statistics 2024 data (Table O2). The proxy residual grid mix is made up of black coal (94.0%), natural gas (5.2%), and oil products (0.8%). The GWP-GHG intensity of the electricity is 0.89 kg CO2e/kWh.
- **Post-consumer crushed glass fines and resource recovered sand** are assumed to have reached the end of waste state after processing. The environmental impacts of processes until the end-of-waste state have been allocated to the product system generating the waste.
- **Module C and D** have been calculated using SimaPro v9.5.0.0 and Aus LCI v1.42 based on the end-of-life scenario for landfill and recycling rates outlined.

### **Cut-off Criteria**

Where possible (i.e. where data is available), all inputs and outputs to a process have been included. The cut-off criteria applied are one per cent of renewable and non-renewable primary energy usage and one per cent of the total mass input of a process.

**Ancillary materials** used on the sites including, but not limited to, grease, lubricating oils, engine oils, conveyor belts and other minor ancillary materials used during production have been excluded.

**The contribution of capital goods** (production equipment and infrastructure) and personnel are excluded, as these processes are non-attributable, and they contribute less than ten per cent to GWP GHG.

The results use characterisation methods and models as specified in EN15804:2012+A2:2019 and may not be comparable to EPDs following different standards, characterisation methods or models.

# **Environmental indicators**

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks.

The results of the impact categories abiotic depletion of minerals and metals, land use, human toxicity (cancer), human toxicity, non-cancer and ecotoxicity (freshwater) may be highly uncertain in LCAs that include capital goods/infrastructure in generic datasets, in case infrastructure/capital goods contribute greatly to the total results. This is because the LCI data of infrastructure/capital goods used to quantify these indicators in currently available generic datasets sometimes lack temporal, technological and geographical representativeness. Caution should be exercised when using the results of these indicators for decision-making purposes.

The results of modules A1 - A3 (A1 - A5 for services) without considering the results of module C is discouraged.

Impact category	Acronym	Unit
Global warming potential — Total	GWP-tot	kg CO <sub>2</sub> equivalents
Global warming potential — Fossil	GWP-fos	kg CO <sub>2</sub> equivalents
Global warming potential — Biogenic	GWP-bio	kg CO <sub>2</sub> equivalents
Global warming potential — Land use and land use change	GWP-luc	kg CO <sub>2</sub> equivalents
Depletion potential of the stratospheric ozone layer	ODP	kg CFC-11 equivalents
Acidification potential and accumulated exceedance	AP	mol H⁺ equivalents
Eutrophication potential and aquatic freshwater	EP-freshwater	kg P equivalents
Eutrophication potential and aquatic marine	EP-marine	kg N equivalents
Eutrophication potential and terrestrial	EP-terrestrial	mol N equivalents
Photochemical ozone formation potential	РОСР	kg NMVOC equivalents
Abiotic depletion potential for non-fossil resources*	ADP-minerals and metals	kg Sb equivalents
Abiotic depletion potential for fossil resources*	ADP-fossils	MJ
Water (user) deprivation potential*	WDP	m³ world equivalent deprived

TABLE 7. ENVIRONMENTAL INDICATORS ARE BASED ON IMPACT METHOD EN15804 REFERENCE PACKAGE BASED ON EF 3.1

### **Environmental indicators**

Impact category	Acronym	Unit
Global warming potential — climate impact <sup>#</sup>	GWP-GHG	kg CO <sub>2</sub> equivalents
Particulate matter emissions	PM	Disease incidence
Ionizing radiation and human health**	IRP	kBq U235 equivalents
Eco-toxicity — Freshwater*	ETP-fw	CTUe
Human toxicity potential and cancer*	HTP-c	CTUh
Human toxicity potential and non-cancer*	HTP-nc	CTUh
Land use related impacts / Soil quality*	SQP	-

#### TABLE 8. EN 15804+A2 ADDITIONAL IMPACT CATEGORIES INCLUDED IN THIS ASSESSMENT

\* 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 experience with the indicator.

\*\* This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in under- ground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

<sup>#</sup> GWP-total is calculated using the European Union's Joint Research Centre's characterisation factors (CFs) based on the "EF 3.1 package" for CFs to be used in the EU's Product Environmental Footprint (PEF) framework. CFs listed by JRC are based on the IPCC AR6 method (IPCC 2021) and include indirect radiative forcing, which results in higher numerical Global Warming Potential (GWP) values than the CFs in the internationally accepted (IPCC 2013). The GWP-GHG indicator is identical to GWP-total except that the CFs for biogenic CO2 are set to zero. The GWP-GHG indicator in PCR 2019:14 v1.3.3 differs from the GWP-GHG in earlier (pre v1.3) PCR 2019:14 versions.



# **Environmental indicators**

### TABLE 9. PARAMETERS DESCRIBING RESOURCE USE, WASTE AND OUTPUT FLOWS

Resource use	Acronym	Unit
Use of renewable primary energy excluding renewable primary energy resources used as raw materials	PERE	MJncv
Use of renewable primary energy resources used as raw materials	PERM	MJNCV
Total use of renewable primary energy resources	PERT	MJNCV
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials	PENRE	MJncv
Use of non-renewable primary energy resources used as raw materials	PENRM	MJNCV
Total use of non-renewable primary energy resources	PENRT	MJNCV
Use of secondary material	SM	kg
Use of renewable secondary fuels	RSF	MJNCV
Use of non-renewable secondary fuels	NRSF	MJNCV
Use of net fresh water	FW	m³
Waste categories		
Hazardous waste disposed	HWD	kg
Non-hazardous waste disposed	NHWD	kg
Radioactive waste disposed	RWD	kg
Output flows		
Components for re-use	CRU	kg
Materials for recycling	MFR	kg
Materials for energy recovery	MER	kg
Exported energy	EE	MJ

### **EPD** Results

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GWP - tot	kg CO <sub>2</sub> eq.	5.40E+00	5.34E+00	0.00E+00	0.00E+00	0.00E+00	-4.72E+00
GWP - fos	kg CO <sub>2</sub> eq.	5.40E+00	5.34E+00	0.00E+00	0.00E+00	0.00E+00	-4.72E+00
GWP - bio	kg CO <sub>2</sub> eq.	6.55E-04	3.54E-04	0.00E+00	0.00E+00	0.00E+00	-6.12E-03
GWP – luc	kg CO <sub>2</sub> eq.	2.16E-06	2.56E-06	0.00E+00	0.00E+00	0.00E+00	-1.52E-06
ODP	kg CFC 11 eq.	6.83E-07	8.54E-07	0.00E+00	0.00E+00	0.00E+00	-4.44E-07
AP	mol H+ eq.	4.40E-02	5.86E-02	0.00E+00	0.00E+00	0.00E+00	-4.25E-02
EP- freshwater	kg P eq.	1.21E-06	7.11E-07	0.00E+00	0.00E+00	0.00E+00	-3.45E-06
EP - marine	kg N eq.	1.42E-02	2.56E-02	0.00E+00	0.00E+00	0.00E+00	-1.47E-02
EP – terrestrial	mol N eq.	1.56E-01	2.80E-01	0.00E+00	0.00E+00	0.00E+00	-1.64E-01
POCP	kg NMVOC eq.	4.08E-02	7.48E-02	0.00E+00	0.00E+00	0.00E+00	-4.28E-02
ADP - minerals and fossils	kg Sb eq.	5.11E-09	6.30E-09	0.00E+00	0.00E+00	0.00E+00	-1.61E-07
ADP - fossils	MJ	7.13E+01	7.45E+01	0.00E+00	0.00E+00	0.00E+00	-5.93E+01
WDP	m <sup>3</sup> world eq. deprived	3.27E+00	4.78E-01	0.00E+00	0.00E+00	0.00E+00	-4.77E+01

### TABLE 10. CORE ENVIRONMENTAL IMPACT INDICATORS

#### TABLE 11. ADDITIONAL ENVIRONMENTAL IMPACT INDICATORS

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
GWP - GHG	kg CO <sub>2</sub> eq.	5.40E+00	5.34E+00	0.00E+00	0.00E+00	0.00E+00	-4.72E+00
PM	Disease incidence	8.59E-07	1.55E-06	0.00E+00	0.00E+00	0.00E+00	-8.65E-07
IRP	kBq U235 eq.	8.82E-05	1.09E-04	0.00E+00	0.00E+00	0.00E+00	-6.91E-05
ETP – fw	CTUe	1.34E+01	1.65E+01	0.00E+00	0.00E+00	0.00E+00	-9.20E+00
HTP - c	CTUh	9.53E-11	2.07E-10	0.00E+00	0.00E+00	0.00E+00	-1.97E-10
HTP – nc	CTUh	1.57E-09	1.10E-09	0.00E+00	0.00E+00	0.00E+00	-2.42E-09
SQP	dimensionless	5.28E+02	3.58E-01	0.00E+00	0.00E+00	0.00E+00	-5.23E+00

# **EPD** Results

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
PERE	MJNCV	9.50E-02	1.15E-01	0.00E+00	0.00E+00	0.00E+00	-2.15E+00
PERM	MJNCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJNCV	9.50E-02	1.15E-01	0.00E+00	0.00E+00	0.00E+00	-2.15E+00
PENRE	MJNCV	7.13E+01	7.45E+01	0.00E+00	0.00E+00	0.00E+00	-5.93E+01
PENRM	MJNCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJNCV	7.13E+01	7.45E+01	0.00E+00	0.00E+00	0.00E+00	-5.93E+01
SM	kg	4.00E+02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJNCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJNCV	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m³	1.40E+00	1.08E-02	0.00E+00	0.00E+00	0.00E+00	-1.10E+00

#### TABLE 12. PARAMETERS DESCRIBING RESOURCE USE

#### TABLE 13. OTHER ENVIRONMENTAL INFORMATION DESCRIBING WASTE CATEGORIES

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
HWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NHWD	kg	1.06E-02	3.41E-04	0.00E+00	0.00E+00	0.00E+00	-1.66E-02
RWD	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

#### TABLE 14. ENVIRONMENTAL INFORMATION DESCRIBING OUTPUT FLOWS

Indicator	Unit	A1-A3	C1	C2	C3	C4	D
CRU	kg	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	1.00E+03	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

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