Environmental Product Declaration

In accordance with ISO 14025, EN 15804+A1 and EN 16810 for:

DESSO AirMaster® Gold collection

TARKETT

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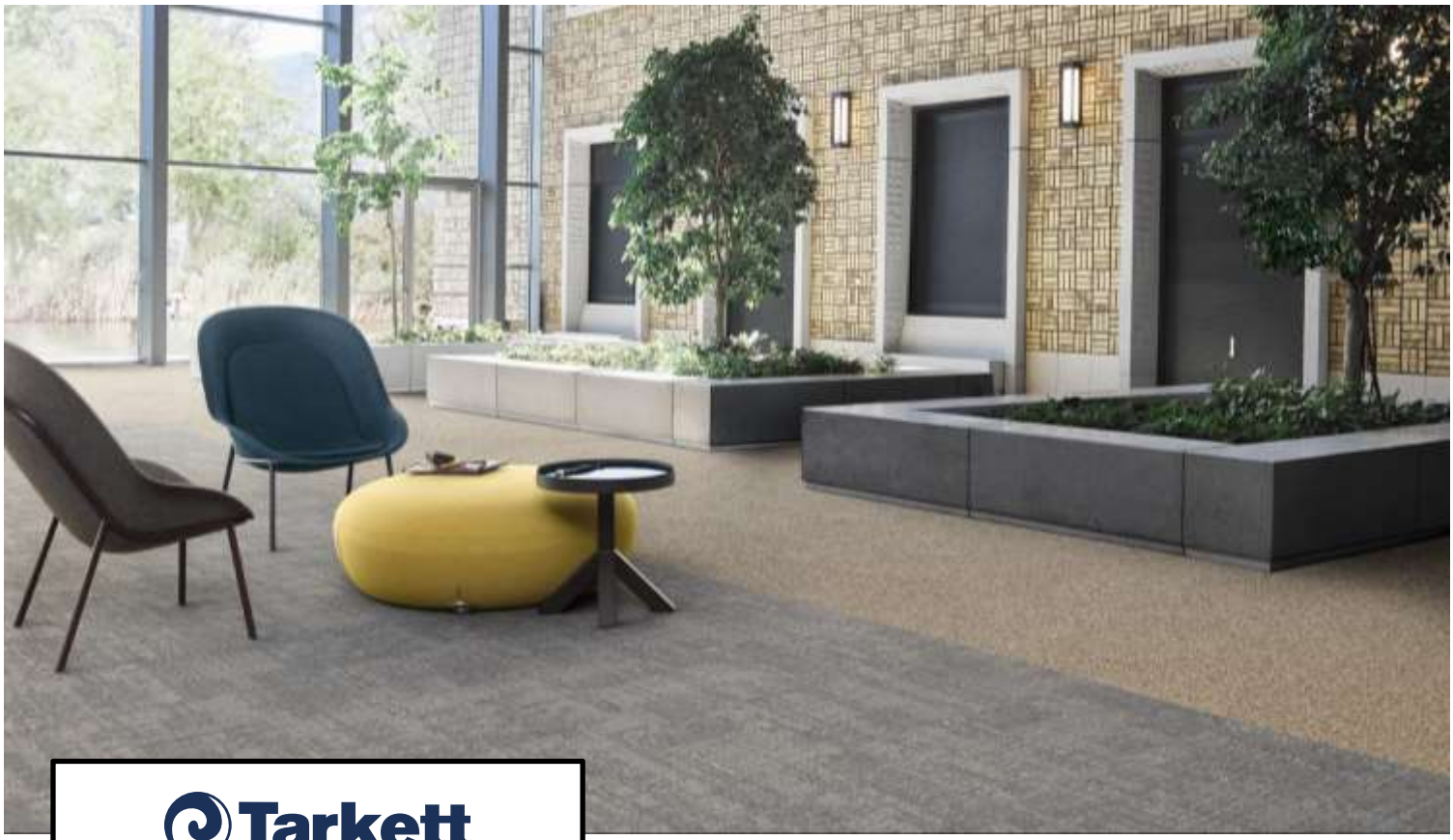


Tarkett

General information

Information about the organization

Owner of the EPD: Tarkett France. Axel ROY, +33 (0)141 204 074, axel.roy@tarkett.com, Tarkett La Défense, 1 Terrasse Bellini 92400 Paris
Description of the organisation: ISO 9001, ISO 14001, WCM manufacturing site
Name and location of production sites: Waalwijk, Netherlands and Dendermonde, Belgium

About the company

With an international coverage and a wide range of products, Tarkett has over 130 years of experience in providing integrated solutions for floorings to professionals and end users.
Many of the most important architectural firms in the world and building professionals have chosen Tarkett for the value of its products and for its consultation and service abilities. Therefore, Tarkett floorings and sport surfaces are present in several prestigious architectural reference points. Tarkett offers integrated solutions for floorings, able to meet the particular needs of customers. Our wide range of designs, colors and models provides an infinite series of possibilities, contributing to create a positive environment and a better quality of life for people.

Tarkett operates with the utmost respect for the environment towards the realization of eco-friendly products.

Tarkett's commitment to the environment is woven throughout its business. Cradle-to-Cradle principles are, in fact, the basis of the design and production of every solution. Particularly, the lifecycle analysis is used to continuously improve the production process, and so the products until their use stage, disposal and recycling. The commitment to the environment is also proven by the accession to the Circular Economy 100 program, where Tarkett group, with a network of companies, is working to develop a circular economy model based on the reuse of materials and preservation of natural resources. The development of products that can be reused within internal production cycles, or external ones in case of other individuals, has been an integral part of the business strategy aimed at sustainability for many years. The WCM (World Class Manufacturing) management system has been developed in 2009, and it includes the environmental pillar aimed to the elimination of losses and to the growth of process efficiency.

Product information

Product name:
DESSO AirMaster® Gold collection:
DESSO AirMaster® Nazca Gold
DESSO AirMaster® Salina Gold
DESSO AirMaster® Tierra Gold

Product identification: Cradle to Cradle®-Gold certified carpet tiles with a DESSO EcoBase® backing and a 100% regenerated solution dyed Nylon yarn (Econyl). This carpet is designed for optimal fine dust retention (AirMaster® technology) and closed-loop recycling.

Product description:

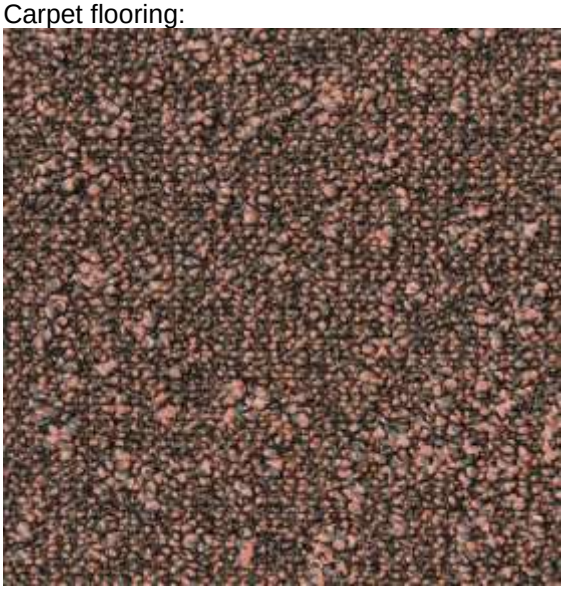
DESSO AirMaster Gold is **8 times** more effective at capturing and retaining fine dust than smooth flooring solutions (PM_{10}). It is also **4 times** more effective than standard carpet solutions (PM_{10}).[1]

Its ECONYL® regenerated yarn and EcoBase™ backing, featuring upcycled chalk, are 100% recyclable and can be recycled in a closed loop with no loss of quality.

DESSO AirMaster Gold has achieved Cradle to Cradle® Gold level certification, with Platinum level – the highest possible – for material health.

DESSO AirMaster Gold Collection offers significant lower VOC emissions than required by law or voluntary VOC standards, in line with rigorous Cradle to Cradle® Gold criteria.

The following figure shows an example of Carpet flooring:



Desso AirMaster Tierra

UN CPC code: 27230

Geographical scope: Europe

Range of application

The products are classified in accordance with EN ISO 10874, (previously EN 685) and in reference to the FCSS (Floor Covering Standard Symbols) to be used in all professional areas which require class 33 or less

LCA information

Functional unit / declared unit:

1m^2 of floor covering with a reference service life (RSL) of 1 year for specified characteristics application and use areas according to ISO 1307 and EN ISO 10874.

Reference service life:

1 year

Time representativeness:

[1] Based on tests performed by GUI with DESSOAirMaster® versus a standard smooth floor and versus standard structured loop pile carpet (median values).

2017

Database(s) and LCA software used:

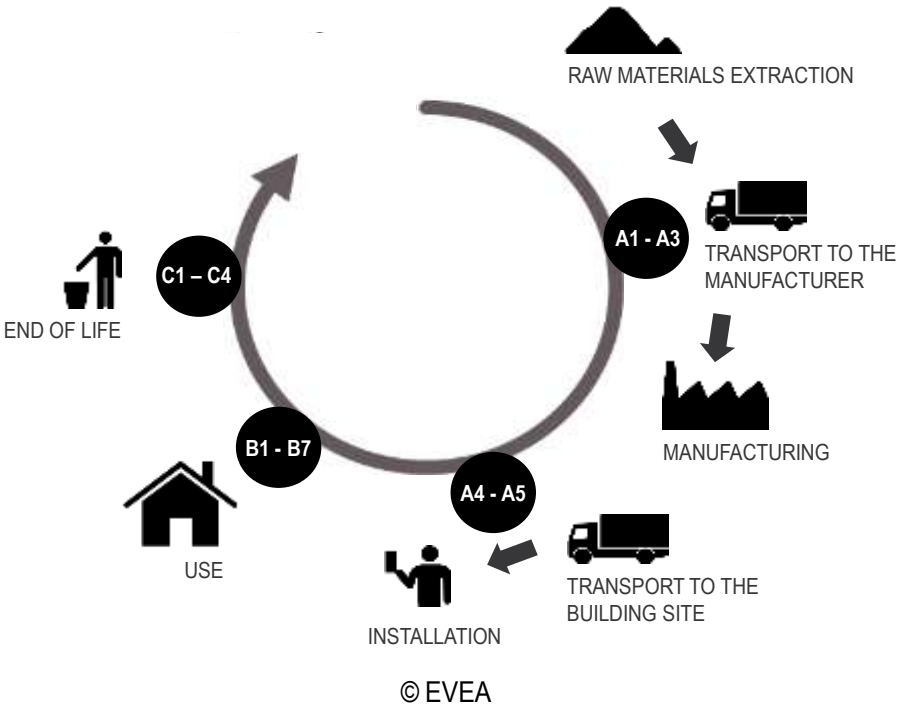
SimaPro 8.5
Ecoinvent v3.4

Description of system boundaries:

Cradle to grave

System boundaries

The system boundary is based on the EN 15804 description.
Production stage : A1 – A3: includes the provision of all raw materials, transport to the production site and energy and water consumption during the manufacturing of the product, packaging of final product, the different air emissions, as well as processing of waste generated by the factory.
Construction stage: A4 – A5: includes the transport from the factory to the final customer, the installation of the product, as well as all consumables and energy required and processing of waste generated during the installation.
Use stage B1 – B7: includes provision and transport of all materials, products and services related to the use phase of the product, as well as their related energy and water consumption, and the processing of any resulting waste.
End of life stage C1 – C4: includes provision and transport of all materials, products and services related to the end of life phase of the product, including energy and water consumption, as well as the end of life processing of the product.



Included/excluded life stages

	Production Stage			Construction Process Stage		Use Stage							End-of-Life Stage				Resource Recovery Stage
	Raw materrial supply (extraction, processing, recycled material)	Transport tp manufacturing	Manufacturing	Transport to building site	Installation into building	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconsctruction / Demolition	Transport EoL	Waste processing for reuse, recovery, recycling	Disposal	Reuse-Recycle Potential
Modules	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Accounted for :	X	X	X	X	X	MND	X	MND	MND	MND	MND	MND	X	X	X	X	X

X Module included in the study
MND : Module not declared

Use stage: Floor coverings do not contribute to modules B1 and B3 to B7 according to the standard EN 16810.

Cut-off criteria

The cut-off criteria shall be 1% of renewable and non-renewable primary energy usage and 1% of the total mass of that unit process. The total neglected input flows per module shall be a maximum of 5% of energy usage and mass.
For this study, all input and output flows have been considered at 100%, including raw materials as per the product composition provided by the manufacturer and packaging of raw materials as well as the final product.

LCA data

As a general rule, specific data derived from specific production processes or average data derived from specific production processes have been used as the first choice as a basis for calculating an EPD.
To model the life cycle of the product in question, the software SimaPro 8.5, developed by PRé, has been used in conjunction with the LCA database ecoinvent v3.4.

Data quality

The objective of this evaluation is to evaluate the environmental impacts generated by the product floor covering Carpet throughout its entire life cycle. To this end, ISO 14040, ISO 14044 and EN 15804 have been met regarding the quality of data on different following criteria:

The time factor, the life cycle inventory data used come from:

- Data collected specifically for this study on Tarkett sites. Data sets are based on 1 year averaged data.
- In the absence of collected data, generic data from the ecoinvent V3.4 cut-off by classification database. This is regularly updated and is representative of current processes

Technological Coverage

- Tarkett technologies used for the manufacture methods of the product.
- European technology in the case of use of generic data.

Geographical Coverage

- Data come from production sites of Tarkett
- The generic data come from the ecoinvent database, representative of the European processes.

Allocation

The overall values for material and energy consumptions of factories during a period of one year have been divided by the annual production of each product to supply a value per square meter of flooring produced. All factories data are measured in square meters, and it is assumed that the process consumptions are governed by area of flooring processed rather than mass.

Comparability

Basically, a comparison or an evaluation of EPD data is only possible if all the data sets to be compared were created according to /EN 15804/ and the building context, respectively the product-specific characteristics of performance, are taken into account.

Content declaration

Product

The techncial properties of DESSO AirMaster Gold carpet tiles are comparable with DESSO's carpetecture collection.

Characteristics	Product Thickness [mm]	Product Weight [kg/m²]	Impact sound reduction [dB]	Dimension stability [%]
DESSO AirMaster® Gold Salina	7	4,45	26	≤0,2%
DESSO AirMaster® Gold Tierra	6,5	4,5	22	
DESSO AirMaster® Gold Nazca	6,5	4,3	25	

Chemical composition for all representative products are presented in the following table:

Chemical substances for each representative product	Desso AirMaster® Gold Nazca	Desso AirMaster® Gold Tierra	Desso AirMaster® Gold Salina	Substance concerned with REACH
Non-woven (low Sb PET/PP)	3,3%	3,2%	3,2%	/
Yarn PA6 (100% recycled)	17,6%	19,8%	19,2%	/
SBR-compound	6,2%	6,0%	6,0%	/
Aluminium trihydrate	17,7%	17,2%	17,3%	/
Chalk (100% recycled)	41,6%	40,5%	40,8%	/
Glassscrim	0,7%	0,7%	0,7%	
Ecobase® (polyolefines)	8,0%	7,8%	7,8%	/

Material Health

All materials have been identified down to a level of 100ppm and assessed against 'Material Health' criteria as defined by the C2C product certification standard v3.1 and the C2C Material Health Assessment methodology (see www.c2ccertified.org).

DESSO AirMaster Gold has achieved a Cradle to Cradle Gold level certification, with a platinum rating for the category 'material health'. To achieve platinum level all ingredients and process chemicals down to a 100ppm level must be assessed as "positively defined",. This means that no health and ecotoxicologic risk can be expected within the most likely use-scenario and over the product's life cycle.

Recycled content (third-party verified)

DESSO AirMaster Gold contains 59-60% recycled content and is up to 100% recyclable.[2]
DESSO AirMaster products are made with ECONYL yarn and EcoBase backing. ECONYL contains 100% recycled content, EcoBase backing 75%. The recycled content is third party verified by LLoyds Register.

ECONYL yarn is a 100% regenerated nylon upcycled from post-consumer carpet yarn and discarded fishing nets.

Tarkett supports the Healthy Seas initiative. The initiative aims to remove waste, in particular fishing nets for the purpose of creating healthier seas and recycling marine litter into regenerated yarn, some of which is being used to produce PA6 yarn for DESSO AirMaster Gold products.

All AirMaster collections are delivered with the Cradle to Cradle® Gold-certified DESSO EcoBase® backing, which is 100% recyclable[3] and designed with 100% positively defined[4] ingredients, including chalk upcycled from the Dutch drinking water industry, as the raw material in our DESSO EcoBase carpet backing.

Low Antimony tuftcloth

DESSO AirMaster® collections contain a new low antimony primary backing, Colback Gold®. This first-to-market product has been designed in close collaboration with performance materials expert Low & Bonar with Cradle to Cradle® principles in mind, and delivers the same high performance with up to a 95%[5] decrease in antimony.

Antimony trioxide is a chemical used as a catalyst in the production of polyester, and a tiny, safe amount of antimony remains in the primary backing. Opting for a backing with significantly lower antimony residues forms part of our commitment to identify alternatives with better performing social and environmental credentials, in line with Cradle to Cradle® principles.

[2] With known outlets for 93% of the materials
[3] Assured by Lloyds Register
[4] Positively defined means all ingredients have been assessed as either Green (optimal) or Yellow (tolerable) according to the Cradle to Cradle® assessment criteria. As described in Cradle to Cradle® CertifiedCM Product Standard Version 3.1
[5] In comparison with standard non-woven primary backing. Neither Colback Gold nor our standard primary backing pose a risk to our customers with respect to level of antimony content, and both are well within legal limits.

Additionally, global reserves of antimony are expected to be depleted globally within 10-11 years (at the current rate of production),[6] so finding another solution allows us to continue making our products while conserve natural resources.

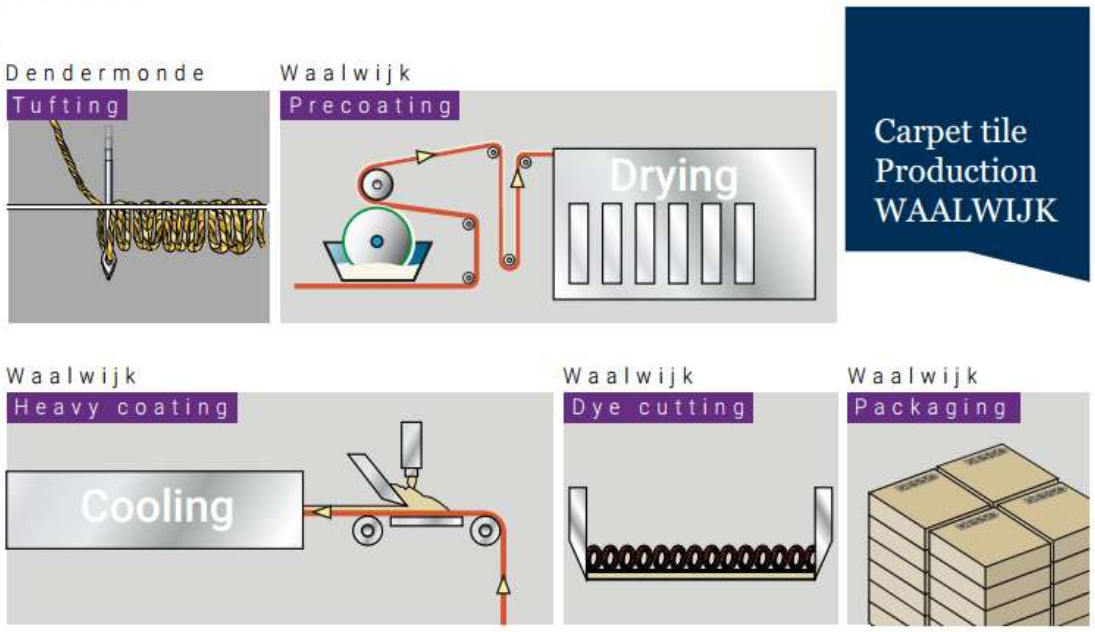
By introducing the new Colback Gold® primary backing, we are offering customers the opportunity to benefit from products with optimised material health,[7] and promoting safer recycling, while also helping to conserve finite raw material supplies. Importantly, it also takes us a step further towards fulfilling our Cradle to Cradle® ambitions and accelerating the transition to the circular economy.

The numeric results of this EPD do not reflect this product innovation, because generic datasets are used to model PET, LCA-datasets are of much lower accuracy and there is no toxicology indicator required, yet.

Product manufacturing

Production process

The production of carpet tiles is presented in the following figure:



Renewable energy

DESSO AirMaster products are produced with 100% renewable electricity from own solar panels or with Guarantees of Origin. 50% of the direct energy is off-set via carbon credits from a REDD+ business initiative in Peru. Tarkett is supporting this initiative not only for receiving carbon credits, but for supporting biodiversity and social support of local communities. Off-setting is not accounted within this EPD.

Water stewardship

The C2C-Gold standard requires to assess ingoing and outgoing water flows and optimize waterquality of the effluent. All process chemicals are free of hazards for the watersystem. Tarkett strives to close water loops

[6] European Commission: Critical raw materials for the EU, 2010

[7] In accordance with the Cradle to Cradle® Certification Program Version 3.1

Social aspects

Tarket is member of UNGC and adheres to the ten principle of UNGC, safeguarding Human Rights and striving for continous imrovment of Safety and Labor rights. Tarkett's Communication of progress can be found on https://www.unglobalcompact.org/participation/report/cop/create-and-submit/advanced/428459.

Carpet productions sites comply with the ISO 14001 Environmental Management System and the ISO 9001 Quality Management System.

Social fairness initiatives are not only targeting own operations and employees.To achieve a Cradle to Cradle Gold certification, it is required to also assess potential social risks in the supply-chain. The potential social risk related to the production of raw materials for DESSO AirMaster Gold products is identified as low. More than 90% of all materials are sourced in Europe and none of the tier one raw material suppliers are identified as a high risk supplier.

Production waste

Waste type	Desso AirMaster® Gold Nazca	Desso AirMaster® Gold Tierra	Desso AirMaster® Gold Salina
Non hazardous waste to incineration [kg/m²]	2,52E-04	2,52E-04	2,52E-04
Hazardous waste to incineration [kg/m²]	1,11E-02	1,11E-02	1,11E-02
Non-hazardous waste to incineration in the cement industry [kg/m²]	2,02E-01	2,02E-01	2,02E-01
Non-hazardous waste-water to external treatment [kg/m²]	1,86E-02	1,86E-02	1,86E-02

Packaging

Type	Desso AirMaster® Gold Nazca	Desso AirMaster® Gold Tierra	Desso AirMaster® Gold Salina
Product Packaging Cardboard [kg/m²]	1.09E-01	1.09E-01	1.09E-01
Product Packaging wooden palett [kg/m²]	1.00E-01	1.00E-01	1.00E-01

Delivery and installation

Delivery

The average distribution distance between the factories and the installation site is presented in the following table. The distribution is made by truck.

	Desso AirMaster® Gold Nazca	Desso AirMaster® Gold Tierra	Desso AirMaster® Gold Salina
Average distance of delivery [km]	7.00E+02	7.00E+02	7.00E+02

Installation

Carpet flooring do not use any electric tools for their installation. If a cut is necessary, it could be done with a manual tool.

Waste

During the installation approximately 3% of the flooring is lost as off-cuts. All flooring losses are sent to incineration.

Packaging

50 % of the packaging materials goes to incineration and 50 % goes to landfill except for wooden palett which are recycled.

Use Stage

Reference Service Life (RSL)

For this product, the stated RSL is 1 year. It should be noted, however, that the service life of a carpet flooring may vary depending on the amount and nature of floor traffic and the type and frequency of maintenance. The manufacturer has provided this service life on the basis of his experience of flooring manufacture and supply. This RSL is applicable as long as the product use complies with that defined by ISO 14041 and ISO 10874 in accordance with the product's classification. The service lifetime recommended by Tarkett is 10 years.

Indoor Air Quality

DESSO AirMaster is 8 times more effective at capturing and retaining fine dust than smooth flooring solutions (PM10) and 4 times more effective than standard carpet solutions in capturing and retaining fine dust (PM10).[8]

Based on these test results DESSO AirMaster is certified with a GUI Gold Plus label for:
- Suitability for allergy sufferers because of the ingredients
- High fine dust binding capacity
- Low Volatile Organic Compound (VOC) emission properties

VOC emissions of DESSO AirMaster Gold products are tested and results are much lower than required legally (MVV TB, CDPH TB, M1, etc.) and by voluntary schemes (C2C-gold, CRI-GLP, GUT).

Cleaning and maintenance

The maintenance step concerns the cleaning of the floor. Tarkett has provided the recommended maintenance routine for the product throughout the reference life. Water, detergent and electricity consumption of the cleaning machine are considered in the LCA study:

[8] Based on tests performed by GUI with DESSOAirMaster® versus a standard smooth floor and versus standard structured loop pile carpet (median values).

- Common maintenance : 2 time / week
- Periodical maintenance: 2 time / year

Description	Amount	Unit
Electricity consumption	3.14E-01	kWh/year/m^2
Water consumption	4.00E+00	L/year/m^2
Detergent consumption	9.00E-02	L/year/m^2

Prevention of structural damage

To avoid excessive wear, usage should be restricted to the stated areas of application as outlined by the norm ISO 10874.

End of Life

Tarkett has implemented a take-back and recycling program called ReStart.Via Tarkett's Sales Network and with the help of logistic partners, post-use carpet tiles are collected and distributed to Tarkett's carpet recycling centre in Waalwijk, the Netherlands. DESSO's EcoBase products have been designed for recycling, which allows recovery of yarn and backing materials in a closed-cycle and without loss of quality. 100% of all materials in AirMaster Gold can be recycled.[9] The recycling process[10] for Airmaster Gold is developed by Tarkett and unique in the market.

Despite active stimulation of take-back and recycling by Tarkett, we still ask for the commitment of our customers to ensure that carpet tiles are returned for recycling post-use. If this is not the case, other common European disposal routes for carpets are:

- Incineration in municipal waste incineration plants (MWI).
- Incineration in the cement industry for recovery and reuse of minerals (cement)

To show differences in impact, all three scenarios are calculated and disclosed. The recycling scenario is the Tarkett preferred scenario, the two disposal scenario's are provided as a reference.

Transport

Carpets are recycled in the same factory where they are produced. So, the distance of transport between installation sites and recycling site is the same as for the module A4 (average delivery distance to customer).

For incineration in the MWI-plant (for waste-to-energy) a distance of 70km has been assumed. For co-production in the cement industry the distance is assumed larger and 250km. Those are generic assumptions are commonly applied for all EPDs in the carpet industry.

[9] 74% is recycled in a closed-loop and the remaining 26% as co-production in the cement industry, with small variances per collection.

[10] Recyclability has been verified by Lloyds Register.

	Desso AirMaster® Gold Nazca	Desso AirMaster® Gold Tierra	Desso AirMaster® Gold Salina
Transport distance recycling scenario [km]	7.00E+02	7.00E+02	7.00E+02
Transport distance MWI [km]	7.00E+01	7.00E+01	7.00E+01
Transport distance cement co-production [km]	2,50E+02	2,50E+02	2,50E+02

Waste processing in case of recycling

Basically, the process separates yarn and Ecobase® backing and makes these main material streams available for the next carpet cycle, without loss of value and/or material properties (closed-loop recycling).

A small rest stream (mainly tuftcloth and SBR-compound) cannot be reused yet at the desired quality level. At this moment in time those streams will be considered as fuels and raw material (chalk) for the cement industry, until other outlets will be found.

Waste processing in case of incineration in a municpal waste incineration plant (waste-to energy)

To model emissions from the incineration process generic datasets from ecoinvent are used. The emissions of organic an mineral components are modelled seperatly and depicted in module C3. Disposal of inert combustion residues are allocatesd to module C4.

Waste processing in case of co-production in the cement industry

For co-production in the cement industry, carpet waste needs a pre-treatment (grinding to fluff). Carpet fluff has not reached the “end-of-waste status” as defined by the European Waste Directive. Therefore emissions from combustion are allocated to module C3 of the carpet tile life cycle. In this scenario there are no emissions in module C4. The mineral residues are raw material for cement.

Resource recovery

Recycling scenario

Module D has been considered for this study in order to evaluate the possible environmental benefits obtainable through the re-use of secondary materials in other production cycles. Particularly, the module clearly describes the benefits and the environmental charges deriving from reusable products exiting from the system, such as secondary materials or secondary fuels.

Three outlets have been considered :

- Yarn
- DESSO Ecobase® backing
- Others compounds

PA6 yarn will be sent back to Tarkett’s yarn supplier Aquafil for depolimerization and reuse in new carpet yarns. This post-use material stream can be used for 100% and without quality loss for the production of new carpet yarns.

DESSO EcoBase® backing* is **100% recyclable** in Tarkett's own production process. Post-use material can be directly recovered in Tarkett's production for the same purpose and avoids the production and use of primary material.

A small rest fraction is recycled in the cement industry. The chalk content substitutes primary chalk , which is a raw material for the production of cement. Organic residues substitute primary fuel for processing.

Municipal waste incineration

In this scenario combustion in a combined heat power plant (CHP) is assumed (best case) with an efficiency of 18% for both, electricity and heat. For validation a dataset for average (grey) European electricity has been used.

Co-production in the cement industry

The mineral residues in carpet tiles have been validated as avoidance of primary production. However only to the extent that materials originate form primary flows in module A. Materials that had been classified as recycled materials in module A have been excluded from validation in module D.
The organic content, which functions as secondary fuel in the cement oven, has not been validated. The amount of secondary fuel in the cement idustry is already high and further increase is limited because of caloric proces requirements. Therefore it has been assumed that post-use carpet tiles would rather substitute other secondary than primary fuel.

Interpretation of results

The environmental impact of DESSO EcoBase products should be considered over the whole life cycle and beyond, including all module A-D. DESSO EcoBase consists of a novel recipe, specially designed to enable post-consumer recycling on a high level, that means, for the same purpose and without quality loss. AirMaster Gold products can be recycled for 74%-75% in a closed-loop[11]. The new recipe was introduced in 2011. Because of the relatively long service life-time (10 years), current products are still in their first cycle, meaning that recycled content is not yet available. As a matter of fact, the closed-loop recycling concept will only pay-off from the second cycle onwards. Therefore at this moment in time module D should be considered to show the full potential of this product category.

Although recycling is the prefered end-of-life scenario, the EPD also shows the results for other end-of life scenario's. Compared to incineration in a municipal waste incinertion plant (MWI scenario), **recycling saves per cycle 34% embodied carbon emissions** (GWP), in a 10 years perspective. Which is proof that moving towards closed-loop recycling has a positive effect on the enviroment.

The CO2 footprint of EcoBase-backed tiles with ECONYL yarn **is more than halved** compared to carpet tiles made with virgin raw materials with no provision for recycling.

Recycling EcoBase-backed tiles with ECONYL yarn delivers **up to 84% CO2 savings** compared to incineration.

[11] In addition to the minimum 17% of materials that are recyclable in open-loops.

Environmental performance

Potential environmental impact AirMaster® Gold Nazca

Results for AirMaster Nazca											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Global Warming	kg CO2 eq	6,56E+00	1,13E-01	3,76E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Ozone Depletion	kg CFC-11 eq	3,21E-07	2,11E-08	1,21E-08	MND	2,96E-08	MND	MND	MND	MND	MND
Acidification of soil and water	kg SO2 eq.	2,31E-02	3,58E-04	7,64E-04	MND	1,63E-03	MND	MND	MND	MND	MND
Eutrophication	kg PO4--- eq	3,45E-03	5,88E-05	1,61E-04	MND	8,39E-04	MND	MND	MND	MND	MND
Photochemical ozone creation	kg ethylene	5,97E-03	5,84E-05	2,05E-04	MND	2,08E-04	MND	MND	MND	MND	MND
Depletion of abiotic resources -elements	kg antimony	1,23E-05	3,54E-07	4,01E-07	MND	8,83E-07	MND	MND	MND	MND	MND
Depletion of abiotic resources -fossil	MJ. net CV	1,17E+02	1,71E+00	3,70E+00	MND	2,68E+00	MND	MND	MND	MND	MND

Potential environmental impact AirMaster® Gold Nazca – Recycling

PARAMETER	UNIT	Results for AirMaster Nazca - Recycling at EoL				
		End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-01	8,33E-03	8,46E-01	-2,39E+00
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-08	6,99E-10	2,11E-09	-2,22E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-04	5,03E-05	1,40E-04	-1,20E-02
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-05	1,35E-05	4,70E-05	-1,12E-03
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-05	3,27E-06	1,08E-05	-2,43E-03
Depletion of abiotic resources -elements	kg antimony	0,00E+00	3,54E-07	7,24E-08	2,24E-08	-5,90E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E+00	1,19E-01	1,77E-01	-5,20E+01

Potential environmental impact AirMaster® Gold Nazca – EoL other

PARAMETER	UNIT	Results for AirMaster Nazca - MWI at EoL					Results for AirMaster Nazca - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-02	5,59E+00	1,00E-02	-2,14E+00	0,00E+00	4,07E-02	5,62E+00	0,00E+00	-8,61E-01
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-09	1,04E-08	3,35E-09	-2,37E-07	0,00E+00	7,56E-09	1,33E-08	0,00E+00	-1,04E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-05	6,88E-04	7,47E-05	-8,26E-03	0,00E+00	1,30E-04	8,39E-04	0,00E+00	-6,51E-03
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-06	2,31E-04	1,28E-05	-1,09E-03	0,00E+00	2,15E-05	2,51E-04	0,00E+00	-4,62E-04
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-06	5,32E-05	1,16E-05	-4,95E-04	0,00E+00	2,11E-05	6,08E-05	0,00E+00	-4,27E-04
Depletion of abiotic resources -elements	kg antimony	0,00E+00	3,54E-08	1,10E-07	1,27E-08	-7,12E-07	0,00E+00	1,26E-07	1,23E-07	0,00E+00	-1,97E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E-01	8,72E-01	2,84E-01	-2,68E+01	0,00E+00	6,13E-01	1,18E+00	0,00E+00	-9,79E+00

Use of resources AirMaster® Gold Nazca

Results for AirMaster Nazca											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7
Renewable primary energy excl. RM	MJ. net CV	2,85E+01	2,55E-02	8,62E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Renewable primary energy used as RM	MJ. net CV	3,57E+00	0,00E+00	-1,47E+00	MND	2,96E-08	MND	MND	MND	MND	MND
Total renewable primary energy	MJ. net CV	3,21E+01	2,55E-02	-6,11E-01	MND	1,63E-03	MND	MND	MND	MND	MND
Non renewable primary energy excl. RM	MJ. net CV	8,37E+01	1,75E+00	2,73E+00	MND	8,39E-04	MND	MND	MND	MND	MND
Non renewable primary energy used as RM	MJ. net CV	7,10E+01	0,00E+00	2,13E+00	MND	2,08E-04	MND	MND	MND	MND	MND
Total non renewable primary energy	MJ. net CV	1,55E+02	1,75E+00	4,86E+00	MND	8,83E-07	MND	MND	MND	MND	MND
Use of secondary material	kg	3,45E+00	0,00E+00	1,03E-01	MND	2,68E+00	MND	MND	MND	MND	MND
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	1,39E+00	MND	MND	MND	MND	MND
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	3,43E+01	MND	MND	MND	MND	MND
Net use of fresh water	m3	9,06E-02	3,29E-04	3,02E-03	MND	9,03E-01	MND	MND	MND	MND	MND

Use of resources AirMaster® Gold Nazca - Recycling

Results for AirMaster Nazca - Recycling at EoL						
PARAMETER	UNIT	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,41E+00
Renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,41E+00
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-3,20E+01
Non renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,33E+01
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-5,53E+01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,77E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-04	1,33E-04	1,22E-03	-1,72E-02

Use of resources AirMaster® Gold Nazca – EoL other

		Results for AirMaster Nazca - MWI at EoL					Results for AirMaster Nazca - Cement at EoL				
PARAMETER	UNIT	End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-03	2,96E-02	7,39E-03	-4,83E+00	0,00E+00	9,12E-03	1,23E-01	0,00E+00	-3,81E-01
Renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-03	2,96E-02	7,39E-03	-4,83E+00	0,00E+00	9,12E-03	1,23E-01	0,00E+00	-3,81E-01
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E-01	9,03E-01	2,89E-01	-4,11E+01	0,00E+00	6,27E-01	1,49E+00	0,00E+00	-1,05E+01
Non renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E-01	9,03E-01	2,89E-01	-4,11E+01	0,00E+00	6,27E-01	1,49E+00	0,00E+00	-1,05E+01
Use of secondary material	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	0,00E+00
Use of renewable secondary fuels	MJ. net CV	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	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	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	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-05	6,01E-03	3,19E-04	-2,42E-02	0,00E+00	1,18E-04	6,48E-03	0,00E+00	-3,85E-03

Waste production and output flows AirMaster® Gold Nazca

Results for AirMaster Nazca											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Hazardous waste disposed	kg	5,70E-01	1,03E-03	2,13E-02	MND	1,82E-02	MND	MND	MND	MND	MND
Non hazardous waste disposed	kg	4,84E+00	9,14E-02	2,65E-01	MND	1,08E-01	MND	MND	MND	MND	MND
Radioactive waste disposed	kg	3,43E-04	1,20E-05	1,17E-05	MND	2,38E-05	MND	MND	MND	MND	MND
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for recycling	kg	3,74E-02	0,00E+00	1,01E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for energy recovery	kg	9,54E-02	0,00E+00	1,35E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND

Waste production and output flows AirMaster® Gold Nazca – Recycling

PARAMETER	UNIT	Results for AirMaster Nazca - Recycling at EoL				
		End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-03	4,78E-04	1,89E-02	-5,08E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-02	5,21E-03	4,81E-03	-8,74E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-05	1,20E-07	4,80E-07	-1,08E-04
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	3,26E+00	7,80E-01	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	3,55E-01	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01

Waste production and output flows AirMaster® Gold Nazca- EoL other

PARAMETER	UNIT	Results for AirMaster Nazca - MWI at EoL					Results for AirMaster Nazca - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-04	9,30E-02	1,47E-04	-4,86E-01	0,00E+00	3,70E-04	9,36E-02	0,00E+00	-4,86E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-03	2,36E-02	1,89E+00	-3,42E-01	0,00E+00	3,26E-02	3,46E-02	0,00E+00	-3,42E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-06	2,36E-06	1,88E-06	-3,88E-05	0,00E+00	4,31E-06	6,49E-06	0,00E+00	-3,88E-05
Components for re-use	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	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,80E-01	0,00E+00	0,00E+00	7,80E-01	0,00E+00	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	1,75E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,75E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,83E-01

MND: Module not declared

Potential environmental impact AirMaster® Gold Salina

Results for AirMaster Salina											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Global Warming	kg CO2 eq	6,84E+00	1,13E-01	3,91E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Ozone Depletion	kg CFC-11 eq	3,26E-07	2,11E-08	1,23E-08	MND	2,96E-08	MND	MND	MND	MND	MND
Acidification of soil and water	kg SO2 eq.	2,38E-02	3,58E-04	7,89E-04	MND	1,63E-03	MND	MND	MND	MND	MND
Eutrophication	kg PO4--- eq	3,64E-03	5,88E-05	1,68E-04	MND	8,39E-04	MND	MND	MND	MND	MND
Photochemical ozone creation	kg ethylene	6,04E-03	5,84E-05	2,07E-04	MND	2,08E-04	MND	MND	MND	MND	MND
Depletion of abiotic resources -elements	kg antimony	1,24E-05	3,54E-07	4,07E-07	MND	8,83E-07	MND	MND	MND	MND	MND
Depletion of abiotic resources -fossil	MJ. net CV	1,20E+02	1,71E+00	3,80E+00	MND	2,68E+00	MND	MND	MND	MND	MND

Potential environmental impact AirMaster® Gold Salina – Recycling

Results for AirMaster Salina -Recycling at EoL						
PARAMETER	UNIT	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-01	8,33E-03	8,46E-01	-2,41E+00
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-08	6,99E-10	2,11E-09	-2,26E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-04	5,03E-05	1,40E-04	-1,20E-02
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-05	1,35E-05	4,70E-05	-1,13E-03
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-05	3,27E-06	1,08E-05	-2,44E-03
Depletion of abiotic resources -elements	kg antimony	0,00E+00	3,54E-07	7,24E-08	2,24E-08	-5,95E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E+00	1,19E-01	1,77E-01	-5,23E+01

Potential environmental impact AirMaster® Gold Salina – EoL other

PARAMETER	UNIT	Results for AirMaster Salina - MWI at EoL					Results for AirMaster Salina - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-02	5,81E+00	1,00E-02	-2,24E+00	0,00E+00	4,07E-02	5,83E+00	0,00E+00	-8,64E-01
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-09	1,09E-08	3,35E-09	-2,47E-07	0,00E+00	7,56E-09	1,39E-08	0,00E+00	-1,04E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-05	7,23E-04	7,47E-05	-8,63E-03	0,00E+00	1,30E-04	8,77E-04	0,00E+00	-6,52E-03
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-06	2,43E-04	1,28E-05	-1,14E-03	0,00E+00	2,15E-05	2,64E-04	0,00E+00	-4,63E-04
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-06	5,60E-05	1,16E-05	-5,17E-04	0,00E+00	2,11E-05	6,37E-05	0,00E+00	-4,28E-04
Depletion of abiotic resources - elements	kg antimony	0,00E+00	3,54E-08	1,16E-07	1,27E-08	-7,43E-07	0,00E+00	1,26E-07	1,29E-07	0,00E+00	-1,97E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E-01	9,17E-01	2,84E-01	-2,79E+01	0,00E+00	6,13E-01	1,23E+00	0,00E+00	-9,83E+00

Use of resources AirMaster® Gold Salina

Results for AirMaster Salina											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7
Renewable primary energy excl. RM	MJ. net CV	3,13E+01	2,55E-02	9,45E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Renewable primary energy used as RM	MJ. net CV	3,56E+00	0,00E+00	-1,47E+00	MND	2,96E-08	MND	MND	MND	MND	MND
Total renewable primary energy	MJ. net CV	3,48E+01	2,55E-02	-5,28E-01	MND	1,63E-03	MND	MND	MND	MND	MND
Non renewable primary energy excl. RM	MJ. net CV	8,72E+01	1,75E+00	2,84E+00	MND	8,39E-04	MND	MND	MND	MND	MND
Non renewable primary energy used as RM	MJ. net CV	7,43E+01	0,00E+00	2,23E+00	MND	2,08E-04	MND	MND	MND	MND	MND
Total non renewable primary energy	MJ. net CV	1,61E+02	1,75E+00	5,07E+00	MND	8,83E-07	MND	MND	MND	MND	MND
Use of secondary material	kg	3,62E+00	0,00E+00	1,09E-01	MND	2,68E+00	MND	MND	MND	MND	MND
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	1,39E+00	MND	MND	MND	MND	MND
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	3,43E+01	MND	MND	MND	MND	MND
Net use of fresh water	m3	9,72E-02	3,29E-04	3,23E-03	MND	9,03E-01	MND	MND	MND	MND	MND

Use of resources AirMaster® Gold Salina - Recycling

Results for AirMaster Salina -Recycling at EoL						
PARAMETER	UNIT	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,42E+00
Renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,42E+00
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-3,23E+01
Non renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,33E+01
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-5,56E+01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,77E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-04	1,33E-04	1,22E-03	-1,73E-02

Use of resources AirMaster® Gold Salina – EoL other

		Results for AirMaster Salina - MWI at EoL					Results for AirMaster Salina - Cement at EoL				
PARAMETER	UNIT	End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-03	3,11E-02	7,39E-03	-5,04E+00	0,00E+00	9,12E-03	1,26E-01	0,00E+00	-3,87E-01
Renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-03	3,11E-02	7,39E-03	-5,04E+00	0,00E+00	9,12E-03	1,26E-01	0,00E+00	-3,87E-01
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E-01	9,49E-01	2,89E-01	-4,29E+01	0,00E+00	6,27E-01	1,55E+00	0,00E+00	-1,06E+01
Non renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E-01	9,49E-01	2,89E-01	-4,29E+01	0,00E+00	6,27E-01	1,55E+00	0,00E+00	-1,06E+01
Use of secondary material	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	0,00E+00
Use of renewable secondary fuels	MJ. net CV	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	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	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	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-05	6,32E-03	3,19E-04	-2,53E-02	0,00E+00	9,12E-03	1,26E-01	0,00E+00	-3,87E-01

Waste production and output flows AirMaster® Gold Salina

Results for AirMaster Salina											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Hazardous waste disposed	kg	5,76E-01	1,03E-03	2,16E-02	MND	1,82E-02	MND	MND	MND	MND	MND
Non hazardous waste disposed	kg	5,25E+00	9,14E-02	3,00E-01	MND	1,08E-01	MND	MND	MND	MND	MND
Radioactive waste disposed	kg	3,67E-04	1,20E-05	1,25E-05	MND	2,38E-05	MND	MND	MND	MND	MND
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for recycling	kg	3,67E-02	0,00E+00	1,01E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for energy recovery	kg	9,79E-02	0,00E+00	1,38E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND

Waste production and output flows AirMaster® Gold Salina – Recycling

PARAMETER	UNIT	Results for AirMaster Salina -Recycling at EoL				
		End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-03	4,78E-04	1,89E-02	-5,08E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-02	5,21E-03	4,81E-03	-8,89E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-05	1,20E-07	4,80E-07	-1,10E-04
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	3,35E+00	7,80E-01	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	3,55E-01	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01

Waste production and output flows AirMaster® Gold Salina- EoL other

PARAMETER	UNIT	Results for AirMaster Salina - MWI at EoL					Results for AirMaster Salina - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-04	9,78E-02	1,47E-04	-4,86E-01	0,00E+00	3,70E-04	9,84E-02	0,00E+00	-4,86E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-03	2,49E-02	1,89E+00	-3,43E-01	0,00E+00	3,26E-02	3,60E-02	0,00E+00	-3,43E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-06	2,48E-06	1,88E-06	-3,91E-05	0,00E+00	4,31E-06	6,69E-06	0,00E+00	-3,91E-05
Components for re-use	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	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,80E-01	0,00E+00	0,00E+00	7,80E-01	0,00E+00	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	1,84E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,84E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,08E-01

Potential environmental impact AirMaster® Gold Tierra

Results for AirMaster Tierra											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Global Warming	kg CO2 eq	6,95E+00	1,13E-01	3,97E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Ozone Depletion	kg CFC-11 eq	3,28E-07	2,11E-08	1,23E-08	MND	2,96E-08	MND	MND	MND	MND	MND
Acidification of soil and water	kg SO2 eq.	2,41E-02	3,58E-04	7,97E-04	MND	1,63E-03	MND	MND	MND	MND	MND
Eutrophication	kg PO4--- eq	3,71E-03	5,88E-05	1,70E-04	MND	8,39E-04	MND	MND	MND	MND	MND
Photochemical ozone creation	kg ethylene	6,07E-03	5,84E-05	2,08E-04	MND	2,08E-04	MND	MND	MND	MND	MND
Depletion of abiotic resources -elements	kg antimony	1,25E-05	3,54E-07	4,09E-07	MND	8,83E-07	MND	MND	MND	MND	MND
Depletion of abiotic resources -fossil	MJ. net CV	1,21E+02	1,71E+00	3,83E+00	MND	2,68E+00	MND	MND	MND	MND	MND

Potential environmental impact AirMaster® Gold Tierra – Recycling

Results for AirMaster Tierra -Recycling at EoL						
PARAMETER	UNIT	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-01	8,33E-03	8,46E-01	-2,42E+00
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-08	6,99E-10	2,11E-09	-2,27E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-04	5,03E-05	1,40E-04	-1,21E-02
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-05	1,35E-05	4,70E-05	-1,13E-03
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-05	3,27E-06	1,08E-05	-2,45E-03
Depletion of abiotic resources -elements	kg antimony	0,00E+00	3,54E-07	7,24E-08	2,24E-08	-5,98E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E+00	1,19E-01	1,77E-01	-5,24E+01

Potential environmental impact AirMaster® Gold Tierra – EoL other

PARAMETER	UNIT	Results for AirMaster Tierra - MWI at EoL					Results for AirMaster Tierra - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse – Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Global Warming	kg CO2 eq	0,00E+00	1,14E-02	5,89E+00	1,41E-02	-2,27E+00	0,00E+00	4,07E-02	5,92E+00	0,00E+00	-8,65E-01
Ozone Depletion	kg CFC-11 eq	0,00E+00	2,12E-09	1,11E-08	4,72E-09	-2,51E-07	0,00E+00	7,56E-09	1,41E-08	0,00E+00	-1,05E-07
Acidification of soil and water	kg SO2 eq.	0,00E+00	3,63E-05	7,37E-04	1,05E-04	-8,77E-03	0,00E+00	1,30E-04	8,93E-04	0,00E+00	-6,52E-03
Eutrophication	kg PO4--- eq	0,00E+00	6,02E-06	2,48E-04	1,81E-05	-1,16E-03	0,00E+00	2,15E-05	2,68E-04	0,00E+00	-4,64E-04
Photochemical ozone creation	kg ethylene	0,00E+00	5,90E-06	5,70E-05	1,64E-05	-5,26E-04	0,00E+00	2,11E-05	6,49E-05	0,00E+00	-4,28E-04
Depletion of abiotic resources -elements	kg antimony	0,00E+00	3,54E-08	1,18E-07	1,79E-08	-7,55E-07	0,00E+00	1,26E-07	1,31E-07	0,00E+00	-1,97E-06
Depletion of abiotic resources -fossil	MJ. net CV	0,00E+00	1,72E-01	9,34E-01	4,01E-01	-2,84E+01	0,00E+00	6,13E-01	1,25E+00	0,00E+00	-9,84E+00

Use of resources AirMaster® Gold Tierra

Results for AirMaster Tierra											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2.	B3	B4	B5	B6	B7
Renewable primary energy excl. RM	MJ. net CV	3,23E+01	2,55E-02	9,76E-01	MND	3,85E-01	MND	MND	MND	MND	MND
Renewable primary energy used as RM	MJ. net CV	3,56E+00	0,00E+00	-1,47E+00	MND	2,96E-08	MND	MND	MND	MND	MND
Total renewable primary energy	MJ. net CV	3,59E+01	2,55E-02	-4,97E-01	MND	1,63E-03	MND	MND	MND	MND	MND
Non renewable primary energy excl. RM	MJ. net CV	8,85E+01	1,75E+00	2,87E+00	MND	8,39E-04	MND	MND	MND	MND	MND
Non renewable primary energy used as RM	MJ. net CV	7,56E+01	0,00E+00	2,27E+00	MND	2,08E-04	MND	MND	MND	MND	MND
Total non renewable primary energy	MJ. net CV	1,64E+02	1,75E+00	5,14E+00	MND	8,83E-07	MND	MND	MND	MND	MND
Use of secondary material	kg	3,69E+00	0,00E+00	1,11E-01	MND	2,68E+00	MND	MND	MND	MND	MND
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	1,39E+00	MND	MND	MND	MND	MND
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	MND	3,43E+01	MND	MND	MND	MND	MND
Net use of fresh water	m3	9,97E-02	3,29E-04	3,31E-03	MND	9,03E-01	MND	MND	MND	MND	MND

Use of resources AirMaster® Gold Tierra - Recycling

Results for AirMaster Salina -Recycling at EoL						
PARAMETER	UNIT	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,42E+00
Renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-02	5,32E-01	6,03E-03	-1,42E+00
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-3,25E+01
Non renewable primary energy used as RM	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-2,33E+01
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E+00	1,23E-01	1,84E-01	-5,58E+01
Use of secondary material	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-1,77E+00
Use of renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-04	1,33E-04	1,22E-03	-1,73E-02

Use of resources AirMaster® Gold Tierra – EoL other

		Results for AirMaster Tierra - MWI at EoL					Results for AirMaster Tierra - Cement at EoL				
PARAMETER	UNIT	End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2.	C3	C4	D	C1	C2.	C3	C4	D
Renewable primary energy excl. RM	MJ. net CV	0,00E+00	2,55E-03	3,17E-02	1,04E-02	-5,12E+00	0,00E+00	9,12E-03	1,28E-01	0,00E+00	-3,89E-01
Renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total renewable primary energy	MJ. net CV	0,00E+00	2,55E-03	3,17E-02	1,04E-02	-5,12E+00	0,00E+00	9,12E-03	1,28E-01	0,00E+00	-3,89E-01
Non renewable primary energy excl. RM	MJ. net CV	0,00E+00	1,76E-01	9,67E-01	4,07E-01	-4,36E+01	0,00E+00	6,27E-01	1,57E+00	0,00E+00	-1,06E+01
Non renewable primary energy used as RM	MJ. net CV	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	0,00E+00
Total non renewable primary energy	MJ. net CV	0,00E+00	1,76E-01	9,67E-01	4,07E-01	-4,36E+01	0,00E+00	6,27E-01	1,57E+00	0,00E+00	-1,06E+01
Use of secondary material	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	0,00E+00
Use of renewable secondary fuels	MJ. net CV	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	0,00E+00
Use of non renewable secondary fuels	MJ. net CV	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	0,00E+00
Net use of fresh water	m3	0,00E+00	3,30E-05	6,45E-03	4,50E-04	-2,57E-02	0,00E+00	1,18E-04	6,93E-03	0,00E+00	-3,89E-03

Waste production and output flows AirMaster® Gold Tierra

Results for AirMaster Tierra											
PARAMETER	UNIT	Product stage	Construction stage		Use stage						
		Total Production	Transport	Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use
		A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7
Hazardous waste disposed	kg	5,79E-01	1,03E-03	2,18E-02	MND	1,82E-02	MND	MND	MND	MND	MND
Non hazardous waste disposed	kg	5,41E+00	9,14E-02	2,80E-01	MND	1,08E-01	MND	MND	MND	MND	MND
Radioactive waste disposed	kg	3,76E-04	1,20E-05	1,27E-05	MND	2,38E-05	MND	MND	MND	MND	MND
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for recycling	kg	3,63E-02	0,00E+00	1,01E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Materials for energy recovery	kg	9,87E-02	0,00E+00	1,39E-01	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	MND	MND	MND	MND	MND

Waste production and output flows AirMaster® Gold Tierra – Recycling

PARAMETER	UNIT	Results for AirMaster Tierra -Recycling at EoL				
		End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-03	4,78E-04	1,89E-02	-5,08E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-02	5,21E-03	4,81E-03	-8,95E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-05	1,20E-07	4,80E-07	-1,11E-04
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	3,35E+00	7,80E-01	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	3,55E-01	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01

Waste production and output flows AirMaster® Gold Tierra- EoL other

PARAMETER	UNIT	Results for AirMaster Tierra - MWI at EoL					Results for AirMaster Tierra - Cement at EoL				
		End of life stage				Resource recovery stage	End of life stage				Resource recovery stage
		De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential	De-construction	Transport	Waste processing	Disposal	Reuse Recycle Potential
		C1	C2	C3	C4	D	C1	C2	C3	C4	D
Hazardous waste disposed	kg	0,00E+00	1,04E-04	9,97E-02	2,07E-04	-4,86E-01	0,00E+00	3,70E-04	1,00E-01	0,00E+00	-4,86E-01
Non hazardous waste disposed	kg	0,00E+00	9,14E-03	2,53E-02	2,67E+00	-3,43E-01	0,00E+00	3,26E-02	3,66E-02	0,00E+00	-3,43E-01
Radioactive waste disposed	kg	0,00E+00	1,21E-06	2,53E-06	2,66E-06	-3,92E-05	0,00E+00	4,31E-06	6,78E-06	0,00E+00	-3,92E-05
Components for re-use	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	0,00E+00
Materials for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,80E-01	0,00E+00	0,00E+00	7,80E-01	0,00E+00	7,80E-01
Materials for energy recovery	kg	0,00E+00	0,00E+00	1,87E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,87E+00	0,00E+00	0,00E+00
Exported energy (electricity)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01
Exported energy (steam)	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,18E-01

Programme-related information and verification

The EPD owner has the sole ownership liability and responsibility for the flooring EPD. EPDs within the same product category but from different programmes may not be comparable. EPDs of floor products may not be comparable if they do not comply with EN 15804 and 16810.

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com
EPD registration number:	S-P-01506
ECO EPD Ref. number:	00001047
Published:	2019-11-22
Valid until:	2024-11-22
Product Category Rules:	PCR 2012:01 version 2.3 and Sub-PCR-F Resilient. textile and laminate floor coverings (EN 16810)
Product group classification:	UN CPC APE/NAF - 2223Z
Reference year for data:	2017
Geographical scope:	Europe

CEN standard EN 15804 and EN 16810 serve as the Core Product Category Rules (PCR)
Product category rules (PCR): EN 15804 and EN 16810
Independent third-party verification of the declaration and data. according to ISO 14025:2006: ☐ EPD process certification ■ EPD verification
Third party verifier: Damien PRUNEL. BUREAU VERITAS LCIE
Procedure for follow-up of data during EPD validity involves third party verifier: ☒ Yes ☐ No

References

General Programme Instructions of the International EPD® System. Version 3.0.

PCR 2012:01 version 2.3

Contact information:

	Programme operator: EPD International AB info@environdec.com		
	Author of the Life Cycle Assessment TARKETT B.V. Taxandriaweg 15 5142PA Waawijk	Tel Mail Web	+31 (0)416-685497 nicole Schaffroth@tarkett.com www.tarkett,com
	Owner of the Declaration TARKETT Tarkett La Défense 1 Terrasse Bellini 92 400 Paris	Tel Mail Web	+33 (0)1 41 20 40 74 axel.roy@tarkett.com www.tarkett.com
	Reviewer BUREAU VERITAS LCIE 170 rue de Chatagnon ZI Centr'alp 38 430 Moirans - FRANCE	Tel Mail Web	+33 (0)4 76 07 36 42 damien.prunel@fr.bureauveritas.com www.codde.fr

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