caesarstone®

Environmental Product Declaration

EPD®
THE INTERNATIONAL EPD® SYSTEM

Environmental Product Declaration

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

Product:
Metropolitan collection models:
4044, 4023, 4043, 4046, 4735

Functional Unit:
One 4044 Airy Concrete surface, over one lifetime of 75 years

Product Category Rule (PCR):
Construction products 2019:14 V1.2.4, CPCR 003 Concrete and concrete elements CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

EPD Number and Period of Validity:
S-P-11154
EPD valid 31/10/2023 through 31/10/2028

The International EPD® System, www.environdec.com
Programme Operator:
EPD International AB

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

About EPD Certification

Programme information

Programme
The International EPD® System

Address
EPD International AB
Box 210 60, SE-100 31 Stockholm
Sweden

Website: www.environdec.com

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Accountabilities for PCR, LCA and independent, third-party verification

Product Category Rules (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

PCR – Construction products 2019:14 V1.2.4, CPCR 003 Concrete and concrete elements

Third-party verification

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

Third-party verifier Epsten Group, Inc.

Approved by: The International EPD® System

Life Cycle Assessment (LCA)

LCA accountability: Sher Consulting Services, Hadar Oryan

About Caesarstone

Since 1987, Caesarstone has crafted countertops for millions of homes worldwide. We consider it a privilege to be part of the daily life of families in over 50 countries, and with a legacy of leadership for over 35 years, we stand proudly as pioneers in our industry

Yet, much has changed since we were established in 1987. Kitchens have transformed, and there is a deepened awareness and concern for the natural environment, material resources, and climate change. As a trusted authority in the industry, we continue to lead the way in embracing these changes through our customer-centric approach.

As part of our ongoing commitment to sustainability and the safety of our customers and business partners, we have made significant strides in research and development, driving the evolution of kitchen countertop to create the next generation of surfaces.

We have undertaken a strategic shift to expand our product portfolio to include a range of innovative materials and surfaces that support our long-term growth and sustainable strategy. We have implemented a series of initiatives, innovations, and commitments to address the demands of an ever-evolving, sustainable world,In 2023, we instituted a global restructuring plan, including the closure of the Sdot Yam production facility in Israel - our first manufacturing site, due to operational efficiency and environmental impact reasons. These actions help us to further focus on operational excellence, cost reduction, and improved working capital management.

As a trusted leader in the industry, we are taking the next steps to create new methods and standards to accomplish our business and sustainability vision. We are focused on product innovation, environmental performance, striving for end-to-end safety throughout the entire product lifestyle, and creating a culture of governance that aims to meet the highest business standards. All of this is accomplished through our community of employees and partners who belive in the human capacity to create something new and extraordinary.

> " We are proud of our vision to bring the magic of the earth's raw materials into people's homes, with our surfaces becoming the bedrock of everyday life for people around the world. "

Owner of the EPD	Caesarstone Ltd.
Contact	Gili Harpaz, ESG leader, Caesarstone
Name and location of production site(s)	Caesarstone Bar-Lev, Israel Facility

Global Reach

+50

countries

Production Sites

3

Production sites in Israel, U.S and India

Strong Growth Platform

~$691M

Revenues in fiscal 2022 (Growth of 7.3% –10.8% on CCB– vs. 2021)

EBITDA

~52M

Adj. EBITDA in 2022

+100

Models of quartz and porcelain

Our Stock

CSTE

Our stocks is traded on NASDAQ

Environmental Commitment

We are committed to protecting and sustaining the environment, and we strive to conduct our business in a manner that reduces our impact on the planet and ecosystems where we operate. We are committed to resource efficiency across our production processes, with a focus on materials use, energy, water, and waste.

We are committed to:

- Increasing the recycled material usage in our products
- Expanding the use of renewable energy sources
- Reducing our carbon footprint
- Reducing our water usage
- Reducing our waste

We have established specific guidelines and goals for each of these commitments and are working carefully to meet our targets – a process that demands daily diligence and a collective commitment by all Caesarstone employees to implement our sustainability vision into practice.

> "We are committed to resource efficiency across our production processes."

Our activities include:

Product Quality

We invest significant resources in research and product development to support our commitment to use quality materials that enable us to create products that are high quality, safe, and meet the highest standards of performance.

Recycled Content

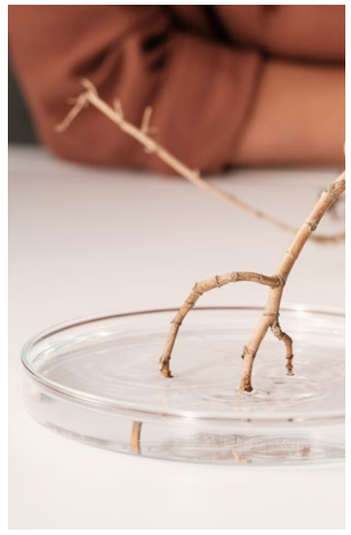
We have developed innovative technology that combines unique minerals with recycled materials, allowing us to increase the use of recycled material in our products. By the end of 2023, 30% of our Mineral portfolio will contain up to 40% recycled materials, and will contain up to 50% recycled materials by 2025.

Energy Consumption

We have implemented a range of energy efficiency measure across our production facilities, including the installation of LED devices, the introduction of electric powered forklifts, and installation of a heat recovery system. These efforts have contributed to a 7% reduction in our energy consumption, with a goal of 10% reduction by 2025.

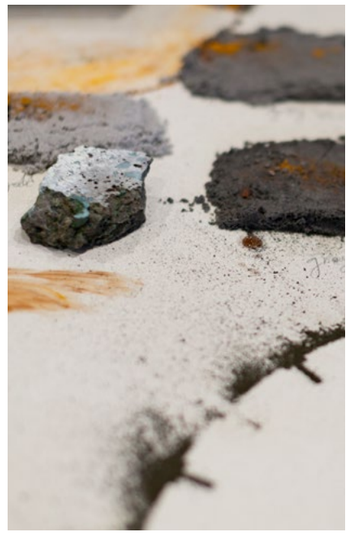
Greenhouse Gas Emissions

We are committed to reducing our carbon footprint by 20% by 2025. We have a carbon reduction plan for each production facility that focuses on improving equipment efficiency, reducing our energy consumption, and expanding our use of renewable energy. We are committed to 100% renewable energy at our Israel facility by 2026 and our Lioli facility by 2030.



Water

All of our production sites have an extensive water recycling system in place in the polishing area, which treats the water for reuse in the polishing process. We have achieved zero water discharge at our facility in Israel and at the Lioli facility, and are committed to 100% water recycled at all production sites by 2024.



Waste

We are committed to reduce, reuse, and recycle our general waste and we aim for zero landfill waste at all production sites by 2030. Through our waste reduction efforts, we have realized a 14% increase in recycling, a 12% decrease in overall hazardous waste, and a 10% decrease in total waste per ton of product produced in 2022 compared to the previous year.

Sustainable Development Goals

In recognition of our role as a global company, we are committed to working towards the Sustainable Development Goals (SDGs), as defined by the United Nations. These global goals were established in 2015 as part of the 2030 Agenda for sustainable development, and are designed to achieve a better and more sustainable future for all. The 17 SDGs cover the world's most pressing social, environmental, health, and economic issues, with specific targets for each.

Caesarstone has identified the following SDG goals that are most significant and impactful for the company and has implemented a range of policies and actions to work towards these goals:

Ensure healthy lives and promote well-being for all at all ages

We work to ensure a healthy workforce and have created global standards and a training program to ensure the health and safety of our employees, suppliers, and partners. Caesarstone products are certified by GREENGUARD, maintaining stringent standards for air emissions, and our products comply with the HPD Open Standard and the NSF51 standard.

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

We are committed to providing quality, safe local jobs at our locations around the world, and we continue to seek additional growth opportunities. We are committed to recognizing diversity in all its forms and we have clear policies in place banning all forms of discrimination. To improve global resource efficiency in consumption and production, we have incorporated recycled raw materials into a range of our models.

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

We are committed to growing our R&D team and investing in research that will enable us to upgrade the technological capabilities of our facilities with an emphasis on sustainability, including reducing our impact on climate change, increasing our use of recycled materials, and developing closed-loop materials and products.

Ensure sustainable consumption and production patterns

Our surfaces are long-lasting and durable, delivering improved lifecycle costs and investment value, with a lifetime warranty. Our products require minimal maintenance and a reduced need for sealants, cleaning materials, or detergents. Our facilities have environmental and quality management certifications, including ISO 14001, ISO 9001, and NSF certification for public health and safety, and we are committed to transparency and provide detailed product information on our product labeling and company website.

Take urgent action to combat climate change and its impacts

We understand the importance of energy efficiency and encourage the transformation to renewable energy as part of our efforts to reduce our impact on climate change. We have a continuous improvement process plan in place to meet our energy and emissions reduction goals. We provide information related to our environmental performance to our employees, stakeholders, and customers through our ESG report and the company website.

Main Accreditations

Caesarstone is ISO 14001 certified, a global standard for environmental protection; ISO 9001 certified, a quality management standard); NSF certification for public health and safety; and has been awarded the respected Greenguard.

ISO 14001: the international standard for establishing an environmental management system to guide working towards meeting environmental goals; monitoring compliance activities; investing in tools for enhancing a quality environment; employee and supplier training; health and safety procedures; and establishing efficient production processes.

Caesarstone is certified with the Environmental Management System in accordance with ISO 14001.
Link to website

GREENGUARD GOLD: Caesarstone surfaces comply with the GREENGUARD GOLD standard (formerly known as GREENGUARD Children & Schools Certification), which evaluates the sensitive nature of school populations combined with the unique building characteristics found in schools and presents the most rigorous product emissions criteria to date.
Link to website

GREENGUARD: Caesarstone surfaces comply with GREENGUARD certification, which verifies that Caesarstone products meet the most stringent indoor air emission standards.
Link to website

HPD: The Health Product Declaration (HPD)® Open Standard* requires full disclosure of potential chemicals of concern in products by comparing product ingredients to a set of priority hazard lists based on the GreenScreen for Safer Chemicals and additional lists from other government agencies. In 2021, Caesarstone updated its HPD to align with the new HPD v2.3 standard. The HPD covers Caesarstone surfaces.
Link to website

Scientific Certification Systems (SCS): Certified for recycled content. Some of our models are made from pre-consumer recycled raw materials, such as mirror and glass or high-quality reclaimed post-production waste from the fabrication process.
Link to website

NSF51: The International Health and Safety Foundation sanitary standard ensures our working surfaces are safe for use in all food environments. Caesarstone's non-porous surfaces inhibit the growth of mildew and bacteria, thus creating a hygienic surface.
Link to website

Mindful Materials: Caesarstone products are found in the Mindful Materials library, a platform that enables the building industry to obtain information concerning statements and certifications regarding quality and environmental aspects of products.
Link to website

LEED: Developed by the United States Green Building Council (USGBC), LEED Leadership in Energy and Environmental Design is an American accredited certification program for the design, construction, and operation of high-performance green buildings. We are a member of USGBC, and Caesarstone's products can contribute to LEED v3 and LEED v4 projects.

Select Caesarstone models can contribute to the LEED Material & Resources credit, and can be included in the calculation for total recycled content used in a project. Our models also contributes to the Building Product Disclosure and Optimization – Material Ingredients credit, as we have published a Health Product Declaration (HPD) that covers all variations of Caesarstone surfaces.

More information on how Caesarstone contributes to LEED credits can be found here.
Link to Leed website

Nordic Ecolabel: Caesarstone's models are listed in the Building Materials Database for the Nordic Ecolabel.
Link to website

European Food Contact Materials regulations: The European Union has adopted wide-ranging regulation regarding materials that come into contact with food products (Food Contact Materials; FCMs). Caesarstone products abide by the two leading regulations: Regulation (EC) No 1935/2004 and Regulation (EC) No 2023/ 2006 on Good Manufacturing Practices.*

*This is an independent statement based on assessments by Intertek Consumer Goods GmbH, an internationally recognized testing body, in compliance with the regulation's criteria.

Link to website

Declare: Our ingredients are clearly listed on Declare Labels that are verified and approved by an external third-party, for full transparency you can trust about what's exactly inside the majority of our products, which are 100% fit for use in Living Building Challenge (LBC) projects, LEED buildings, and International Living Future Institute (ILFI) initiatives.
Link to website

Red List Declaration: Caesarstone publishes a Red List declaration, self-certifying that none of the materials from the Red List, as detailed on the International Living Future Institute website, is intentionally added to a specific list of Caesarstone models.
Link to website

Product Information

Programme Information

Product name	Caesarstone surface, Metropolitan collection, representing models: 4044, 4023, 4043, 4046, 4735
Product identification	Caesarstone surface, Metropolitan collection, jumbo size
Product description	A Caesarstone surface, with the service life of 75 years.
UN CPC code	The CPC Code 375 is described as Articles of concrete, cement and plaster
Geographical scope	A1+A2 (raw material production and transport) includes countries: Turkey, Spain, Portugal, China, England and Israel. The manufacturing A3, occurs in the north of Israel, Bar Lev facility. Customer use is modelled to include - Australia, USA, other areas (Rest of the world), Israel, UK, Canada, South East Asia. Module C of the product's performance been modelled to represent end of life in countries seen in module B.

* Environmental Product Declaration in accordance with ISO 14025 and EN 15804"
EPD of construction products may not be comparable if they do not comply with EN 15804
The EPD is a specific EPD, studying 4044 Metropolitan model, and representing four other Metropolitan models: 4023, 4043,4046, 4735

4023 Topus Concrete

Life Cycle Assessment Information

Functional Unit

The study Functional Unit is one 4044 surface, over one lifetime . A single surface is professionally referred to as a slab and will be therefore mentioned as a slab in this report. A slab life cycle includes 75 years of use, assuming the product would be used as a countertop in home kitchens, and bathrooms, and as the life cycle of the slab, is independent of the life of the building. The model belongs to the Metropolitan collection, and is a "jumbo" size, with a selected 20 mm thickness. Below are the dimensions and materials composing the product.

Dimensions

Length	3.34 Meter
Width	1.64 Meter
Thickness	20 Millimeter
Finalized Production weight	249 KG

The 4044 surface was chosen as the researched model to represent a number of models from Caesarstone's Metropolitan collection. The represented model include model numbers: 4023, 4043,4046, 4735. The models are very high in resemblance of raw material and production processes. All models have less than 10% variance in GWP from the representing 4044 model.

The scenarios included are currently in use and are representative for one of the most probable alternatives. Regarding 4044 model as a representing model for another four models, additional declaration of representative mixes for the relevant region is permissable.

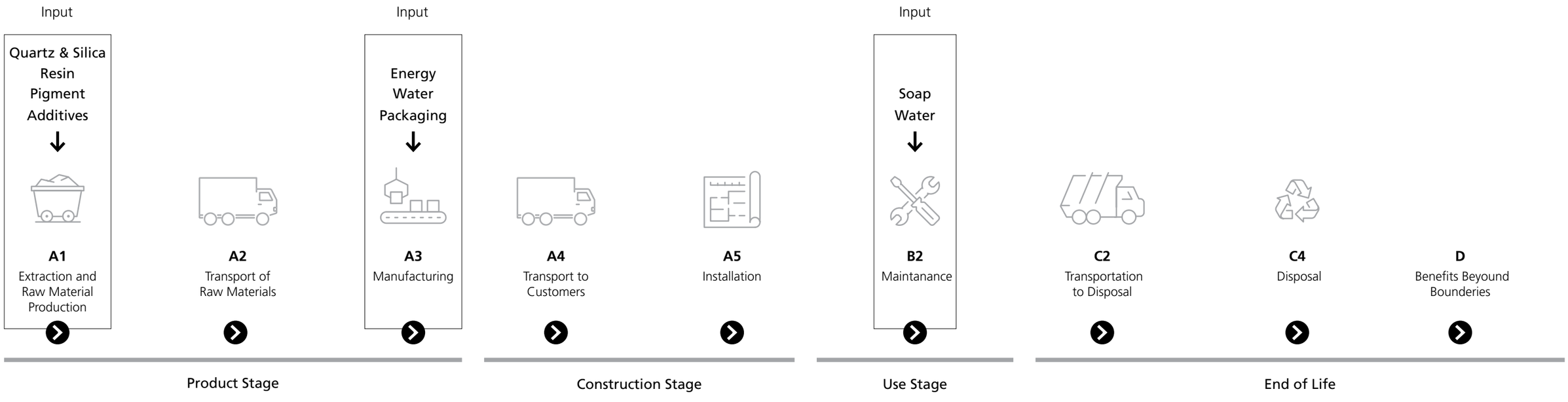
Reference service life
75 years as seen in product declaration.

Time representativeness
Data collection was in reference to the year of 2021.

Database(s) and LCA software used
Simapro 9.3, Ecoinvent 3.8

Description of system boundaries
Cradle to grave (A-D).

System Diagram



A1 Depicts the raw material production, in a number of different countries: Turkey, China, Israel, England, Portugal, Spain.

A2 Describes the shipping and transportation of these materials to Ashdod Port and to Bar Lev facilities near Carmiel Israel.

A3 Includes the production of the 4044 slabs, in the Bar Lev facility. A3 also includes transport to recycling of nylon and transport of metal to reuse.

Due to data availability at Caesarstone, the model depicts the manufacturing stage as a "black box", meaning there is a full depiction of used types and quantities of materials, fuels, auxiliary materials, energy, waste and emissions over the whole manufacturing process, however there is no internal division of different stages/machines with the manufacturing process. A3 Models hazardous waste treated by incineration offsite Caesarstone use water over the production process in a closed circuit, as they have a waste water treatment system on site. Due to this, only 0.3% of yearly water is lost throughout the process. Water treatment is also included in the modeling of A3.

A4 Models distribution to global customers as a weighted average, true to 2021 data. Shipping data is as follows; 42% of customers are located in Australia, 24% USA, 18% are located in other areas (Rest of the world), 4% Israel, 5% UK, 4% Canada, 2% South East Asia. Additionally, a distance of 1000 km was modeled pertaining to distance from Bar Lev to Ashdod port, travel from destined port to retail, and retail to customer home.

A5 Includes installation of the 4044 surface in customer homes. As discussed with Caesarstone the installation inputs and outputs are very low. The process which occurs here includes fabricators cutting the slab to the specific size of customer needs (with machinery and electricity at very low input), and a type of adhesive/welding process which also occurs using very low input. These processes occur at customer home/fabricator facilities and thought to include very minor inputs and outputs. Using a circular saw for half an hour of use would consume approximately 0.9 KWH. The total energy consumption during the slab factory manufacturing, totals to 116 kwh. As such, we can see the energy consumption under the installation phase falls under the cut-off criteria, as it is under 1% in relation to total product energy consumption. Therefore the A5 does not depict energy use, and depicts only the disposal of the packaging in which the product arrived, in this case- transport of nylon to recycling facility (cut off method).

B2 Represents the consumer maintenance phase. This phase was modled to include weekly washing of the surface with water and soap, over 75 years of consumer use. The quantities chosen are: 0.0008 m3/year, and 0.2 Kg soap/ year for 75 years. Regarding the consumer use itself known as B1, no specific inputs or out puts are needed for use of the countertop, as it used as a surface. No inputs or outputs occur in B1. Regarding stages B3, **B4, B5** – the 4044 slab physical priorities such as hardness, resistance to scratching and stains make repair, replacement or rehabilitation of the countertop unnecessary. Due to this B3,4,5 are not included in studied modules. Regarding energy and water use in the operational use (B6, B7) there are no energy inputs as energy is not required for product use, therefore B6 is excluded from consideration for this study. Water use (B7) is already calculated and considered during the maintenance stage, and therefore also not regarded within this study.

C1-C4 Processes model the end of life treatment, and include transportation to landfill facility (C2) with an average 100 km distance, and treatment of the waste in sanitary landfill.The life cycle of the slab is considered to be independent from the life cycle of the building.

Regarding the dismantling of the product before transport and waste treatment, The dismantling of the surface can be considered negligible in input consumption and therefore C1 is 0.

C3 and C4 include the disposal- sanitary landfill of the product including waste treatment and final disposal.

D Module D represents benefits from waste treatments occurring in researched scenario and beyond study boundaries. As the 4044 slab is fully treated by landfill, there is no recycling/ reusing benefit at end of life that can currently be reported. No benefits and loads exist outside the system boundary, and therefore model D value is 0 throughout the result charts

More Information

Allocation

The study uses mass allocation method. Additionally, the allocation method used in this study for all data sets is the "cut off" method. Regarding end of life, this method does not include burdens of the recycling, but rather only transportation to recycling facilities, as it considers the burdens and credit of recycling to the "second" product produced from recycled material. The functional unit for this study is one 4044 slab, as guided by the PCR.

Data Quality

A data quality assessment was found to be satisfactory as seen in description in the tables below. Data for each of the model stages was received directly from Caesarstone, and represents current production and distribution processes in Caesarstone site. Data was gathered for the year of 2021, and specific for the Bar Lev production site. Data was found to be plausible and consistant,during self verification throughout the study and impact rsult analysis.

Regarding A1, for a small number of substances, there is use of generic LCA data sets. The chosen data sets represent closest data and should accurately depict these processes and materials.

The installation phase was discussed with Caesarstone, and models only the packaging waste.

The Maintenance stage includes washing of the countertops. As this is under consumer use, and there was no specific information on this treatment from Caesarstone, the data modeled is based on a an EPD of a similiar product, published in 2019. The LCA modeled one weekly cleaning, with a certain amount of soap and water. The model pertains to 75 years of use and thus was calculated in accordance.

For measure of distances for transportation of raw materials to Bar Lev facility, the model depicts the shipping distance between the most probable port in each manufacturing country to Ashdod port. For shipping distance a weighted average was calculated.

For measure of transport to customers a 1000 km of lorry road transport which includes transport of product from Bar Lev to Ashdod port, transport from destined port to retail, and transport from retail to customer.

For measure of transportation distance at the end of life, the distance from the customer home to the Landfill facility a distance of 100 Kilometer was used.

* Dekton, EPD Nº. S-P-00916 – version 2 Publication date: 01/10/2016

Data Quality Assessment and Uncertainty Analysis

Indicator	A1	A2
Reliability	Data was observed and reported directly from manufacturing site	Weight of product was provided by manufacture, while distance was estimated with online distance calculators
Completeness	Data was representative for Bar Lev production site	Data was representative for Bar Lev production site
Temporal Correlation	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used.	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used.
Geographical Correlation	Data is representative of country specific data where possible, and continental regions where specific data sets were not available	Data is representative of country specific data where possible, and continental regions where specific data sets were not available.
Technical Correlation	Data on related process and Materials	Transportation modes were provided by manufacturer

Table 1 - Data Quality assesmnet A1-2

Indicator	A3	A4	A5
Reliability	Data was observed and reported directly from manufacturing site	Transport data was based on specific sales distribution data calculated by the company	Data was all provided by manufacturer and was also verified in literature
Completeness	Data was representative for Bar Lev production site	Data was representative for Bar Lev production site	Data was representative for Bar Lev production site
Temporal Correlation	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used
Geographical Correlation	Data is representative of country specific data where possible, and continental regions where specific data sets were not available	Data is representative of country specific data where possible, and continental regions where specific data sets were not available	Data is representative of country specific data where possible, and continental regions where specific data sets were not available
Technical Correlation	Data from enterprises, processes, and materials under study	Transportation modes were provided by manufacturer	Data from enterprises, processes, and materials under study

Table 2 - Data Quality Assesment A3-5

Indicator	B2	C2	C4	D
Reliability	Data was extrapolated from existing EPD	Transport distance based on average distribution estimation	Data was provided by manufacturer measurements	Data was provided by manufacturer measurements
Completeness	Data is complete	Data is complete	Data is complete	Data is complete
Temporal Correlation	EPD referenced is 2016 and latest version of Ecoinvent is used	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used	Manufacturer measurement are true for 2021 and latest version of Ecoinvent is used.
Geographical Correlation	Global coverage	Global coverage	Global coverage	Global coverage
Technical Correlation	Data on related process and Materials	Transportation modes were provided by manufacturer	Transportation modes were provided by manufacturer	-

Table 3 - DataQuality Assesment B-D

All data adheres to the following:

a) Age < 10 years for generic data
b) Age < 5 years for specific data
c) Specific data based on 1-year average (unless deviations are justified)
d) Time period of 100 years, in case of a landfill scenario: longer if relevant
e) Complies with physical reality of the product as far as possible, in terms of geographical and technological coverage

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

	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
Module	**A1**	**A2**	**A3**	**A4**	**A5**	**B1**	**B2**	**B3**	**B4**	**B5**	**B6**	**B7**	**C1**	**C2**	**C3**	**C4**	**D**
Modules declared	X	X	X	X	X	X	X						X	X	X	X	X
Geography	Int	Int	Israel	Int	Int	Int	Int							Int		Int	
Specific data used	More than 90% of data used in specific					-	-	-	-	-	-	-	-	-	-		-
Variation – products	To be filled					-	-	-	-	-	-	-	-	-	-		-
Variation – sites	To be filled					-	-	-	-	-	-	-	-	-	-		-

Content Information

Product components	Weight, kg	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Quartz and silica	211 Kg		
Resin	24.9 kg		
Pigments	5.7 kg		
Additives	1.7 kg		
Paper	1.9 kg		
TOTAL	**249 kg**		

Packaging materials	Weight, kg	Weight-% (versus the product)	Weight biogenic carbon, kg C/kg
Nylon	0.25 kg	0.6%	
TOTAL	**0.25 kg**		

Results of The Environmental Performance Indicators

Mandatory impact category indicators according to EN 15804

Results per functional or declared unit									
Indicator	Unit	A1-A3	A4	A5	B2	C1	C2	C3+4	D
GWP-fossil	kg CO_2 eq.	2.67E+02	6.96E+01	5.99E-01	4.97E+00	0	4.32E+00	2.62E+00	0
GWP-biogenic	kg CO_2 eq.	3.03E-01	2.03E-02	4.59E-05	9.79E-01	0	1.42E-03	2.12E-02	0
GWP-luluc	kg CO_2 eq.	1.60E-01	3.69E-02	6.83E-06	7.68E+00	0	1.76E-03	2.67E-03	0
GWP-total	kg CO_2 eq.	2.66E+02	6.97E+01	5.99E-01	1.58E+01	0	4.33E+00	2.66E+00	0
ODP	kg CFC 11 eq.	1.66E-05	1.48E-05	2.26E-09	7.76E-07	0	9.53E-07	7.97E-07	0
AP	mol H+ eq.	1.55E+00	1.03E+00	1.55E-04	6.08E-02	0	1.79E-02	2.22E-02	0
EP-freshwater	kg P eq.	5.25E-02	4.11E-03	2.10E-06	4.53E-02	0	3.25E-04	7.60E-04	0
EP-marine	kg N eq.	3.00E-01	2.63E-01	8.26E-05	6.33E-02	0	5.28E-03	7.64E-03	0
EP-terrestrial	mol N eq.	3.13E+00	2.91E+00	7.17E-04	2.13E-01	0	5.76E-02	8.31E-02	0
POCP	kg NMVOC eq.	1.07E+00	7.81E-01	1.78E-04	3.47E-02	0	1.75E-02	2.40E-02	0
ADP-minerals & metals	kg Sb eq.	2.04E-03	1.83E-04	5.70E-08	1.03E-04	0	1.47E-05	8.56E-06	0
ADP-fossil*	MJ	5.20E+03	9.74E+02	1.75E-01	5.17E+01	0	6.37E+01	6.16E+01	0
WDP*	m^3	1.42E+02	2.78E+00	2.84E-02	2.62E+01	0	2.20E-01	2.68E+00	0
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption								

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

** Waste - The indicators refer to waste quantities leaving the system boundaries, which means that the environmental impacts of the waste treatment are not considered in the environmental indicators. As some background databases (e.g. ecoinvent) follow the approach to include waste treatment in the system boundaries, the results of these indicators are highly dependent on the selected back-ground databases. As only ecoinvent datasets were used, which include the waste treatment in their system boundaries, the waste production indicators are 0.

*** The results of all C3 indicators are 0.

Other Environmental Performance Indicators

For full table of EN15804 Please see below:

Impact category	Unit	Total	A1-A3	A4- Transport to customer	A5- Installation	B2- Maintenance	C1	C2 - Transport to end of life	C3+4- Disposal	D
Climate change	kg CO_2 eq	3.59E+02	2.66E+02	6.97E+01	5.99E-01	1.58E+01	0	4.33E+00	2.66E+00	0
Ozone depletion	kg CFC11 eq	3.39E+02	1.66E-05	1.48E-05	2.26E-09	7.76E-07	0	9.53E-07	7.97E-07	0
Ionising radiation	kBq U-235 eq	1.33E+01	7.92E+00	4.43E+00	6.32E-04	3.69E-01	0	2.91E-01	2.87E-01	0
Photochemical ozone formation	kg NMVOC eq	1.93E+00	1.07E+00	7.81E-01	1.78E-04	3.47E-02	0	1.75E-02	2.40E-02	0
Particulate matter	disease inc.	1.61E-05	1.08E-05	3.77E-06	9.36E-10	8.668E-07	0	2.98E-07	4.34E-07	0
Human toxicity, non-cancer	CTUh	3.38E-06	2.34E-06	6.65E-07	2.07E-09	2.94E-07	0	5.32E-08	2.96E-08	0
Human toxicity, cancer	CTUh	4.78E-07	4.27E-07	3.21E-08	5.49E-11	1.44E-08	0	1.63E-09	1.92E-09	0
Acidification	mol H+ eq	2.68E+00	1.55E+00	1.03E+00	1.55E-04	6.08E-02	0	1.79E-02	2.22E-02	0
Eutrophication, freshwater	kg P eq	1.03E-01	5.25E-02	4.11E-03	2.10E-06	4.53E-02	0	3.25E-04	7.60E-04	0
Eutrophication, marine	kg N eq	6.39E-01	3.00E-01	2.63E-01	8.26E-05	6.33E-02	0	5.28E-03	7.64E-03	0
Eutrophication, terrestrial	mol N eq	6.40E+00	3.13E+00	2.91E+00	7.17E-04	2.13E-01	0	5.76E-02	8.31E-02	0
Ecotoxicity, freshwater	CTUe	5.19E+03	3.56E+03	7.61E+02	1.30E+00	7.66E+02	0	5.54E+01	4.80E+01	0
Land use	Pt	2.74E+03	1.59E+03	4.78E+02	8.06E-02	4.81E+02	0	4.33E+01	1.48E+02	0
Water use	m3 depriv.	1.74E+02	1.42E+02	2.78E+00	2.84E-02	2.62E+01	0	2.20E-01	2.68E+00	0
Resource use, fossils	MJ	6.35E+03	5.20E+03	9.74E+02	1.75E-01	5.17E+01	0	6.37E+01	6.16E+01	0
Resource use, minerals and metals	kg Sb eq	2.35E-03	2.04E-03	1.83E-04	5.70E-08	1.03E-04	0	1.47E-05	8.56E-06	0

Impact category	Unit	Total	A1 - Raw Material	A2- Transport of Raw Material	A3 - Manufacturing	A4- Transport to customer	A5 - Installation	B2 - Maintenance	C1	C2 - Transport to end of life	C3+4 - Disposal	D
Carbon monoxide	kg	0.64329871	0.34675606	0.036240977	0.10238503	0.12766691	4.47E-05	0.009478255	0	0.009186857	0.01153995	0
Carbon, biogenic, fixed	kg	2.130481	0.12594235	-0.002512979	0.099921981	-0.011359167	-8.81E-06	1.9228242	0	-0.001421364	-0.002905198	0
Dinitrogen monoxide	kg	0.015176748	0.005391411	0.000971655	0.001921597	0.003300985	2.32E-05	0.003281166	0	0.000208169	7.85E-05	0
Methane	kg	1.4342675	0.857353	0.059569518	0.25425344	0.20490662	4.16E-05	0.030983905	0	0.013554663	0.013604811	0
Lead	kg	0.000306198	0.00014795	2.17E-05	3.47E-05	8.37E-05	2.39E-08	8.58E-06	0	7.78E-06	1.76E-06	0
Zinc	kg	0.000543326	0.000186306	5.79E-05	2.96E-05	0.000224873	1.17E-07	2.02E-05	0	2.12E-05	3.04E-06	0
Particulates	kg	0.50250689	0.23365967	0.04053129	0.061849834	0.13571151	2.12E-05	0.017555577	0	0.008062508	0.005115284	0
Particulates >10 um	kg	0.27126496	0.13311658	0.020181233	0.036780803	0.069330432	1.17E-05	0.005191272	0	0.004564335	0.002088631	0
Particulates, >2.5 um and <10	kg	0.095889215	0.038336986	0.010539149	0.00559485	0.034342028	4.32E-06	0.004550328	0	0.001800333	0.000721224	0
Heat, waste	MJ	120.93783	16.9256	3.5953769	39.053701	13.145483	7.7769348	37.995303	0	1.0615895	1.3838438	0
Oils, unspecified	kg	0.030429978	0.006267642	0.00423196	0.002300681	0.014531403	1.44E-06	0.0014274	0	0.00095493	0.000714523	0
Aerosole	kBq	0.1751486	0.10166161	0.002576042	0.05618456	0.009505236	3.82E-06	0.003442075	0	0.000787733	0.000987523	0
Actinides (air)	kBq	0.028111435	0.011916416	0.000562906	0.012022055	0.002068668	8.53E-07	0.001169451	0	0.000169511	0.000201575	0
Actinides (water)	kBq	0.48758079	0.13939923	0.064241837	0.028719608	0.21957599	2.44E-05	0.008793303	0	0.014178994	0.012647403	0
Noble gas	kBq	1752.3894	1495.3486	30.541487	56.329196	110.50024	0.042124849	39.144118	0	8.6529568	11.830708	0
Nuclides	kBq	2.0679208	0.51392283	0.2933382	0.1149399	1.0003951	9.96E-05	0.025717722	0	0.064047895	0.055459531	0
Radon (+ radium)	kBq	3339.1218	2416.2801	107.55581	205.20942	388.63901	0.15305151	146.9963	0	30.315456	43.972629	0
Radium	kBq	14.113154	2.4021945	2.2397195	0.78538363	7.6338501	0.000719327	0.14475349	0	0.48763213	0.41890105	0
Tritium	kBq	328.09059	294.8836	4.0195624	7.1874693	14.568109	0.005367273	4.8073445	0	1.1466944	1.4724407	0
Water	M^3	4.010829	3.0049302	0.026136844	0.36954624	0.095306517	0.00085937	0.4427544	0	0.007637355	0.063658048	0
Freshwater	M^3	4.0357139	2.9940253	0.033868695	0.37012797	0.12188496	0.000861809	0.44036939	0	0.009391212	0.065184597	0

Indicator	Sub-indicator	Unit	Total	A1	A2	A3	A4	A5	B2	C1	C2	C3+4	D
Use of renewable primary energy	Excluding renewable primary energy resources used as raw materials	MJ	520.87	250.13	3.05	26.90	11.02	0.01	227.83	0	0.86	1.08	-
	Renewable primary energy resources used as raw materials	MJ	38.08	38.08	-	-	-	-	-	0	-	-	-
	Total	MJ	558.95	288.21	3.05	26.90	11.02	0.01	227.83	0	0.86	1.08	-
Use of non-renewable primary energy	Excluding non-renewable primary energy resources used as raw materials	MJ	4,887.00	2,311.14	297.20	1,069.28	1,021.44	0.18	57.21	0	67.35	63.20	-
	Non-renewable primary energy resources used as raw materials	MJ	1,510.04	1,425.62	-	84.42	-	-	-	0	-	-	-
	Total	MJ	6,397.04	3,736.76	297.20	1,153.70	1,021.44	0.18	57.21	0	67.35	63.20	-
Use of secondary material		kg	-	-	-	-	-	-	-	0	-	-	-
Use of renewable secondary fuels		MJ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
Use of non-renewable secondary fuels		MJ	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	N/A	N/A
Net use of fresh water		m^3	4.04	2.99	0.03	0.37	0.12	0.00	0.44	0	0.01	0.07	-

		Environmental information describing output flows										
Indicator	Unit	Total	A1	A2	A3	A4	A5	B2	C1	C2	C3+4	D
Components for re-use	Kg	0	0	0	0	0	0	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0	0	0	0	0	0	0
Exported Energy - MJ	MJ	0	0	0	0	0	0	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	0	0	0	0	0	0	0	0
7.2.5 Information on Biogenic Content	-	0	0	0	0	0	0	0	0	0	0	0
Biogenic carbon content in product kg C	kg	0	0	0	0	0	0	0	0	0	0	0
Biogenic carbon content in accompanying packaging	kg	0	0	0	0	0	0	0	0	0	0	0

References

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