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Environmental Product Declaration

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

Ceramic Tableware Products

Print, Ground, Cras Collection Manufactured by **Bonna Ceramic**

Programme	The International EPD® System, www.environdec.com
Programme Operator	EPD International AB
Licensee	EPD Türkiye
Geographical Scope	Global
EPD Registration Number	EPD-IES-0017302
Publication Date	2024-12-02
Validity Date	2029-12-01

bonna

Programme Information

Product category rules (PCR):

Tableware and kitchenware, Version 2022:01, UN CPC 37221

PCR review was conducted by:

The Technical Committee of the International EPD® System. A full list of members is available at www.environdec.com. The review panel may be contacted via info@environdec.com.

Members of the Technical Committee were requested to state any potential conflict of interest with the PCR Committee, and if there were conflicts of interest they were excused from the review.

Chair of the PCR review: Gorca Benito

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

Process Certification

Individual Verification

Third-party verification:

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

Third party individual verifier: Agnieszka Pikus, Greenwise, www.greenwise.com.pl

Approved by:

The International EPD® System

LCA Practitioner:

Gülbahar Korkusuz & Hüdai Kara - Metsims Sustainability Consulting

The procedure for follow-up during EPD validity, as defined in the GPI, involves third-party verifier:

Yes

No

The environmental impacts of different EPDs can be compared only taking into account all the technical information supporting the functional unit definition as requested by the PCR.

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

Programme Operator

EPD International AB
Box 210 60, SE-100 31 Stockholm, Sweden
info@environdec.com

Ownership

EPD owner
has the sole ownership, liability and responsibility of the EPD.

About Bonna

Bonna entered the gastronomy sector as the new-gen representative of Kar Porcelain, whose roots stretch back to 1983. In just 10 years, Bonna has become Türkiye's Export Champion in its category. Today, the brand proudly supports the creative presentations of chefs in more than 100 countries across 6 continents.

As Türkiye's first and only 100% HoReCa brand, Bonna promises "perfect presentation each time" driven by its strong commitment to premium product performance, unique design, and sustainable practices. Bonna aims to enrich the gastronomic experience while contributing to environmental and societal wellbeing, thus promoting sustainable economic growth.

With two production facilities located in Kocaeli and Bilecik, Bonna produces 40 million pieces annually, delivering exceptional products to the global market.

Vision

To inspire the taste of the future and become one of the industry's leading global brands

Our Absolute Values

Three organizational values lead our actions. These values constitute the common behavioral guide and philosophy of Kar employees.

1. Adapt latest technology and lead continuous innovation
 2. Lead collaborative relationships
 3. Adapt ethical work style
-

Mission

We act as a partner to create excellent gastronomy experience and accompany joyful moments.

In Kar Porcelain, we define ourselves as a stakeholder of the gastronomy industry, and produce and market products for tabletop industry all over the world. We are dedicated to make promises based on our values and act accordingly. Our promise to our customers is to provide innovative, original, high quality, and accessible products developed through the latest technology while being responsible to the whole society and environment, and continuously increasing the business volume for economic development.



Product Information

This EPD covers the following three products: Prints, Ground and Crass collection. The product composition and the manufacturing processes are the exactly the same based on the ISO 14021 waste definitions. The only difference is the shape of the products. The representative product is selected based on the production volume.

Prints Collection

Prints by Bonna products are produced from recycled industrial ceramic waste¹ within the framework of Bonna's understanding of efficiency in the use of natural resources and sustainability in production. Bonna invites you to participate in this transformation from the table, with these products that are produced without wasting the resources of our planet.

We cooperated with WWF-Turkey so that threatened wild animals can take one more step on earth. Every piece of Prints collection is genuinely inspired by the tail and footprints of threatened species. With every Prints product that can be put on the table, it is possible to draw attention to living creatures whose future is in danger and to make them leave another mark on the world.

UN CPC Code of the product is 37221 Ceramic tableware, kitchenware, other household articles and toilet articles.

¹ Pre-Consumer Waste

Pre-consumer material is diverted from the waste stream during a manufacturing process but is not considered a finished product. It typically includes scraps, trimmings, and overproduction materials that are reused within the same manufacturing process or another. The reutilization of materials generated in a process and capable of being reclaimed within the same process that generated it is excluded from this definition. From a carbon intensity perspective, pre-consumer materials do not complete their life cycle. So, carbon emissions should behave like a virgin material. (ISO14021)



Ground Collection

Experience the grounded elegance of the Ground Collection, where the rustic charm of nature is masterfully transformed into sophisticated tableware. Each piece, meticulously crafted to reflect the organic beauty of the earth, invites you to bring a touch of nature's tranquility to your dining setting. Inspired by the diverse textures and tones of natural landscapes, the Ground Collection features a harmonious blend of gray and cream hues. The special glazing technique used to achieve the matte and glossy surfaces not only enhances the visual appeal but also adds depth and a tactile quality reminiscent of handcrafted ceramics. The soft, rounded forms of the collection exude elegance, creating a warm and inviting atmosphere perfect for hotels, restaurants, and cafes. Whether presenting a rustic farm-to-table dish or an elaborate gourmet creation, the Ground Collection provides a canvas that elevates every culinary experience. With its enduring style and natural sophistication, this collection promises to make every meal memorable.

UN CPC Code of the product is 37221 Ceramic tableware, kitchenware, other household articles and toilet articles.

Cras Collection

Infused with the serene hues of nature, the Cras Collection transforms any space into a haven of peace and tranquility. Our palette, inspired by the soothing tones of gray and cream, introduces a sophisticated and contemporary elegance to your table setting. Each piece in the collection is crafted to evoke the delicate artistry of a ceramicist's workshop, bringing a unique touch of the outdoors to your dining experience. With their distinct and varied shapes, these pieces are not only eye-catching but also offer versatile functionality. The Cras Collection is meticulously crafted to meet a variety of needs, available in multiple sizes to seamlessly match your personal style and the specific dimensions of your presentation areas. Whether you are looking to create a minimalist arrangement or an elaborate display, the new additions to our collection provide endless possibilities for mixing and matching, ensuring that your table is as dynamic as your menu.

UN CPC Code of the product is 37221 Ceramic tableware, kitchenware, other household articles and toilet articles.

Product Components	Weight, kg	Post-industrial Recycled Material, weight-%	Post-consumer Recycled Material, weight-%	Biogenic Material, weight of % and kgC/product
Ceramic Waste	0.450	45%	0%	0%
Kaolin	0.320	0%	0%	0%
Clay	0.130	0%	0%	0%
Quartz	0.005	0%	0%	0%
Alumina	0.005	0%	0%	0%
Total	1	45%	0%	0%
Packaging Materials	Weight, kg	Weight-% (vs product)	Weight biogenic carbon kg C/product or declared unit ¹	
Plastic Stripe	0.39	39%	0	

¹Biogenic carbon content conversion factor is determined as 44/12.



System Boundary

A1. Raw Material Supply

Raw material supply stage includes use of waste, raw material extraction and pre-treatment processes before production. In this report, production for each product starts with raw material acquisition. Environmental impacts of these materials are considered in this stage.

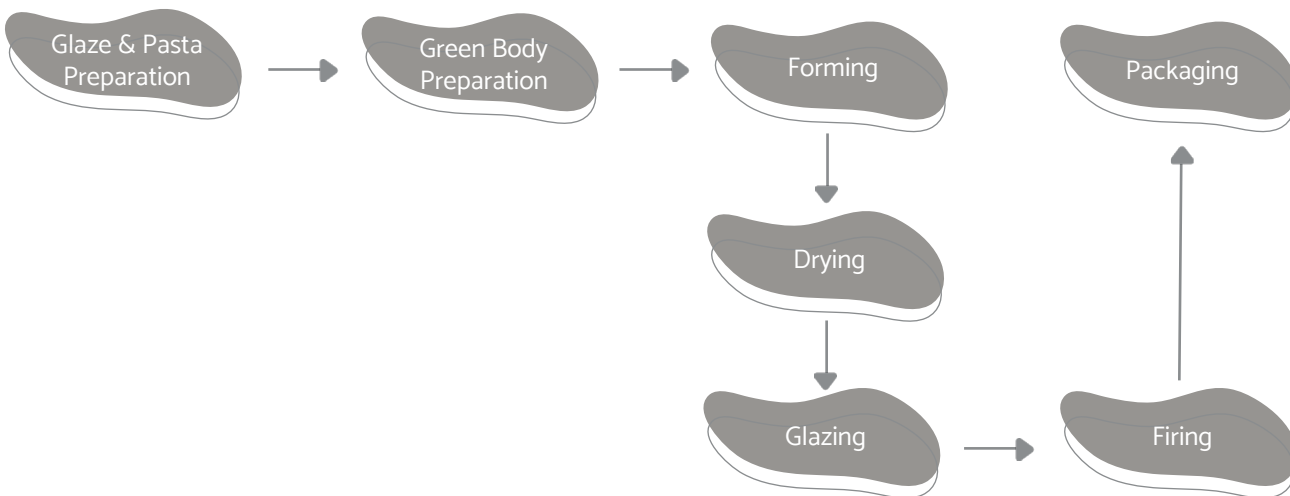
A2. Raw Material Transport

This stage is relevant for the delivery of raw materials to the production plant. Highway transport is the dominant mean of transport at this stage along with sea transportation. Transport routes and distances are supplier-specific and provided by the manufacturer.

Transport Mode	Type
Road	Vehicle: Lorry Size Class: 3.5-7.5 metric ton Emission Standard: EURO6 Fuel Type: Diesel
Sea	Vehicle: Container Ship DWT (Load Capacity): 43000 tonnes Fuel Type: Heavy Fuel Oil

A3. Manufacturing

Manufacturing stages include production of granules by spray drying, forming, drying, glazing, firing and packaging. Transport is only relevant for delivery of raw materials to the plant and forklift usage within the factory.



A4. Transport to an Average Retailer/Distribution Platform

This stage is relevant for the delivery of final product to the intended markets and customers. Highway, airway and sea transportation are involved in this stage. The transport routes and distances are supplier-specific and provided by the manufacturer.

Transport Mode	Type
Road	Vehicle: Lorry Size Class: 3.5-7.5 metric ton Emission Standard: EURO6 Fuel Type: Diesel
Sea	Vehicle: Container Ship DWT (Load Capacity): 43000 tonnes Fuel Type: Heavy Fuel Oil
Air	Distance: Long Haul

A5. Waste treatment processes of packaging waste

Once the final product is delivered to the customer, the disposal impacts of the packaging are assessed at this stage. For plastic strips, it is assumed that 29% is recycled at the end of life, while 71% is disposed of in landfills.

A6. Treatment of the Product Before the First Use

The final product goes through a treatment process before its first use. For the cleaning phase, it is assumed that it is washed once in the dishwasher in normal washing mode. Electricity, water and detergent consumptions are considered.

B1. Transport to Use and Back to Washing and Drying

Transportation from the product owner site gate to the use site and back to an average washing and drying site impacts are considered in this stage. 30 km average transportation distance is assumed for catering services.

B2. Washing and Drying (after the use)

Any washing and drying operation of the product after the use such as the use of washing machines, electricity, water, detergents and other chemical substances are considered in this stage. For the cleaning phase, it is assumed that it is washed once in the dishwasher in normal washing mode.

B3. General Maintenance

No maintenance is required for Bonna tableware products within their life cycle.

C1. Disassembling/sorting

No operation is required for the separation of product components and subsequent sorting.

C2. Transport to Disposal Site

This stage includes the transportation of discarded tableware product to the waste processing/disposal area. 50 km average distance by trucks is assumed.

C3. Final Disposal

Emissions from waste disposal are considered part of the product system under study and therefore are part of this module, according to the "polluter pays principle". Impact of product that go to the disposal area are included at this stage.

LCA Information

Functional Unit

1 kg of tableware product manufactured by Bonna with a lifespan of 1000 uses as defined in PCR.

Period Under Review

The data used for LCA study concerns the year 2023.

System Boundary

The scope of this LCA Study and EPD are based on cradle-to-grave system boundary.

Cut-off Rules

The criteria for exclusion were set so that individual input flows less than 1% of the total.

Background Data

For all LCA modelling and calculation, Ecoinvent database (v3.10) and SimaPro (v9.6) LCA software were used. Characterization factors of EN 15804 reference package based on EF 3.1 are utilized. Impact of infrastructure and capital goods are excluded from the analysis. Mass balance approach does not applied.

REACH Regulation

No substances included in the Candidate List of Substances of Very High Concern for authorization under the REACH regulations are present in this product either above the threshold for registration with the European Chemicals Agency or above 0.1% (wt/wt).

Source of Electricity

The modeled electricity data for the manufacturing of the investigated products are taken from ecoinvent 3.10 database (reference year 2021) which has carbon density of 0.575 kg CO₂ eq. / kWh for medium voltage electricity production. The selected electricity data¹ consists of around 35% electricity production from hard coal and lignite, 29.2% hydro, 19.4% natural gas, 9.4% wind, 3.5% geothermal, 1.2% co-generation from natural gas, 1.1% biogas and around 1.2% from various other sources.

Allocation

Energy consumption and raw material transportation were weighted according to 2023 production figures. In addition, hazardous and non-hazardous waste amounts were also allocated from the total waste generation in 2023. For packaging waste end of life, Annex C version 2.1 (May 2020) of JRC report* is utilized to determine the final fate (recycling, landfilling, incineration etc.) of materials and their percentages.

Assumptions

Upstream and downstream road transportation are assumed to be carried out with Euro6 motor vehicles with a size class of 3.5-7.5 metric tonnes where distances acquired through Google Maps. 30 km average transportation distance for B1 and 50 km distance for the waste transport at C2 stage is assumed. Lifespan of the ceramic tableware product is assumed as 1000 cycles of use as described in the PCR.

	Upstream			Core			Downstream					
	Product Stage			Transport, first treatment and packaging end-of-life			Washing and maintenance			End of life stage		
	Raw Material Supply	Transportation	Manufacturing	Transport to an average retailer/distribution platform	Waste treatment processes of packaging waste	Treatment of the product before the first use	Transport to use and back to washing and drying	Washing and drying	General maintenance	Disassembling/sorting	Transport to recovery/disposal	Final Disposal
Module	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
Modules Declared	X	X	X	X	X	X	X	X	X	X	X	X
Geography	GLO	GLO	TR	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO
Specific Data Used	82%				-							
Variation Products	0%				-							
Variation Sites	0%				-							

(X = Module included, ND = Not declared, TR = Türkiye, GLO = Global)



LCA Results

Core Environmental Impact Indicators (Mandatory)													
		Upstream			Core			Downstream					
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
GWP-total	kg CO ₂ eq.	4.58E-01	3.17E-04	2.04E+00	7.38E-04	4.52E-01	2.05E-01	1.78E-02	2.05E+02	0.00E+00	0.00E+00	2.96E-02	6.50E-01
GWP-fossil	kg CO ₂ eq.	4.57E-01	3.16E-04	2.02E+00	7.37E-04	6.42E-02	2.04E-01	1.78E-02	2.04E+02	0.00E+00	0.00E+00	2.96E-02	5.52E-02
GWP-biogenic	kg CO ₂ eq.	3.93E-04	6.11E-08	9.50E-03	1.37E-07	3.88E-01	3.17E-04	3.44E-06	3.17E-01	0.00E+00	0.00E+00	5.74E-06	5.95E-01
GWP-luluc	kg CO ₂ eq.	3.82E-04	1.49E-07	6.61E-03	3.36E-07	1.07E-05	3.05E-04	8.38E-06	3.05E-01	0.00E+00	0.00E+00	1.40E-05	1.55E-05
ODP	kg CFC-11 eq.	6.57E-09	4.46E-12	6.55E-08	1.04E-11	3.35E-10	2.82E-09	2.50E-10	2.82E-06	0.00E+00	0.00E+00	4.17E-10	3.72E-10
AP	mol H ⁺ eq.	2.55E-03	8.56E-07	7.75E-03	2.79E-06	1.39E-04	1.61E-03	4.15E-05	1.61E+00	0.00E+00	0.00E+00	6.92E-05	1.86E-04
EP-Freshwater	kg P eq.	1.55E-04	2.89E-08	8.41E-04	6.30E-08	5.41E-05	9.44E-05	1.63E-06	9.44E-02	0.00E+00	0.00E+00	2.72E-06	8.27E-05
EP-Marine	kg N eq.	5.99E-04	1.86E-07	1.51E-03	6.57E-07	1.08E-03	2.04E-04	8.78E-06	2.04E-01	0.00E+00	0.00E+00	1.46E-05	1.56E-03
EP-Terrestrial	mol N eq.	4.32E-03	2.02E-06	1.51E-02	7.19E-06	4.59E-04	2.32E-03	9.48E-05	2.32E+00	0.00E+00	0.00E+00	1.58E-04	5.78E-04
POCP	kg NMVOC eq.	1.41E-03	1.02E-06	8.15E-03	2.99E-06	2.76E-04	7.13E-04	5.26E-05	7.13E-01	0.00E+00	0.00E+00	8.77E-05	3.65E-04
*ADPE	kg Sb eq.	3.20E-06	1.32E-09	9.35E-06	2.86E-09	3.10E-08	5.26E-06	7.50E-08	5.26E-03	0.00E+00	0.00E+00	1.25E-07	3.82E-08
*ADPF	MJ	2.75E+00	5.08E-04	9.54E+00	1.11E-03	4.64E-02	1.19E+00	2.88E-02	1.19E+03	0.00E+00	0.00E+00	4.80E-02	6.47E-02
*WDP	m ³ depriv.	1.64E-01	2.03E-05	1.05E+00	4.47E-05	-1.17E-01	1.68E-01	1.15E-03	1.68E+02	0.00E+00	0.00E+00	1.91E-03	-1.77E-01
Additional Environmental Impact Indicators (Mandatory)													
		Upstream			Core			Downstream					
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
**GWP-GHG	kg CO ₂ eq.	4.59E-01	3.17E-04	2.04E+00	7.39E-04	4.26E-01	2.05E-01	1.78E-02	2.05E+02	0.00E+00	0.00E+00	2.97E-02	6.09E-01
Additional Environmental Impact Indicators (Optional)													
		Upstream			Core			Downstream					
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
PM	Disease inci	2.88E-08	1.75E-11	4.76E-08	3.85E-11	2.08E-09	1.34E-08	9.87E-10	1.34E-05	0.00E+00	0.00E+00	1.65E-09	2.50E-09
***IR	kBq U235 eq.	5.21E-02	4.16E-06	1.35E-01	9.17E-06	6.59E-04	1.43E-02	2.35E-04	1.43E+01	0.00E+00	0.00E+00	3.92E-04	8.66E-04
*HTP-c	CTUh	1.31E-09	1.74E-12	4.87E-09	3.88E-12	9.03E-11	9.79E-10	9.82E-11	9.79E-07	0.00E+00	0.00E+00	1.64E-10	1.13E-10
*HTP-nc	CTUh	5.24E-09	2.57E-12	1.37E-08	5.91E-12	3.45E-09	3.29E-09	1.45E-10	3.29E-06	0.00E+00	0.00E+00	2.42E-10	5.16E-09
*SQP	Pt	1.97E+00	1.80E-03	7.24E+00	3.90E-03	5.83E-01	1.87E+00	1.02E-01	1.87E+03	0.00E+00	0.00E+00	1.70E-01	6.52E-01
Acronyms	GWP-total: Climate change, GWP-fossil: Climate change- fossil, GWP-biogenic: Climate change - biogenic, GWP-luluc: Climate change - land use and transformation, ODP: Ozone layer depletion, AP: Acidification terrestrial and freshwater, EP-freshwater: Eutrophication freshwater, EP-marine: Eutrophication marine, EP-terrestrial: Eutrophication terrestrial, POCP: Photochemical oxidation, ADPE: Abiotic depletion - elements, ADPF: Abiotic depletion - fossil resources, WDP: Water scarcity, PM: Respiratory inorganics - particulate matter, IR: Ionising radiation, ETP-FW: Ecotoxicity freshwater, HTP-c: Cancer human health effects, HTP-nc: Non-cancer human health effects, SQP: Land use related impacts, soil quality.												
Legend	A1. Raw Material Supply, A2. Raw Material Transport, A3. Manufacturing, A4. Transport to an average retailer/distribution platform, A5. Waste treatment processes of packaging waste, A6. Treatment of the product before its first use, B1. Transport to use and back to washing and drying (reconditioning), B2. Washing and drying B3. General maintenance, C1. Disassembling/sorting, C2. Transport to recovery/disposal, C3. Final disposal.												
Disclaimer & Statement	The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of this EPD should not be used without the consideration of Module C. The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks												

Indicators describing resource use (Mandatory)													
		Upstream	Core			Downstream							
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
PERE	MJ	6.08E-01	7.19E-05	4.15E+00	1.58E-04	0.00E+00	2.26E-01	4.07E-03	2.26E+02	0.00E+00	0.00E+00	6.78E-03	1.09E-02
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	6.08E-01	7.19E-05	4.15E+00	1.58E-04	0.00E+00	2.26E-01	4.07E-03	2.26E+02	0.00E+00	0.00E+00	6.78E-03	1.09E-02
PENRE	MJ	2.75E+00	5.08E-04	4.61E-01	1.11E-03	9.08E+00	1.19E+00	2.88E-02	1.19E+03	0.00E+00	0.00E+00	4.80E-02	6.47E-02
PENRM	MJ	0.00E+00	0.00E+00	9.08E+00	0.00E+00	-9.08E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRT	MJ	2.75E+00	5.08E-04	9.54E+00	1.11E-03	0.00E+00	1.19E+00	2.88E-02	1.19E+03	0.00E+00	0.00E+00	4.80E-02	6.47E-02
SM	kg	4.50E-01	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	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	6.84E-03	6.98E-07	7.97E-03	1.54E-06	2.86E-04	1.85E-03	3.95E-05	1.85E+00	0.00E+00	0.00E+00	6.59E-05	3.23E-04
Acronyms	PERE: Use of renewable primary energy excluding resources used as raw materials, PERM: Use of renewable primary energy resources used as raw materials, PERT: Total use of renewable primary energy, PENRE: Use of non-renewable primary energy excluding resources used as raw materials, PENRM: Use of non-renewable primary energy resources used as raw materials, PENRT: Total use of non-renewable primary energy, SM: Secondary material, RSF: Renewable secondary fuels, NRSF: Non-renewable secondary fuels, FW: Net use of fresh water.												
Environmental information describing waste categories (Mandatory)													
		Upstream	Core			Downstream							
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
HWD	kg	4.13E-04	1.11E-07	2.04E-01	2.46E-07	1.13E-04	1.68E-04	6.26E-06	1.68E-01	0.00E+00	0.00E+00	1.04E-05	1.64E-04
NHWD	kg	3.70E-02	1.28E-04	2.34E-02	2.75E-04	3.90E-01	3.37E-02	7.31E-03	3.37E+01	0.00E+00	0.00E+00	1.22E-02	1.09E+00
RWD	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	0.00E+00	0.00E+00
Environmental information describing output flow (Mandatory)													
		Upstream	Core			Downstream							
	Unit	A1	A2	A3	A4	A5	A6	B1	B2	B3	C1	C2	C3
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE-Electric	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE-Thermal	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Acronyms	HWD: Hazardous waste disposed, NHWD: Non-hazardous waste disposed, RWD: Radioactive waste disposed, CRU: Components for reuse, MFR: Material for recycling, MER: Materials for energy recovery, EE (Electrical): Exported energy electrical, EE (Thermal): Exported energy thermal.												
*Disclaimer 1	The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator												
**Disclaimer 2	GWP-GHG = Global Warming Potential total excl. biogenic carbon following IPCC AR5 methodology. The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. The GWP-GHG indicator is identical to GWP-total except that the characterisation factor (CF) for biogenic CO ₂ is set to zero.												
***Disclaimer 3	This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.												

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Contact Information

Programme & Programme Operator

The International EPD® System
www.environdec.com

EPD International AB Box 210 60
SE-100 31 Stockholm, Sweden
www.environdec.com
info@environdec.com



Licensee

EPD registered through fully aligned
regional licensee: EPD Türkiye
www.epdturkey.org
info@epdturkey.org

EPD Türkiye
NEF 09 B Blok No:7/15, 34415
Kağıthane/İstanbul, Türkiye



Owner of the Declaration

Bonna Ceramic
Contact Person: Güneş Korç
Phone: +90 538 056 73 80
E-mail: info@bonna.com.tr
www.bonna.com.tr

Pazaryeri Factory / Bilecik
Pamucak OSB Mahallesi Ring Yolu
Caddesi No:9/O Pazaryeri/BİLECİK

Phone: +90 (228) 380 00 33
Fax: +90 (262) 744 31 57

info@bonna.com.tr



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LCA Practitioner & EPD Design

Metsims Sustainability Consulting



The United Kingdom
Clear Water Place
Oxford OX2 7NL, UK o 800 722 0185
www.metsims.com
info@metsims.com

Türkiye
Nef 09 B Blok No:7/46-47 34415
Kağıthane/İstanbul, Türkiye
+90 212 281 13 33

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