EPD®

ENVIRONMENTAL PRODUCT DECLARATION

Ferrarelle

ENVIRONMENTAL PRODUCT DECLARATION OF FERRARELLE MINERAL WATER

Bottled in

PET 0.5l 1.25l 1.5l - ONE-WAY GLASS (**VAP**) 0.75l - RETURNABLE GLASS (**VAR**) 0.5l 0.75l 1l

Environmental Product Declaration Validated

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EPD®

ENVIRONMENTAL PRODUCT DECLARATION

Programme

The International EPD® System, www.environdec.com

Programme operator

EPD International AB

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The declaration is compliant with ISO 14025

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DESCRIPTION OF ORGANIZATION AND PRODUCT

THE COMPANY

History

The piping of Ferrarelle mineral water began in 1893, under the initiative of Dr. De Ponte, the owner of the water source. Several years later, in 1899, **Ferrarelle's Riardo establishment was inaugurated,** a thermal spa offering baths and health treatments. **In 1900, Ferrarelle ushered in a new era with its first launch in the commercial market, appearing as protagonist on Italian tables.** By 1903, Ferrarelle's drinking water was featured in medical and pharmaceutical magazines. The company was acquired by the Violati family in 1925 and became part of the Danone Group's Italaquae in 1987. In 2005 the Italian **LGR Holding SpA** acquired the company and registered it as **"Ferrarelle Spa,"** signalling the company's return to its original name and its reconnection with the historical brand and its rich tradition and reputation for quality, consistently proven by Ferrarelle's presence on Italian tables for more than 100 years.
In 2013 Ferrarelle celebrates the **120th anniversary.**

Ferrarelle today

Ferrarelle SpA is an Italian company that produces, bottles, and distributes mineral water for national and foreign markets. **In 2020 Ferrarelle SpA bottled 953 million litres of mineral water,** in terms of volume 7.5% and in terms of its share of market value 9.7% (Data Symphony IRI Group). Ferrarelle belongs to **LGR Holding SpA,** which owns brands such as Ferrarelle, Vitasnella, Fonte Essenziale, Boario, Santagata, Natía, and the exclusive Italian distributor of the Evian brand. Carlo Pontecorvo is president and CEO of the company which counts nearly 455 employees operating in three strategic sites:

455 employees

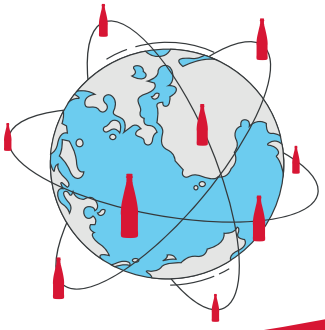
Milano
seat of marketing and business

Riardo (Caserta)
operational centre where the water sources of Ferrarelle, Santagata, and Natía (Roccafina), are found

Darfo Boario Terme (Brescia)
the cradle of the Boario, Vitas and Fonte Essenziale sources

Presenzano (Caserta)
technological plant for the recycled PET preforms production, created thanks to the contract signed with Invitalia

Through exportation of mineralized water Ferrarelle and natural Natía, Ferrarelle SpA works in different countries, including the **USA, Israel, France, Spain, Australia, New Zealand, Germany, United Kingdom, Russia, Denmark , Japan, Hong Kong, Taiwan.**



FUNCTIONAL UNIT

The functional unit is 1 litre of Ferrarelle mineral water bottled in

PET, in 0.5L - 1.25L and 1.5L, in **one-way glass** in 0.75l, and in **returnable glass** in 0.5L - 0.75L, and 1L, packaging included.

OTHER PRODUCT INFORMATION

The thousands separator and decimal mark in the EPD follow SI style English version.

Geographic Scope	ITALY
Data Referent Year	2020
Data base used	Ecoinvent 3.6 (2019)
Software used	SimaPro 9.1.0.11
EPD Boundary	cradle-to-grave
LCA Technical support	Altran Italia S.p.A. Via Tiburtina, 1232 - 00131 Rome ITALY

FEATURES

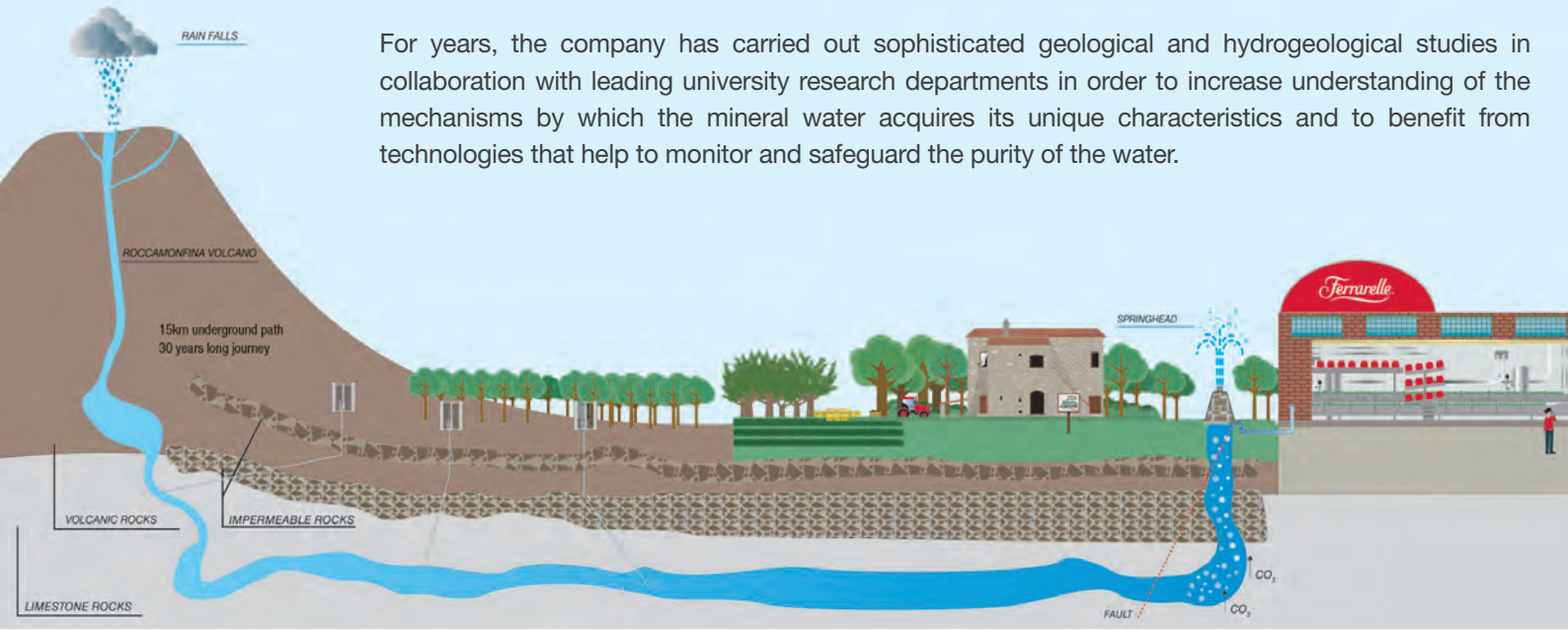
Origin

Ferrarelle has its origins in a green and virgin tract known as the Assano Valley or Bagni.

The Riardo spring preserve spans 145 hectares. Today, the large preserve, which includes land owned by the company and a mining concession area, ensures the purity of Ferrarelle's aquifers. The natural effervescence and precious minerals, which have made Ferrarelle famous all over the world, are the result of the water's natural trajectory

A UNIQUE PHENOMENON ATTRIBUTABLE ONLY TO NATURE.

For years, the company has carried out sophisticated geological and hydrogeological studies in collaboration with leading university research departments in order to increase understanding of the mechanisms by which the mineral water acquires its unique characteristics and to benefit from technologies that help to monitor and safeguard the purity of the water.



Sensorial Aspects

The water's chemical composition lends it a unique sensorial profile.

The naturally occurring effervescence, numerous fine and persistent bubbles that are reminiscent of champagne, is the result of the gradual carbonation of the water between layers of subsoil rock. The taste of Ferrarelle is very full and soft, with distinctive notes of sweetness and a distinctive roundness. Ferrarelle's effervescence is delicate and gentle, never disruptive to the palate, and strikes a perfect balance with the water's distinct mineral profile.

Benefits for the Body

Ferrarelle mineral water's positive effect on health has been recognized with a special decree from the Ministry of Health. Benefits include:

Helping the digestive process

The high assimilability of the calcium found in Ferrarelle mineral water

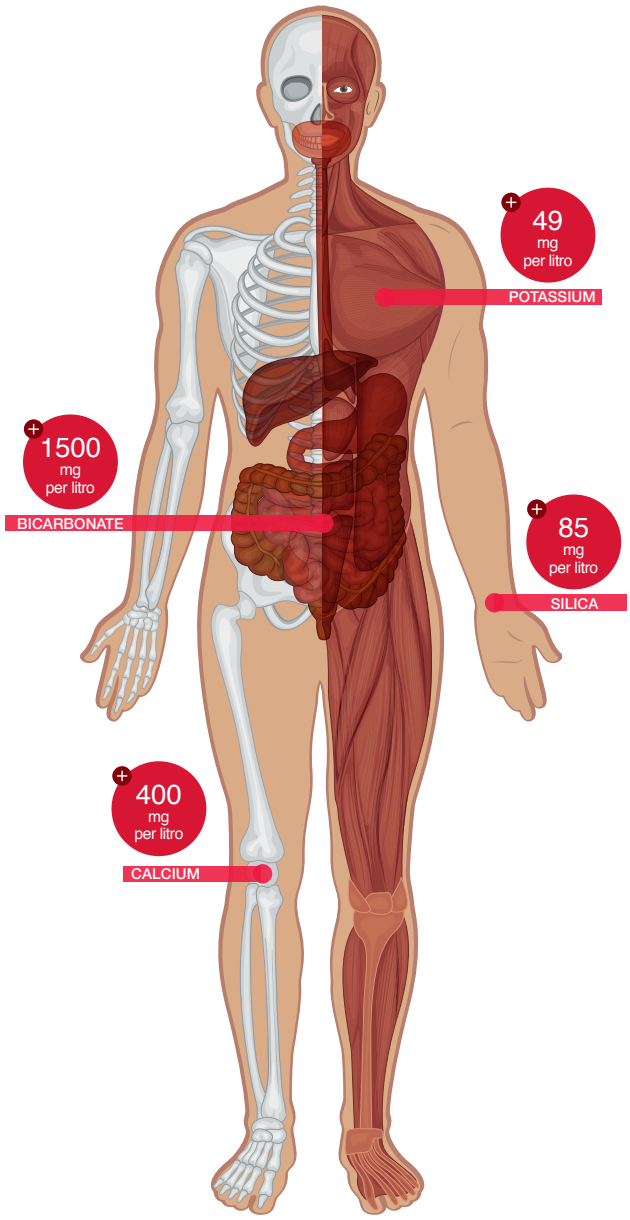
Thanks to the water's calcium content, one litre of Ferrarelle water contributes about 40% of the daily value for calcium, recommended by the Italian Society of Human Nutrition for a proper and balanced diet

MAGNESIUM
to help metabolism

CALCIUM
important for strong bones and teeth

POTASSIUM
helps to reinforce the muscolar system

BICARBONATE
helps to facilitate digestion



The Composition

Ferrarelle mineral water is moderately mineralized and naturally effervescent, containing both calcium bicarbonate and fluoride. The water's mineral composition is shown below in the analytical results of an official survey carried out by the Department of Preventive Medical Sciences at the University of Naples, "Federico II" on July 03, 2020.
The parameters are displayed on the labels of marketed products.

ANALYTICAL PARAMETERS	UNIT	VALUE FOUND
Conductivity at 20°C	µS/cm	1,800
pH		6.2
Total dissolved solids at 180°C	mg/L	1,350
Free Carbon Dioxide source (CO_2)	mg/L	2,591
Calcium	mg/L	400
Magnesium	mg/L	25
Sodium	mg/L	50
Potassium	mg/L	49
Hydrogen Carbonate	mg/L	1,500
Chloride	mg/L	16
Sulphate	mg/L	4.7
Nitrate	mg/L	3.5
Fluoride	mg/L	1.0
Silica	mg/L	85

CONTENT DECLARATION

The following tables report information about the materials and substances of different Ferrarelle's product formats. No hazardous materials and hazardous chemicals were use for product packaging.

DECLARATION OF PET 0.5L BOTTLE CONTENTS				
PRODUCT AND MATERIALS DESCRIPTION		FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT	MINERAL WATER	1	WATER	93.76%
PRIMARY PACKAGING	LABEL	0.001180	PAPER	0.11%
	PREFORM	0.024398	PET	2.29%
	CAPSULE	0.002700	HDPE	0.25%
			OIL	0.002%
	GLUE	0.000064	PE	0.001%
			RESIN	0.003%
SECONDARY PACKAGING	TERMO-FILM	0.005330	PE	0.50%
TERTIARY PACKAGING	FILM-TOP	0.000250	PE	0.02%
	EXTENSIBLE FILM	0.000882	PE	0.08%
	LABEL PALLET	0.000014	PAPER	0.001%
	INTERLAYERS	0.003930	CARDBOARD	0.37%
	PALLETS	0.027778	WOOD	2.60%
	TOTAL	***1.066526***		***100%***

Table 1 Content of Ferrarelle PET 0.5L bottle

DECLARATION OF PET 1.25L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION		FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT	MINERAL WATER	1	WATER	94.40%
PRIMARY PACKAGING	LABEL	0.000416	PE	0.04%
	PREFORM	0.022364	PET	2.11%
	CAPSULE	0.001120	HDPE	0.11%
			OIL	0.0002%
	GLUE	0.000006	PE	0.0001%
			RESIN	0.0003%
SECONDARY PACKAGING	HANDLE	0.000126	PAPER	0.01%
	HANDLE RIBBON	0.001758	PP	0.17%
	THERMO-FILM	0.002160	PE	0.20%
TERTIARY PACKAGING	FILM-TOP	0.000239	PE	0.02%
	EXTENSIBLE FILM	0.000513	PE	0.05%
	LABEL PALLET	0.000023	PAPER	0.002%
	INTERLAYERS	0.002625	CARDBOARD	0.25%
	PALLET	0.028000	WOOD	2.64%
TOTAL		***1.059350***		***100%***

Table 2 Content of Ferrarelle PET 1.25L bottle

DECLARATION OF PET 1.5L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION		FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT	MINERAL WATER	1	WATER	94.86%
PRIMARY PACKAGING	LABEL	0.000347	PE	0.03%
	PREFORM	0.018649	PET	1.77%
	CAPSULE	0.000900	HDPE	0.09%
			OIL	0.0002%
	GLUE	0.000009	PE	0.0001%
			RESIN	0.0004%
SECONDARY PACKAGING	HANDLE	0.000105	PAPER	0.01%
	HANDLE RIBBON	0.001474	PP	0.14%
	THERMO-FILM	0.001921	PE	0.18%
TERTIARY PACKAGING	FILM-TOP	0.000207	PE	0.02%
	EXTENSIBLE FILM	0.000460	PE	0.04%
	LABEL PALLET	0.000013	PAPER	0.001%
	INTERLAYERS	0.002293	CARDBOARD	0.22%
	PALLET	0.027778	WOOD	2.64%
TOTAL		***1.054155***		***100%***

Table 3 Content of Ferrarelle PET 1.5L bottle

DECLARATION OF VAP 0.75L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION			FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT		MINERAL WATER	1	WATER	61.26%
PRIMARY PACKAGING		LABEL	0.001147	PAPER	0.07%
		BOTTLE	0.564000	GLASS	34.55%
		TALOG CORK	0.002533	ALUMINIUM	0.12%
				PLASTIC	0.03%
		GLUE	0.000677	OIL	0.012%
				PE	0.007%
				RESIN	0.023%
		NECK-LABEL	0.000147	PAPER	0.01%
SECONDARY PACKAGING		CARDBOARD	0.029200	CARDBOARD	1.79%
		GLUE	0.000484	GLUE	0.03%
TERTIARY PACKAGING		FILM-TOP	0.000213	PE	0.01%
		EXTENSIBLE FILM	0.000572	PE	0.04%
		LABEL PALLET	0.000017	PAPER	0.00%
		PALLET	0.033333	WOOD	2.04%
		TOTAL	***1.632324***		***100%***

Table 4 Content of Ferrarelle VAP 0.75L bottle

DECLARATION OF VAR 0.5L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION			FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT		MINERAL WATER	1	WATER	56.04%
PRIMARY PACKAGING		LABEL	0.001220	PAPER	0.07%
		BOTTLE	0.566000	GLASS	31.72%
		TALOG CORK	0.003800	ALUMINIUM	0.17%
				PE	0.04%
		GLUE	0.000926	OIL	0.01%
				PE	0.01%
				RESIN	0.03%
SECONDARY PACKAGING		CASE	0.168000	HDPE	9.42%
		NECK-LABEL	0.000220	PAPER	0.01%
TERTIARY PACKAGING		LABEL PALLET	0.000018	PAPER	0.0010%
		EXTENSIBLE FILM	0.000412	PE	0.02%
		PALLET	0.043750	WOOD	2.45%
		TOTAL	***1.784346***		***100%***

Table 5 Content of Ferrarelle VAR 0.5L bottle

DECLARATION OF VAR 0.75L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION		FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT	MINERAL WATER	1	WATER	54.20%
PRIMARY PACKAGING	LABLE	0.001147	PAER	0.06%
	BOTTLE	0.564000	GLASS	30.57%
	TALOG CORK	0.002533	ALUMINIUM	0.11%
			PLASTIC	0.03%
	GLUE	0.000709	OIL	0.01%
			PE	0.01%
			RESIN	0.02%
	NECK-LABEL	0.000147	PAPER	0.01%
SECONDARY PACKAGING	CASE	0.217777	HDPE	11.80%
TERTIARY PACKAGING	LABEL PALLET	0.000020	PAPER	0.001%
	EXTENSIBLE FILM	0.000491	PE	0.03%
	PALLET	0.058333	WOOD	3.16%
	TOTAL	***1.845157***		***100%***

Table 6 Content of Ferrarelle VAR 0.75L bottle

DECLARATION OF VAR 1L BOTTLE CONTENTS

PRODUCT AND MATERIALS DESCRIPTION		FOR 1 LITRE OF PRODUCT (kg)	TYPE OF MATERIAL	% FOR 1L OF PRODUCT
PRODUCT	MINERAL WATER	1	WATER	60.19%
PRIMARY PACKAGING	LABEL	0.001272	PAPER	0.08%
	BOTTLE	0.455000	GLASS	27.39%
	CORONA CORK	0.002283	ALUMINIUM	0.12%
			PE	0.014%
			OIL	0.005%
	GLUE	0.000280	PE	0.003%
			RESIN	0.01%
	STAMP	0.000185	PAPER	0.01%
SECONDARY PACKAGING	CASE	0.158333	HDPE	9.53%
TERTIARY PACKAGING	LABEL PALLET	0.000020	PAPER	0.001%
	EXTENSIBLE FILM	0.000360	PE	0.02%
	PALLET	0.043750	WOOD	2.63%
	TOTAL	***1.661482***		***100%***

Table 7 Content of Ferrarelle VAR 1L bottle

DECLARATION OF CONTENTS

DECLARATION OF CONTENTS

The Adopted Methodology

The potential environmental impact of the selected product formats has been calculated according to the **International EPD System for Product Category Rules 2010:11 version 3.11 2019-09-06,** using **LCA** (*Life Cycle Assessment*) methods in accordance with ISO regulations 14040:2006 and 14044:2006, and the General Programme Instructions For Environmental Product Declarations, EPD, Version 3.01, 2019-09-18 (www.environdec.com).

SimaPro 9.1.0.11 used software owned by Altran Italia and Ecoinvent 3.6 database updated to 2019.

The LCA methodology is based on a systematic review in which all value chain processes are considered—from raw material extraction processes to the breakdown of products at the end of their life—to ascertain that they serve their intended function. The **environmental impact of the processes** that bring the product to market is evaluated according to energy consumption, materials used, and waste dispersed in the environment.

Boundaries of the System of Analysis

Manufacturing processes are quite similar for all kinds of format. Below, the production flow diagrams are differentiated for PET products and for glass bottles.

According to Chapter 4.3 of the PCR 2010:11, the life cycle has been divided into three macro-modules:

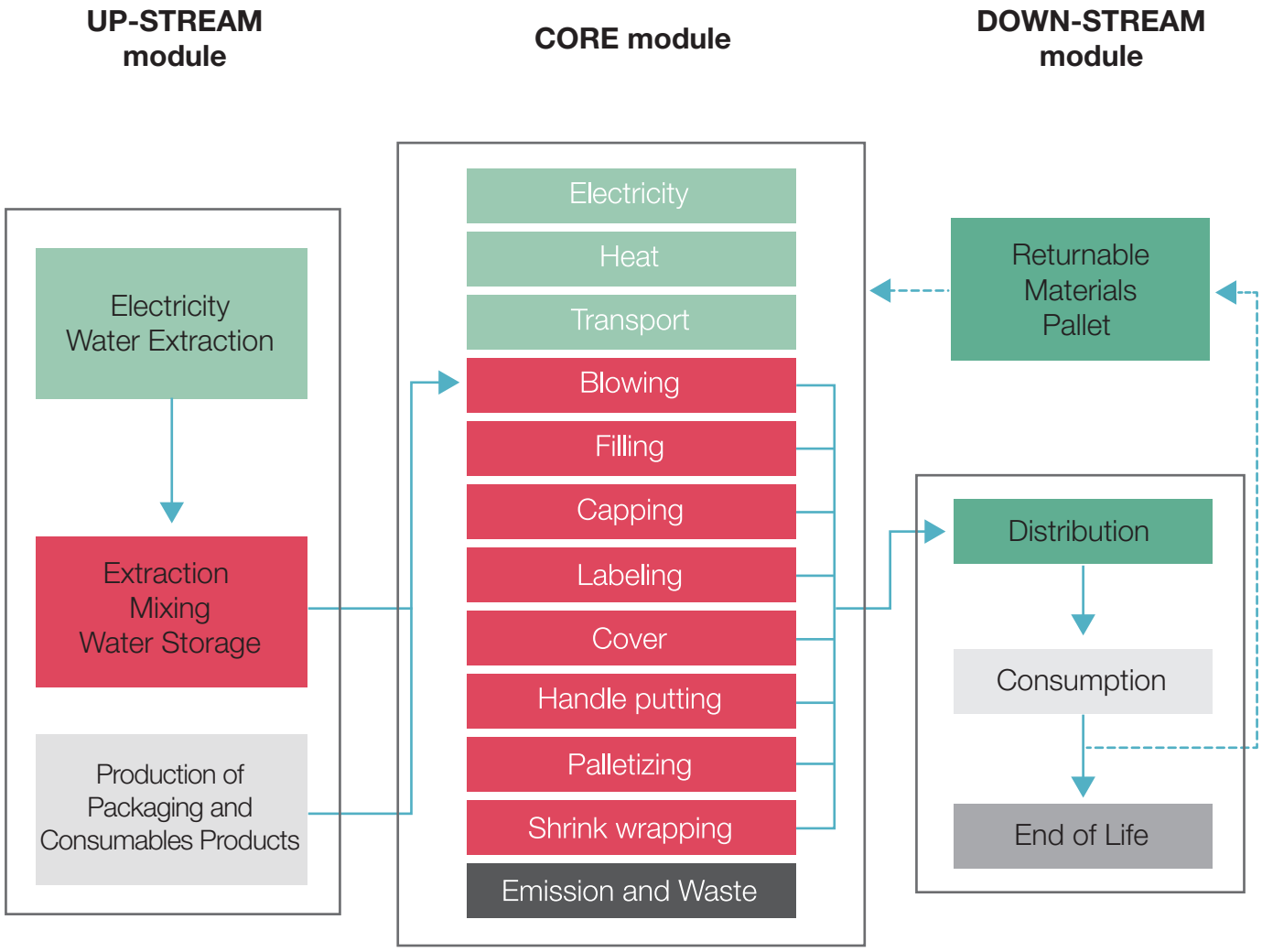


Figure 1 _ Product life cycle and flow chart of the manufacturing process for Ferrarelle's PET line

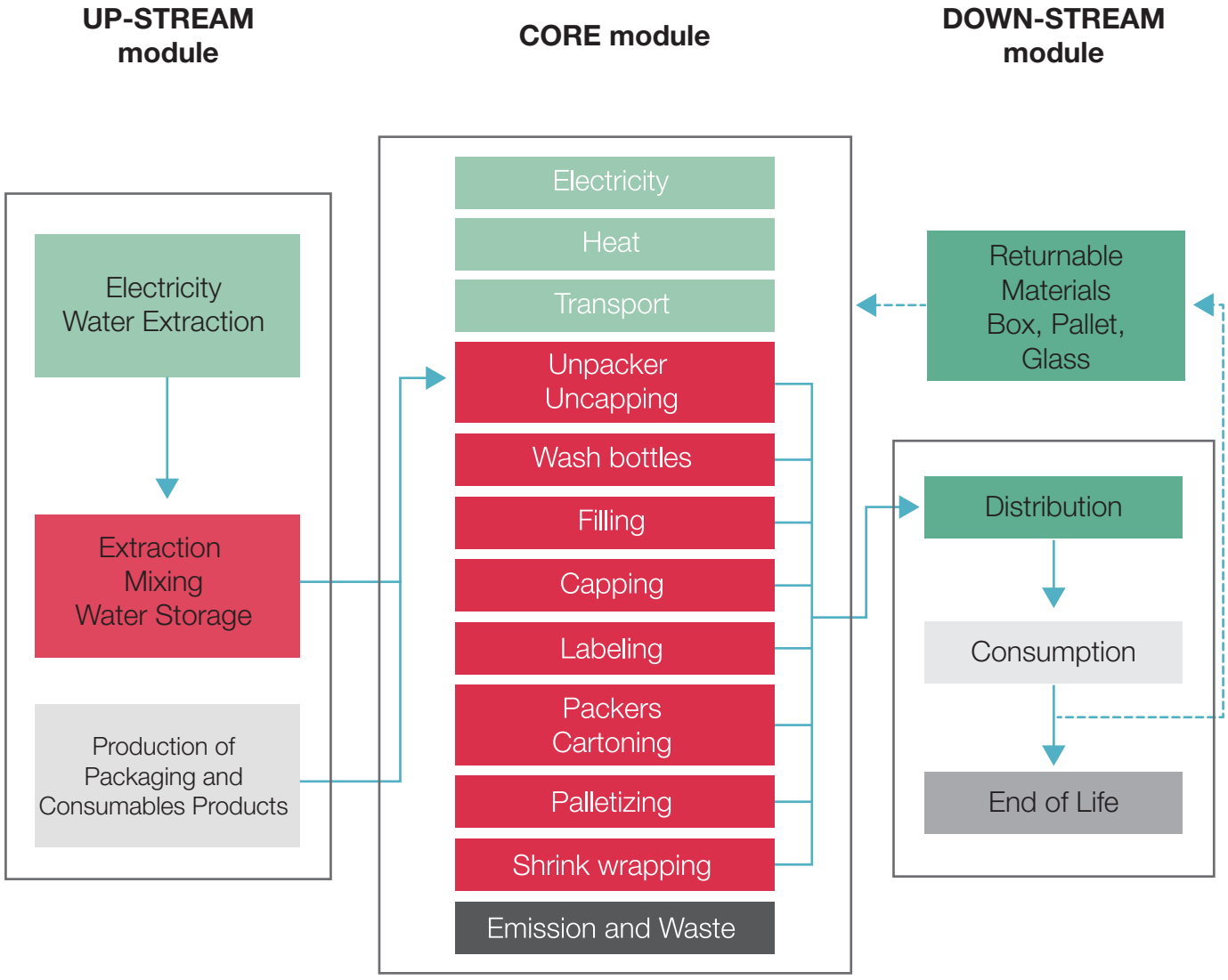


Figure 2 _ Product life cycle and flow chart of the manufacturing process for Ferrarelle's Glass line

UP-STREAM Module: The processes included in this module are

- The Extraction of water from source
- The production of packaging and consumer products
- The by-products and waste generated by these processes and their final treatment.

Core Module: The processes included in this module are

- The transport of packaging and consumables from suppliers' site to Ferrarelle plant
- Energy consumption for plant operations (electric and thermal)
- Plant water consumption and emissions
- The most frequent maintenance operations carried out at least every three years.
- The by-products and waste generated by these processes, their transport and their final treatment.

Down-stream Module: The processes included in this module are

- The Transport of finished product by road or by ship to distribution platforms (it was used the weighted average of the target to the distribution platforms)
- The Transport of finished product to the point of sale and from the point of sale to the final customer as required by Chapter 4.10.3 of the Reference PCR (for these two values the default parameters were used). For VAR formats, considering that most of products are delivered by distribution centers to HoReCa, the overall route does not include the contribution of the transport to the single user.
- The Transport of returning materials
  - *wooden pallet for PET and Glass bottles*
  - *the plastic cases and returnable bottles of VAR glass products*
- The post-consumer treatment of packaging

The urban waste statistics of the **Urban Waste Report of 2020** of **ISPRA** (*Istituto Superiore per la Protezione e la Ricerca Ambientale*) reported below can be referred to as data on the collection of packaging waste that is not recovered.
Ferrarelle's bottled liters ships in Italy.

Destination Urban Waste				
MATERIAL	LANDFILL	RECOVERY		
		TOTAL	Whereof at recycling	Whereof at energy recovery (Incineration)
PLASTIC	10.1%	89.9%	45.5%	44.4%
PAPER	11.6%	88.4%	80.8%	7.6%
WOOD	34.8%	65.2%	63.1%	2.1%
GLASS	22.7%	77.3%	77.3%	0.0%

Table 8 Destination Urban Waste

Exclusions
Consumption of water by the consumer
Construction of the company and its infrastructure
Production of plant equipment
Production of spare parts
Storage at final user

DATA QUALITY

The data from the **Upstream Module** were extrapolated from Ferrarelle's 2020 supply chain, including the Presenzano plant where a large part of the PET and preforms are produced and from the database provided by PCR. The data used in the Core Module were acquired in the field and released by Ferrarelle in 2020. Data used for the **DownStream** module are scenario-based and mostly refer to selected generic data.

Proxy Data does not exceed 10% on each impact category as required by PCR. In this study the electricity Mix MT ITA 2020 (Version 1.0, 2021-05-31 of Association of Issuing Bodies) is used by Ferrarelle as requested by cap. 4.10.1 e 4.10.2 of PCR 3.11, since all processes take place within the Italian territory.

For each product supplied to Ferrarelle in Upstream module (packaging /consumables), the average distance of the various suppliers from the Ferrarelle plant has been taken into account; for transport relating to the delivery of products, the specific data concerning the delivery of each packaging format to the different platforms has been taken into account, as required by the PCR.
For the transport of the product to the points of sale and to the final customer, the default data was used as shown in chapter 4.10.3 of the reference PCR.
Specifically, distribution only deliveries in Italy were considered, which represent over 99% of total shipments.

All data refer to 2020 year.

POTENTIAL ENVIRONMENTAL IMPACT AND RESOURCE CONSUMPTION

Categorized in Upstream - Core - Downstream Modules and divided according to type of packaging, the following tables show:

- *The consumption of renewable and non-renewable energy resources*
- *The consumption of renewable and non-renewable material resources*
- *The generation of hazardous and non-hazardous waste*
- *Water consumption and direct consumption of electricity*

The incidence of the following environmental impacts in relation to the product life cycle is summarized:

- *Global Warming*
- *Photochemical Oxidant Formation*
- *Acidification*
- *Eutrophication*
- *Abiotic depletion potential*

Any discrepancies between the values of the individual items and the total of the sums of the individual items are due to rounding decimal places.

PET 0.5L

Environmental impacts						
PARAMETER		**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.107444	0.022478	0.118597	0.248519
	Biogenic	kg CO_2 eq.	0.000234	0.000035	0.000703	0.000973
	Land use and land transformation	kg CO_2 eq.	0.000620	0.000002	0.000001	0.000623
	TOTAL	kg CO_2 eq.	0.108299	0.022515	0.119301	0.250114
Acidification potential (AP)		kg SO_2 eq.	0.000429	0.000071	0.000360	0.000859
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000096	0.000022	0.000065	0.000183
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000033	0.000003	0.000009	0.000045
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000424	0.000046	0.000425	0.000896
Abiotic depletion potential – Elements		kg Sb eq.	0.000004	0.000000	0.000000	3.59E-06
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	2.567332	0.338722	1.326668	4.232721
Water scarcity potential		m3 eq.	0.150849	-0.016281	0.004493	0.139061

Use of resources						
PARAMETER		**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.225955	0.023597	0.001968	0.251520
	Used as raw materials	MJ, net calorific value	0.082719	0.002096	0.000258	0.085073
	TOTAL	MJ, net calorific value	0.308674	0.025693	0.002226	0.336593
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	1.174383	0.391330	1.387291	2.953004
	Used as raw materials	MJ, net calorific value	1.619995	0.000000	0.000000	1.619995
	TOTAL	MJ, net calorific value	2.794378	0.391330	1.387291	4.572999
Secondary material		kg	0.003663	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.007731	0.001462	0.000393	0.009586

Waste production and output flows					
PARAMETER	**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Hazardous waste disposed	kg	0.000053	0.000000	0.000004	0.000057
NON - hazardous waste disposed	kg	0.002226	0.000902	0.004489	0.007618
Radioactive waste disposed	kg	0.000002	0.000001	0.000010	0.000013
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.002575	0.000000	0.002575
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

PET 1.25L

Environmental impacts						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.093037	0.021046	0.131701	0.245784
	Biogenic	kg CO_2 eq.	0.000134	0.000035	0.000441	0.000611
	Land use and land transformation	kg CO_2 eq.	0.000480	0.000002	0.000001	0.000483
	TOTAL	kg CO_2 eq.	0.093651	0.021083	0.132143	0.246877
Acidification potential (AP)		kg SO_2 eq.	0.000390	0.000065	0.000427	0.000882
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000060	0.000021	0.000074	0.000155
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000027	0.000003	0.000011	0.000041
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000404	0.000039	0.000503	0.000946
Abiotic depletion potential – Elements		kg Sb eq.	0.000001	0.000000	0.000000	5.90E-07
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	2.050810	0.318633	1.567404	3.936847
Water scarcity potential		m3 eq.	0.141623	-0.016275	0.002619	0.127967

Use of resources						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.141111	0.023568	0.002298	0.166977
	Used as raw materials	MJ, net calorific value	0.051555	0.002092	0.000303	0.053950
	TOTAL	MJ, net calorific value	0.192666	0.025660	0.002601	0.220927
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	0.902930	0.370324	1.638990	2.912244
	Used as raw materials	MJ, net calorific value	1.322046	0.000000	0.000000	1.322046
	TOTAL	MJ, net calorific value	2.224976	0.370324	1.638990	4.234290
Secondary material		kg	0.005273	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.005596	0.001696	0.000462	0.007754

Waste production and output flows					
PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	0.000077	0.000000	0.000004	0.000082
NON - hazardous waste disposed	kg	0.001572	0.000901	0.003570	0.006043
Radioactive waste disposed	kg	0.000001	0.000001	0.000012	0.000014
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.002575	0.000000	0.002575
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

PET 1.5L

Environmental impacts						
PARAMETER		**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.078707	0.020945	0.103981	0.203633
	Biogenic	kg CO_2 eq.	0.000115	0.000035	0.000381	0.000531
	Land use and land transformation	kg CO_2 eq.	0.000400	0.000002	0.000001	0.000402
	TOTAL	kg CO_2 eq.	0.079222	0.020982	0.104363	0.204567
Acidification potential (AP)		kg SO_2 eq.	0.000331	0.000064	0.000329	0.000724
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000050	0.000021	0.000057	0.000128
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000023	0.000003	0.000008	0.000034
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000343	0.000039	0.000385	0.000767
Abiotic depletion potential – Elements		kg Sb eq.	0.000000	0.000000	0.000000	3.05E-07
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	1.721112	0.317210	1.228277	3.266599
Water scarcity potential		m3 eq.	0.132434	-0.016275	0.002298	0.118457

Use of resources						
PARAMETER		**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.126589	0.023566	0.001803	0.151958
	Used as raw materials	MJ, net calorific value	0.047563	0.002092	0.000238	0.049892
	TOTAL	MJ, net calorific value	0.174151	0.025658	0.002041	0.201850
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	0.766834	0.368837	1.284378	2.420049
	Used as raw materials	MJ, net calorific value	1.101033	0.000000	0.000000	1.101033
	TOTAL	MJ, net calorific value	1.867868	0.368837	1.284378	3.521082
Secondary material		kg	0.004506	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.004997	0.001695	0.000362	0.007055

Waste production and output flows					
PARAMETER	**UNIT**	**UPSTREAM**	**CORE**	**DOWNSTREAM**	**TOTAL**
Hazardous waste disposed	kg	0.000067	0.000000	0.000003	0.000070
NON - hazardous waste disposed	kg	0.001327	0.000901	0.002981	0.005210
Radioactive waste disposed	kg	0.000001	0.000001	0.000009	0.000011
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.002575	0.000000	0.002575
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

VAP 0.75L

Environmental impacts						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.625170	0.074123	0.142118	0.841411
	Biogenic	kg CO_2 eq.	0.006220	0.000043	0.004785	0.011048
	Land use and land transformation	kg CO_2 eq.	0.001172	0.000002	0.000001	0.001175
	TOTAL	kg CO_2 eq.	0.632562	0.074168	0.146904	0.853634
Acidification potential (AP)		kg SO_2 eq.	0.004705	0.000152	0.000604	0.005461
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000762	0.000034	0.000110	0.000906
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000184	0.000007	0.000016	0.000207
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.002510	0.000135	0.000830	0.003475
Abiotic depletion potential – Elements		kg Sb eq.	0.000022	0.000000	0.000000	2.17E-05
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	8.957700	1.124776	1.955547	12.038023
Water scarcity potential		m3 eq.	0.221782	0.177286	0.091245	0.490314

Use of resources						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	1.550374	0.029961	0.003120	1.583455
	Used as raw materials	MJ, net calorific value	0.649846	0.002578	0.000375	0.652799
	TOTAL	MJ, net calorific value	2.200220	0.032539	0.003495	2.236254
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	9.550671	1.199851	2.045559	12.796080
	Used as raw materials	MJ, net calorific value	0.062991	0.000000	0.000000	0.062991
	TOTAL	MJ, net calorific value	9.613661	1.199851	2.045559	12.859071
Secondary material		kg	-	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.027760	0.003773	0.000570	0.032103

Waste production and output flows					
PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	0.000014	0.000001	0.000005	0.000021
NON - hazardous waste disposed	kg	0.033153	0.001231	0.137140	0.171525
Radioactive waste disposed	kg	0.000027	0.000002	0.000014	0.000044
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.002575	0.000000	0.002575
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

VAR 0.5L

Environmental impacts

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.099763	0.067075	0.084632	0.251469
	Biogenic	kg CO_2 eq.	0.000615	0.000047	0.000206	0.000868
	Land use and land transformation	kg CO_2 eq.	0.000228	0.000002	0.000001	0.000231
	TOTAL	kg CO_2 eq.	0.100606	0.067124	0.084838	0.252568
Acidification potential (AP)		kg SO_2 eq.	0.000583	0.000121	0.000317	0.001020
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000151	0.000030	0.000054	0.000235
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000032	0.000006	0.000008	0.000046
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000372	0.000093	0.000387	0.000852
Abiotic depletion potential – Elements		kg Sb eq.	0.000011	0.000000	0.000000	1.14E-05
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	2.005254	1.029394	1.059524	4.094172
Water scarcity potential		m3 eq.	0.122558	0.178089	0.005523	0.306171

Use of resources

PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.268563	0.032952	0.001554	0.303068
	Used as raw materials	MJ, net calorific value	0.107597	0.002835	0.000204	0.110637
	TOTAL	MJ, net calorific value	0.376160	0.035787	0.001758	0.413705
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	1.598804	1.105378	1.107931	3.812113
	Used as raw materials	MJ, net calorific value	0.587996	0.000000	0.000000	0.587996
	TOTAL	MJ, net calorific value	2.186800	1.105378	1.107931	4.400108
Secondary material		kg	-	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.008243	0.003933	0.000310	0.012486

Waste production and output flows

PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	0.000010	0.000001	0.000003	0.000014
NON - hazardous waste disposed	kg	0.006907	0.001332	0.011502	0.019741
Radioactive waste disposed	kg	0.000004	0.000001	0.000008	0.000013
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.041491	0.000000	0.041491
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

VAR 0.75L

Environmental impacts						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.096953	0.066968	0.088122	0.252043
	Biogenic	kg CO_2 eq.	0.000579	0.000047	0.000186	0.000812
	Land use and land transformation	kg CO_2 eq.	0.000181	0.000002	0.000001	0.000184
	TOTAL	kg CO_2 eq.	0.097713	0.067018	0.088309	0.253040
Acidification potential (AP)		kg SO_2 eq.	0.000551	0.000120	0.000323	0.000994
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000131	0.000030	0.000056	0.000217
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000031	0.000006	0.000008	0.000045
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000364	0.000093	0.000394	0.000851
Abiotic depletion potential – Elements		kg Sb eq.	0.000007	0.000000	0.000000	7.40E-06
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	2.112537	1.027903	1.078177	4.218617
Water scarcity potential		m3 eq.	0.125691	0.178089	0.005370	0.309150

Use of resources						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.273767	0.032949	0.001584	0.308300
	Used as raw materials	MJ, net calorific value	0.115956	0.002835	0.000208	0.118999
	TOTAL	MJ, net calorific value	0.389723	0.035784	0.001792	0.427299
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	1.555983	1.103818	1.127436	3.787238
	Used as raw materials	MJ, net calorific value	0.737755	0.000000	0.000000	0.737755
	TOTAL	MJ, net calorific value	2.293738	1.103818	1.127436	4.524993
Secondary material		kg	-	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.007816	0.003932	0.000317	0.012065

Waste production and output flows					
PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	0.000007	0.000001	0.000003	0.000011
NON - hazardous waste disposed	kg	0.005437	0.001332	0.011800	0.018569
Radioactive waste disposed	kg	0.000003	0.000001	0.000008	0.000013
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.041491	0.000000	0.041491
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

VAR 1L

Environmental impacts						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Global warming potential (GWP)	Fossil	kg CO_2 eq.	0.077596	0.065933	0.079695	0.223197
	Biogenic	kg CO_2 eq.	0.000439	0.000047	0.000194	0.000680
	Land use and land transformation	kg CO_2 eq.	0.000137	0.000002	0.000001	0.000140
	TOTAL	kg CO_2 eq.	0.078145	0.065982	0.079890	0.224017
Acidification potential (AP)		kg SO_2 eq.	0.000448	0.000116	0.000294	0.000858
Eutrophication potential (EP)		kg PO_4^{3-} eq.	0.000100	0.000029	0.000050	0.000179
Formation potential of tropospheric ozone (POCP)		kg C_2H_4 eq.	0.000025	0.000006	0.000007	0.000038
Formation potential of tropospheric ozone (POFP)		kg NMVOC	0.000289	0.000088	0.000347	0.000724
Abiotic depletion potential – Elements		kg Sb eq.	0.000007	0.000000	0.000000	6.67E-06
Abiotic depletion potential – Fossil fuels		MJ, net calorific value	1.625186	1.013369	1.003730	3.642285
Water scarcity potential		m3 eq.	0.117681	0.178093	0.004580	0.300354

Use of resources						
PARAMETER		UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Primary energy resource Renewable	Use as energy carrier	MJ, net calorific value	0.236648	0.032929	0.001477	0.271054
	Used as raw materials	MJ, net calorific value	0.101501	0.002832	0.000194	0.104527
	TOTAL	MJ, net calorific value	0.338149	0.035761	0.001671	0.375581
Primary energy resource NON renewable	Use as energy carrier	MJ, net calorific value	1.237791	1.088621	1.049610	3.376022
	Used as raw materials	MJ, net calorific value	0.531419	0.000000	0.000000	0.531419
	TOTAL	MJ, net calorific value	1.769209	1.088621	1.049610	3.907440
Secondary material		kg	-	-	-	-
Renewable secondary fuels		MJ, net calorific value	-	-	-	-
NON - renewable secondary fuels		MJ, net calorific value	-	-	-	-
Net use of fresh water		m3	0.006491	0.003928	0.000296	0.010715

Waste production and output flows					
PARAMETER	UNIT	UPSTREAM	CORE	DOWNSTREAM	TOTAL
Hazardous waste disposed	kg	0.000006	0.000001	0.000003	0.000010
NON - hazardous waste disposed	kg	0.004617	0.001331	0.009417	0.015364
Radioactive waste disposed	kg	0.000003	0.000001	0.000007	0.000012
Components for reuse	kg	-	-	-	-
Material for recycling	kg	0.000000	0.041491	0.000000	0.041491
Material for energy recovery	kg	0.000000	0.000001	0.000000	0.000001
Exported energy, electricity	MJ	-	-	-	-
Exported energy, thermal	MJ	-	-	-	-

ENVIRONMENTAL PERFORMANCE COMPARISON

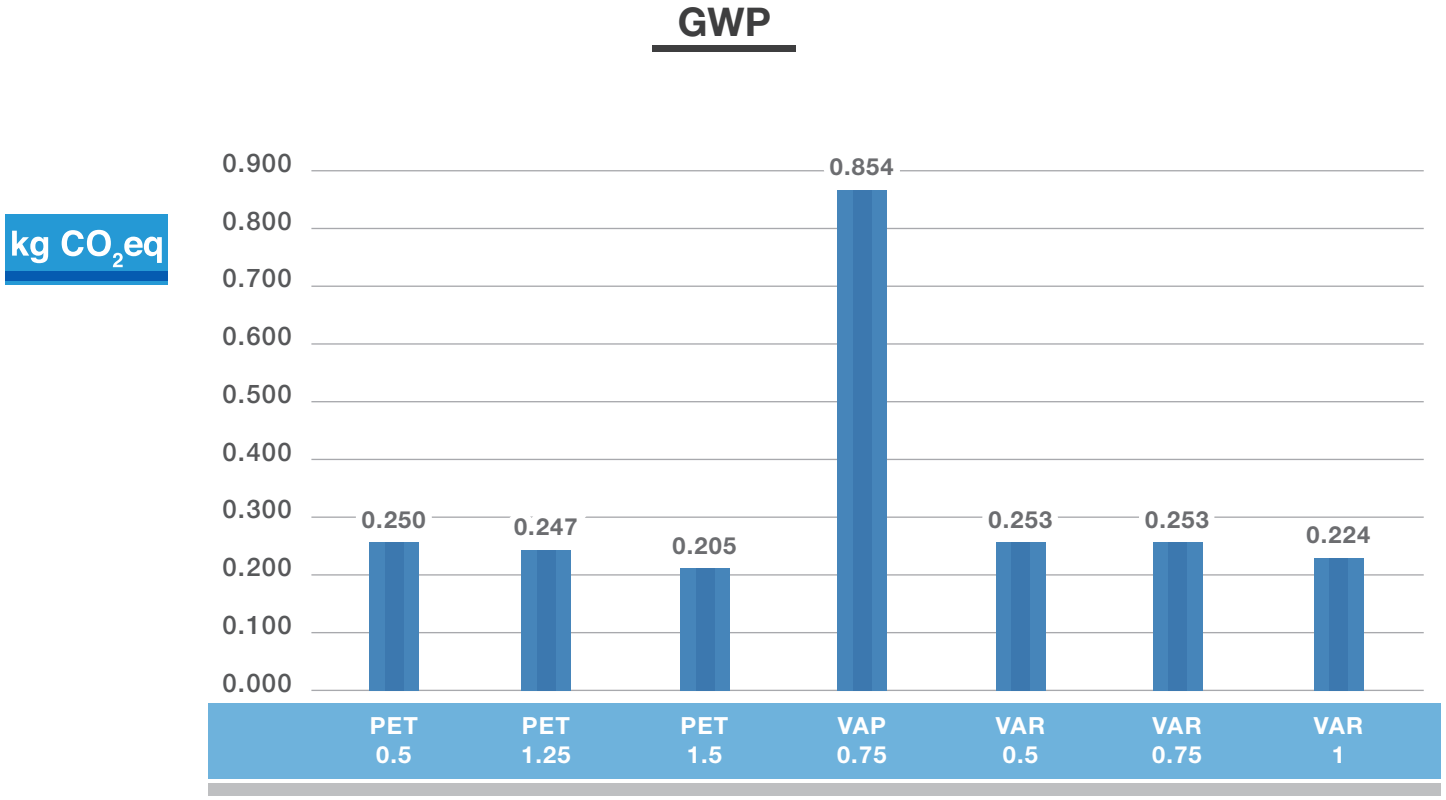
For PET formats the environmental impacts decrease with the format growth, as can be noticed by the Total GWP parameter. The environmental impacts related to Upstream and Core phases show a reduction when the PET bottle volume increases (from **PET 0.5** to **PET 1.5**). This is due to the type of declared unit used in the study, 1 litre of mineral water, leading to a decrease in the specific environmental impacts when the packaging size grows. Regarding the Downstream phase, the impacts are highly dependent on shipments to the customer. The greater is the distance from the Riardo plant, the more the impact grows.

The VAP glass format shows the highest impacts due to the lack of post-consumer reuse of the glass bottle.

On the other hand, VAR glass format impacts have a trend that is highly dependent on shipment to the customer (downstream stage). Therefore, the Downstream environmental impact may affect in a not proportional way to packaging size. As seen for PET, the environmental impacts related to Upstream and Core modules reduce their contribution when the packaging format increases in size.

The overall GWP values associated with each bottle format are shown in the following figure.

GLOBAL warming potential



THE USE OF CLEAN ENERGY

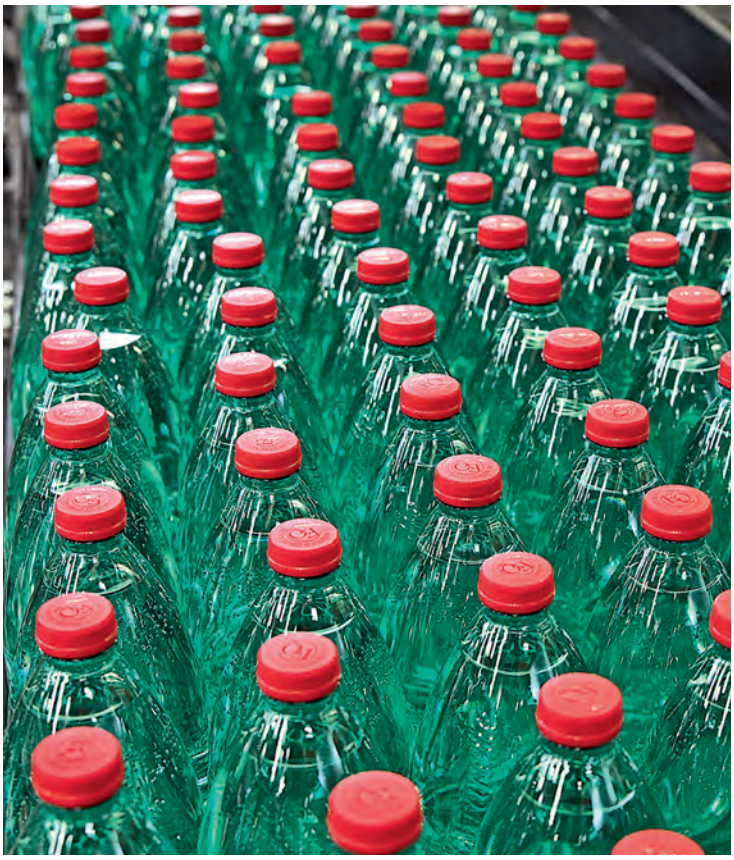
In December 2008, Ferrarelle's Riardo plant stepped into the future as the host of a significant ecoinnovation: one of the most important photovoltaic plants in **CENTRAL SOUTHERN ITALY.**

The PV installation, realized with the technical assistance of Siemens experts, comprises 4,500 Sharp panels that span an area of 16 thousand square meters.

The plant generates 1 MW of power, enough electricity to provide for the annual consumption of 400 families. About 7.38% of total electric consumption is supplied by the PV plant.

INVESTMENT IN TECHNOLOGICAL IMPROVEMENT

Since **2007**, important technological innovation projects have been realized at the **Riardo** production site in order to improve productivity and the variety of marketed products, to reduce the costs of production by improving efficiency and optimizing the use of energy resources and raw materials, and lastly, to improve monitoring and preventative measures related to food safety.
The launch of a multi-format line of glass bottles in 2007, a similar launch in the **PET** market in 2008, the launch of the new **PET line 5** in 2012 and the launch of the **PET 6** line dedicated to the production of **1.5 l** in 2016.



In 2017 the bottling line of disposable glass containers, mainly destined for the foreign market and for the production of small batches, became fully operational.

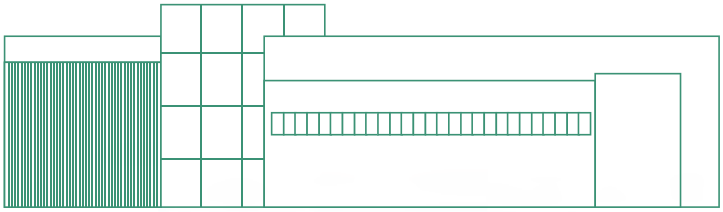
New production lines that employ the latest technology have replaced old lines, and as a result, the incidence of the issues identified in the environmental impact assessment has been reduced.
The new productive lines have chiefly contributed to:

- Reduced energy consumption (reduction in the consumption of water and electricity and the production of steam);
- Reduced consumption of PET and HDPE plastics used for packaging, through the reduction of the weight of preforms and HDPE caps.

The table below reports the standard weight of the preforms and caps of 1.5 l and 0.5 l plastic bottles – the leading designs of Ferrarelle's line of PET products – data 2020) - in 2007, (i.e., before technology investments went into effect) and in 2020, (current manufacturing standards were already in place) both for preforms and caps.

	PET 1.5 L			PET 0.5 L		
	Standard weight (in g)		Weight reduction percentage	Standard weight (in g)		Weight reduction percentage
MATERIAL	2007	2020	%	2007	2020	%
PET (preforms)	37	28.46	23.1	23	12.99	43.5
HDPE (cap)	2.3	1.35	41.3	2.3	1.39	39.5

PRESENZANO



In **2018** a new Ferrarelle S.p.A. production site, placed in Presenzano (CE) about 20 km from Riardo bottling site, has been completed. All post-consumer PET bottle wastes, obtained from municipal waste collection and from selection activity of some consortium recognised by Environmental Ministry, will be sent to the new factory of Presenzano.
Here they will be processed in order to obtain a new primary material, in scales, obtained from recycling process, ready to be reused to produce new objects as well as packaging suitable to get into contact with food and other materials. In new Presenzano factory a part of PET scales will be used internally to produces PET preforms, the semifinished products used to inflate bottles, to be delivered to Riardo bottling site.

The plant of Presenzano represents an additional tile to environmental sustainability policy that Ferrarelle is pursuing, becoming one of the first European company in the field of beverage committed into reduction of plastics environmental impact, through a circular economy **“bottle to bottle”** integrated.

In 2020, the Presenzano plant provided the Riardo plant with around 75% of the total PET preforms, while the remaining amount (25% circa) of virgin PET was purchased by Riardo from external suppliers. Therefore, Presenzano provides PET preform to Riardo, deriving from recycled material (circa 25%) and from virgin material by the remaining 75%.

DIFFERENCES WITH PREVIOUS EPD VERSIONS

Comparing last year results, it could be highlighted that most of the impacts are comparable with each other. However, for some impacts' indicators the variation exceeds the 10%. Moreover, the EPD was updated. The variations are accountable to the database variation, updated as Ecoinvent 3.2 a Ecoinvent 3.6.

With regards to Water Scarcity parameter, most of the contribution is due to the Upstream phase in particular to the drainage of water from the wells. For PET formats the indicator switch to a negative value in the Core phase since in this phase water is re-introduced into the environment (indicator with negative sign). This counterbalances the withdrawals of the same phase (indicator with positive sign). This is also true for all glass formats but, since heat is required for bottles washing, the withdrawal of water is higher than the other PET formats, leading to a positive sign of the indicator.

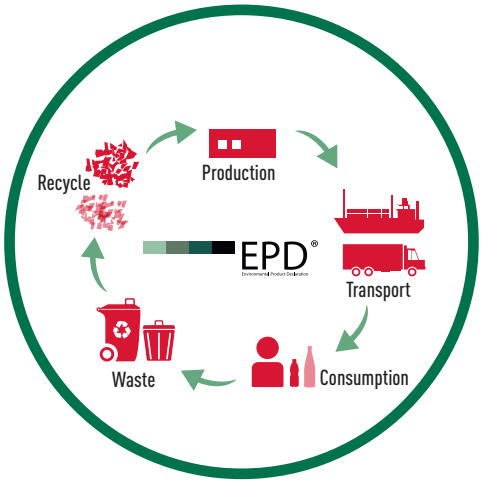
In 2020, the Presenzano plant supplied approximately 75% of the total virgin PET preforms to the Riardo plant.
The short distance between the two implants contributed to decreasing the necessary kg-km to provide the PET preforms to Ferrarelle, compared to the studies prior to 2020. From this year, the impacts linked to the Presenzano's productive cycle were included, which were found slightly higher than up to last year. Nevertheless, it could be highlighted that the reliability of these year primary data from Presenzano is higher, since last year's was redacted with data from a database.

ADDITIONAL INFORMATION

In the table, the content of the added recycled PET over the total packaging of each single bottle is reported *(*the relative weight of the mineral water contained in the bottle and the transportation pallet are excluded).*

Format	Recycled PET over total packaging weight % pallet excluded
PET 0.5	9.065%
PET 1.25	16.510%
PET 1.5	16.874%

Concerning the transport of the products from stores to the single user, the transport of the single liter of water and the linked packaging was considered, without the related "six bottle package".



OTHER INFORMATION

CERTIFICATION

Ferrarelle mineral water and its Riardo's production site comply with the requirements of the following certifications:

Quality Management System Certification - UNI EN ISO 9001:2015, Certificate IT 95/0006, issued by SGS ITALIA
Environmental Management System Certification - UNI EN ISO 14001:2015, Certificate IT 05/0153, issued by SGS ITALIA
HACCP Auto control System Certification according to the technical specification of the Codex Alimentarius, issued by SGS ITALIA
Food Safety and Manufacturing Hygiene Certification in accordance with the U.S. FOOD & DRUG ADMINISTRATION, regulation in title 21, code of Federal regulations, chapter 1, Parts 165.110 B, Certificate issued by NSF International
Manufacturing Certification for the Control System that guarantees the natural effervescence of Ferrarelle mineral water, Certificate 15/0586, issued by SGS ITALIA
Kosher certification by the Orthodox Union Certificate, issued by the Union of Orthodox Jewish Congregations of America from 2007
BRC Certification (Global Standard for Food Safety), issued by SGS ITALIA
IFS Certification (International Food Standard), issued by SGS ITALIA
Traceability System Certification – ISO 22005 : 2007, issued by RINA SERVICES
HALAL Certification issued by HALAL ITALIA
EAC Certification for Russian market certificate
EQM Certification for United Arab Emirates Market certificate validated by ESMA
Sustainability report verified by Rina Services
Natural reinforced sparklingness from Ferrarelle mineral water from 2020

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GLOSSARY

Acidification Potential (AP): The acidification indicator measures the emission of specific acidifying substances, such as nitrogen oxides and sulphur oxides, into the air. The reference substance is SO_2 and the weight coefficient is called the acidification potential.

BOM: Bill Of Material.

Eutrophication Potential (EP): Growth of living organisms is limited by the intake of several essential nutrients (N and P). The release of these substances into the environment reduces the limit on growth, and consequently, available O_2 decreases (due to an increase in BOD and COD). In order to standardize the eutrophication effect (NP, Nutrification Potential) the identified substances are equivalently expressed as kilograms of NO_3^- or PO_4^{3-} eq.

Global Warming Potential (GWP): refers to the contribution of atmospheric gas emissions to the greenhouse effect. There are several gases that have a Global Warming Potential relative to that of CO_2, which has a reference potential of 1. Each value of GWP is calculated for a specific time interval.

Primary Packaging: packaging that is in contact with the food product and serves a protective function.

Secondary Packaging: wrapping that encases several units of the final product and is used to optimize transportation space over short distances.

Tertiary Packaging: packaging that contains units of secondary packaging and is designed to transport large quantities of product over long distances and be handled by special machines.

Pallet: equipment used to support materials that are to be stored in factories and manoeuvred and transported by various means.

PET: Polyethylene Terephthalate.

Photochemical Ozone Creation Potential (POCP): Combustion processes lead to the formation of non-combustive HC and NOx. These molecules react together with solar radiation and generate O_3, a powerful oxidant in the troposphere that causes respiratory system disorders. The gas used as the basis for the standardization is ethylene.

Preform: a semi-worked product from which PET plastic bottles are produced.

VAP: one-way glass.

VAR: returnable glass.

HoReCa: Hotel Restaurant and Catering.

PROGRAMME INFORMATION

Address of programme operator: EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden, E-mail: info@environdec.com
“EPDs within the same product category but from different programmes may not be comparable.”
The EPD owner has the sole ownership, liability and responsibility of the EPD.

Product category rules (PCR): PCR 2010:09 Bottled waters, not sweetened or flavoured, version 3.11. un cpc 24410

PCR review was conducted by:
The Technical Committee of the International EPD® System. Chair: Filippo Sesso Contact via info@environdec.com

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

☐ processo di certificazione EPD ..... X Verifica EPD

Third party verifier:

RINA Services S.p.A. - Via Corsica 12, I - 16128 Genova (Italia)
Tel: +39.010.53851 - Fax: +39.010.5351000 - www.rina.org
Accredia Accreditamento Reg n: 001H

Procedure for follow-up of data during EPD validity involves third party verifier:

X SI ☐ NO

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