



# EPD

## Environmental Product Declaration



### NOVELLINI

#### Shower enclosures

**Declaration in compliance with ISO 14025 and EN 15804:2012+A2:2019**

Program Operator .....	EPDIItaly
Publisher .....	EPDIItaly
Declaration number .....	Novellini 01_Rev. 01
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# GENERAL INFORMATION

<b>Program Operator</b>	<p><b>EPDItaly</b> Via Gaetano De Castillia 10, 20124 Milano (MI), Italia www.epditaly.it</p>
<b>EPD Owner</b>	<p><b>Novellini S.p.A.</b> Via Mantova 1023, Romanore di Borgo Virgilio (MN) www.novellini.it</p>
<b>Products</b>	<p>Shower enclosures Lunes 2.0 A, 90x90 cm Lunes 2.0 G+F, 90x90 cm Kuadra 2.0 2PH, 120x80 cm Kuadra 2.0 G+F, 90x90 cm Young 1BS, 90 cm Young G+F, 90x90 cm Opera PH+FH, 120x80 cm Kuadra H, 120 cm Giada H, 120 cm</p>
<b>UN CPC Code</b>	371 – Glass and glass products
<b>Production Unit</b>	Via Petrarca 270, Romanore di Borgo Virgilio (MN)
<b>Independent verification</b>	<p>This declaration is in compliance with ISO 14025 and EN 15804:2012+A2:2019, with PCR ICMQ-001/15 and Program Guidelines of EPDItaly, Revision 5.2 of 16.02.2022.</p> <p>Independent external verification of the declaration and data, according to ISO 14025:2010.  <input type="checkbox"/> internal <input checked="" type="checkbox"/> external            Verification performed by ICMQ S.p.A., Via Gaetano De Castillia 10, 20124 Milano (MI), Italia. Accredited by ACCREDIA.</p>
<b>Comparability</b>	<p>EPDs published within the same product category, but from different Program Operators, may not be comparable. In particular, EPDs of construction products may not be comparable if they do not comply with EN 15804:2012+A2:2019.</p>
<b>Responsability</b>	<p>Novellini S.p.A. relieves EPDItaly from any non-compliance with the environmental legislation self-declared by the manufacturer himself. The declaration Owner will be responsible for the information and supporting evidence; EPDItaly declines all responsibility regarding the manufacturer's information, data and results of the life cycle assessment.</p>
<b>Reference documents</b>	<p>PCR ICMQ-001/15 – Construction products and services, Version 3 of 02.12.2019, valid until 01.12.2024;</p> <p>Program Guidelines of EPDItaly, Revision 5.2 of 16.02.2022.</p>
<b>Company contacts</b>	<p><b>Novellini S.p.A.</b> Roberto Onori Head of Research and development r.onori@novellini.it</p>
<b>Technical support</b>	<p>Development of the Life Cycle Assessment and EPD Arch. Michele Paleari – michelepaleariarch@gmail.com</p>



# COMPANY

The Novellini Group is European leader in the production of shower enclosures, complete cubicles and whirlpool baths, with plants in Italy, branch offices in major European countries and sales offices around the world.

Family values underlie and steer the Novellini family business Generation after generation. Passion and commitment, innovation and creativity, as well as a relentless attention to the customer needs, these are the values Novellini pursues.



**1°**

**THE BIGGEST EUROPEAN PRODUCER**



**157.000.000**

**CONSOLIDATED TURNOVER**



**50**

**ACTIVE IN 50 COUNTRIES**



**733**

**EMPLOYEES**



**9.000**

**CLIENTS**



**15**

**DAILY DELIVERED TRUCKS**



**10.000 M<sup>2</sup>**

**AUTOMATED WAREHOUSE**



**80.000**

**PRODUCTS IN STOCK**



**250.000 M<sup>2</sup>**

**SURFACE COVERED AREA**



**1.000.000**

**PRODUCTS PER YEAR**



## MISSION

With enthusiasm, team work and values, we wish to improve the lives of everyone in the world in search of excellence for their homes and families, and aim to do so by using the best in technology, further enhanced by passion and intellectual involvement, born from a quest for beauty in all that we do.



## VISION

To be the reference point for excellence in bathroom furnishings and the most innovative company, proposing better products and better services. To thus grow and become a leader throughout the world, creating value for the resources involved in our activity and for our country.



## CORE VALUES

Our Core values are a passion for excellence – meaning a love of beauty and fine workmanship – and ethics – meaning long-term worth through sustainability, transparency and valuing people. We want to put mankind and quality of life at the centre of all our choices, ever driven by a passion for what we do.

# COMPANY



## A FAMILY STORY

Each of our creations carries within itself the soul and values of the family. The passion and vision of the people who are part of it represent a story of tradition and identity. A shared ambition constantly drives us towards innovation. **For more than 55 years, we have been looking after people's well-being.**

## FOCUS ON QUALITY OF LIFE

Improving people's quality of life. This is our daily mission. With passion and dedication we go in search of the beautiful and the well made, offering high quality products, services and solutions. At the centre of our choices is always the wellbeing and enhancement of the person. Looking to the future, but with firm roots in the past, we want to be the point of reference for excellence and culture in bathroom furnishings.

## THE BRANDS THAT ARE PART OF THE NOVELLINI GROUP



Production of shower enclosures, bathtubs, shower trays, cabins, outdoor spas, accessories and columns



Furniture production



Production of aluminium profiles



Production of aluminium billets



GreenCoat  
PVD chrome plating on plastics



# PRODUCTS

## LUNES 2.0

The Novellini shower enclosure with the largest number of configurations, more than three thousand. For more than 15 years, the Lunes Collection has met the needs of any bathroom space with a minimal design, refined aesthetics and ever greater simplicity of installation. The large windows give breath to the environment, the doors can be hinged or sliding. Lunes 2.0 is customizable in the crystals, in the finishes of the profiles, in the handles and in the shower trays and presents tailor-made solutions, easy adjustments and a new concept of simple and safe assembly. Silent sliding system on ball bearings. Door release system for easy cleaning.

### LUNES 2.0 A - 90x90

**Corner entry shower enclosure, 2 sliding doors + 2 fixed panels.**

<https://www.novellini.com/content/com/int/en/collections/shower-enclosures/lunes-2-0/lunes-2-0-a.html>



#### Characteristics

Closure type: Sliding doors  
 Form: Square  
 Style: Classic  
 Trim colour: White , Silver , Silver Grey , Chrome  
 Glass: Clear , Niva , Aqua , Lunes 2.0 printing  
 Height: 195 cm  
 Glass thickness: 4 mm  
 Production 2021: 3.215 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	76,5 %
Aluminium profiles	21,0 %
Complementary materials	2,5 %

### LUNES 2.0 G+F - 90x90

**Pivot shower door, in-out opening**

<https://www.novellini.com/content/com/int/en/collections/shower-enclosures/lunes-2-0/lunes-2-0-g-f.html>



#### Characteristics

Closure type: Hinged doors  
 Form: Recess shower doors, Square  
 Style: Classic  
 Trim colour: White , Silver , Silver Grey , Chrome  
 Glass: Clear , Niva , Aqua , Lunes 2.0 printing  
 Height: 195 cm  
 Glass thickness: 5 mm  
 Production 2021: 7.392 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	78,2 %
Aluminium profiles	18,7 %
Complementary materials	3,1 %

## PRODUCTS

### KUADRA 2.0

Kuadra 2.0 is the Novellini box that is transformed into an elegant piece of furniture to create a unique shower space in the most refined and contemporary bathroom environments. Essential shape and maximum aesthetic performance combined with functionality of use and maintenance. The details stand out, from the silent smoothness of the quick release doors, to the soft closing system, to the absence of visible screws. Everything contributes to indulging in a fantastic moment of relaxation and self-care.

#### KUADRA 2.0 2PH - 120x80

##### Shower door, 1 sliding door + 1 fixed panel in line combined with the side panel Kuadra 2.0 F

<https://www.novellini.com/content/com/int/en/collections/shower-enclosures/kuadra-2-0/kuadra-2-0-2ph.html>



##### Characteristics

Closure type: Sliding doors  
 Form: Recess shower doors, Square  
 Style: Contemporary  
 Trim colour: Silver , Black , Chrome , White soft  
 Glass: Clear , Rose 1 printing  
 Height: 200 cm  
 Glass thickness: 8 mm  
 Production 2021: 1.098 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	84,1 %
Aluminium profiles	12,9 %
Complementary materials	3,0 %

#### KUADRA 2.0 G+F - 90x90

##### Pivot shower door combined with the side panel Kuadra 2.0 F

<https://www.novellini.com/content/com/int/en/collections/shower-enclosures/kuadra-2-0/kuadra-2-0-g-f.html>



##### Characteristics

Closure type: Hinged doors  
 Form: Recess shower doors, Square  
 Style: Contemporary  
 Trim colour: Silver , Black , Chrome , White soft  
 Glass: Clear , Rose 1 printing  
 Height: 200 cm  
 Glass thickness: 6 mm  
 Production 2021: 306 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	84,1 %
Aluminium profiles	12,6 %
Complementary materials	3,3 %

# PRODUCTS

## YOUNG

The shower box that interprets the aesthetic and functional needs of the bathroom with linearity. Extremely adaptable thanks to its multiple corner or niche configurations, it allows you to enhance the volumes according to the possibilities available, maximizing spaces even when they are scarce. The doors can be hinged or folding and can be combined with one or more fixed walls; the door lifting system for opening and closing ensures simple cleaning and maintenance. Metal handle. Possibility of internal / external opening. Chromed metal hinges with door lifting.

### YOUNG 1BS - 90

#### Shower door, opening 1 hinged door and folding

<https://www.novellini.it/collezioni/boxdoccia/young/young-1bs-f.html>



#### Characteristics

Closure type: Folding folding doors  
 Form: Shower doors, Square  
 Style: Essential  
 Trim color: Silver, Black, Chrome, White soft  
 Glass: Clear, Aqua, Satin  
 Height: 200 cm  
 Glass thickness: 6 mm  
 Production 2021: 706 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	77,0 %
Aluminium profiles	15,1 %
Complementary materials	7,9 %

### YOUNG G+F - 90x90

#### Corner shower enclosure opening 1 hinged door with 1 fixed side panel

<https://www.novellini.it/collezioni/boxdoccia/young/young-g-f.html>



#### Characteristics

Closure type: Hinged doors  
 Form: Square  
 Style: Essential  
 Trim color: Silver, Black, Chrome, Soft white  
 Glass: Clear, Aqua, Satin  
 Height: 200 cm  
 Glass thickness: 6 mm  
 Production 2021: 5.716 Pz  
 Product composition:

Material category	% incidence by weight
Tempered glass	86,2 %
Aluminium profiles	8,6 %
Complementary materials	5,2 %



# PRODUCTS

## OPERA

Technology and aesthetics characterize this series and blend in details of elegance and comfort. The shapes are essential, the structure is solid, the volumes are regular. The handles set on both sides give a pleasant and comfortable velvety sensation to the touch, while the sliding door release system ensures ease of cleaning and maintenance. The glass, eight millimeters thick and reliable with Crystal Clear anti-drop treatment, can be chosen transparent or enriched with a refined screen printing. Soft Closing system in opening and closing. Sliding door release system for easy cleaning. Sliding plate used for the protection of the upper rail.

### OPERA PH+FH - 120x80

**Corner solution, 1 sliding door + 1 fixed panel in line + 1 side panel**

<https://www.novellini.com/content/com/int/en/collections/shower-enclosures/opera/opera-ph-fh.html>



#### Characteristics

Closure type: Sliding doors

Form: Square

Style: Contemporary

Trim colour: Silver , Black , Chrome , White soft

Glass: Clear , Ravenna printing

Height: 200 cm

Glass thickness: 8 mm

Production 2021: 954 Pz

Product composition:

Material category	% incidence by weight
Tempered glass	91,7 %
Aluminium profiles	7,0 %
Complementary materials	1,3 %

## PRODUCTS

### KUADRA H - 120

Design transforms to follow your style. Novellini Kuadra H shower space fit elegantly into the most modern and appealing bathrooms, designed for those who want to break classic scheme and give life to their unique project without giving up functionality.

#### Shower panel

<https://www.novellini.com/content/com/int/en/collections/wet-floor/kuadra-h/kuadra-h.html>



#### Characteristics

Style: Contemporary

Trim colour: White , Silver , Black , Chrome

Glass: Clear , satin bands , Ravenna printing

Height: 200 cm

Glass thickness: 8 mm

Production 2021: 5.372 Pz

Product composition:

Material category	% incidence by weight
Tempered glass	93,9 %
Aluminium profiles	4,3 %
Complementary materials	1,8 %

### GIADA H - 120

Design transforms to follow your style. Novellini Giada H shower space fit elegantly into the most modern and appealing bathrooms, designed for those who want to break classic scheme and give life to their unique project without giving up functionality. Quality and elegance in a single glance. The wide range of elements is configurable at own taste for essential and elegant walk-in combinations, with a unique visual impact.

#### Shower panel

<https://www.novellini.com/content/com/int/en/collections/wet-floor/giada-h/giada-h.html>



#### Characteristics

Style: Essential

Trim colour: White, Silver, Chrome

Glass: Clear , satin bands

Height: 195 cm

Glass thickness: 6 mm

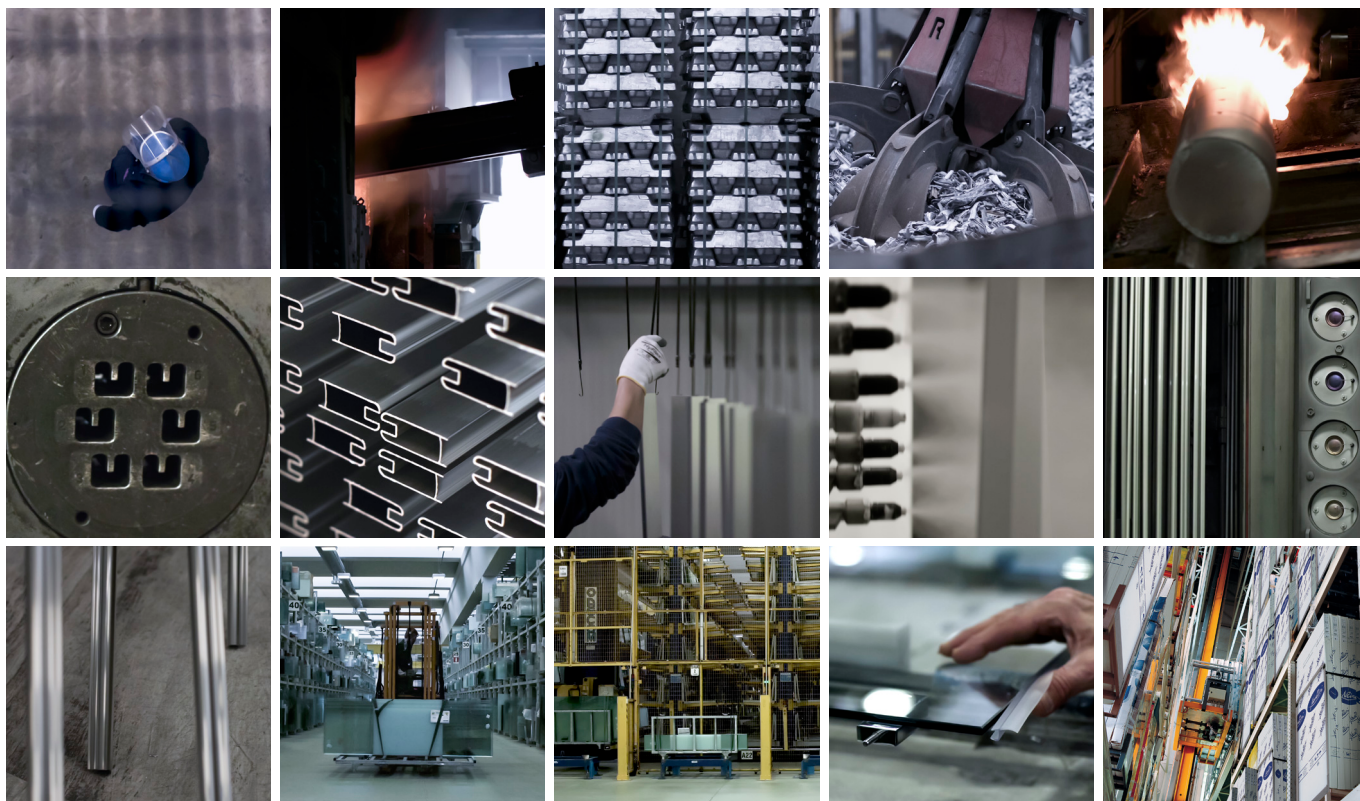
Production 2021: 1.320 Pz

Product composition

Material category	% incidence by weight
Tempered glass	92,5 %
Aluminium profiles	4,2 %
Complementary materials	3,3 %

In the shower enclosures produced by Novellini S.p.A. there are no substances of very high concern (SVHC) contemplated in the ECHA Candidate List in concentrations greater than 0.1%. The same shower enclosures are not responsible for emissions of dangerous substances into air, water and soil, during the use phase.

# PRODUCTION



## FROM RAW MATERIALS TO FINISHED PRODUCT

Integration, automation and industrial planning are the cornerstones of the production process. The process starts in the foundry and glassworks for shower enclosures, in the thermoforming of acrylic sheets for bathtubs, shower enclosures and shower trays, and in the cutting of wooden tops for furniture.

All materials are conveyed to the assembly plants for final assembly. After testing and packaging, the products are transported to the vertical warehouse so that they are always available in large quantities and immediately ready for shipment.



## OUR TWO PILLARS

Glass and aluminium are the raw materials with which we create our products. We process them with a minimum of waste. From aluminium we forge a production process capable of endless renewal. From glass comes regeneration.



### Aluminium

70% use of aluminium  
from the recycling circuit



### Glass

98% optimisation of sheet  
cutting to minimise waste



# LIFE CYCLE ASSESSMENT

This Environmental Product Declaration and the Life Cycle Assessment on which it is based describe the environmental profile of nine types of shower enclosures produced by Novellini S.p.A., according to the from cradle to gate with options scenario. This scenario includes the stages of production (A1), transport of the raw materials and ancillary components (A2), the cutting and tempering of the glass sheets and the assembly process of shower enclosures (A3), which are conducted directly or controlled by Novellini S.p.A. Downstream of the plant gate, the phases of transport to average customers in the reference market (A4) and the installation with packaging waste management (A5) are also considered, since these activities are partly controlled or otherwise known to the company. The end-of-life phases are then included in the assessment, i.e. deinstallation of the product (C1), transport to the treatment center (C2), processing of the resulting waste for material recycling (C3), disposal of non-recyclable final waste (C4). The benefits achievable from recovery and recycling processes of the waste at the end of the product life (D) are also included. On the contrary, the use and maintenance phases during the useful life of the product (B) are out of the system boundaries.

Production stage			Construction stage		Use stage							End of life stage				Benefits and loads beyond the syst. boundaries
Raw materials	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Demolition	Transport	Waste processing	Disposal	Reuse Recovery Recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

MND: Module Not Declared.

EPD type: specific for the shower enclosures under assessment.

Geographical area: Italy, according to production; Europe, according to sale market conditions.

Reference year: 2021.

Software: SimaPro V. 9.3.

Database: Ecoinvent V. 3.8.

Functional unit: 1 m<sup>2</sup> of shower enclosure packed at the gate of the production plant.

Reference Service Life: not applicable since modules from B1 to B7 are not evaluated.

# ENVIRONMENTAL PERFORMANCES

## LUNES 2.0 A, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	3,69E +01	3,26E +01	5,80E -01	3,72E +00	1,26E +00	4,96E +00	0,00E +00	2,89E -01	0,00E +00	1,85E -01	-3,07E +00
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	3,57E +01	3,17E +01	5,78E -01	3,48E +00	1,26E +00	3,93E -01	0,00E +00	2,88E -01	0,00E +00	8,56E -03	-2,98E +00
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,01E +00	7,76E -01	1,54E -03	2,33E -01	5,48E -03	4,56E +00	0,00E +00	1,12E -03	0,00E +00	1,76E -01	-2,34E -02
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,65E -01	1,51E -01	2,29E -04	1,33E -02	6,50E -04	1,04E -04	0,00E +00	1,72E -04	0,00E +00	5,19E -08	-7,11E -02
	ODP	kg CFC-11 eq.	5,00E -06	4,43E -06	1,34E -07	4,37E -07	2,78E -07	3,06E -08	0,00E +00	6,29E -08	0,00E +00	1,11E 10	-3,15E -07
	AP	mol H+ eq.	2,29E -01	2,13E -01	2,19E -03	1,33E -02	5,33E -03	1,16E -03	0,00E +00	1,05E -03	0,00E +00	9,64E -06	-1,96E -02
	EP <sub>freshwater</sub>	kg P eq.	7,78E -03	6,56E -03	3,76E -05	1,19E -03	1,24E -04	2,40E -05	0,00E +00	2,68E -05	0,00E +00	8,57E -06	-1,73E -03
	EP <sub>marine</sub>	kg N eq.	4,52E -02	3,83E -02	6,20E -04	6,26E -03	1,59E -03	1,78E -03	0,00E +00	2,72E -04	0,00E +00	1,20E -04	-2,64E -03
	EP <sub>terrestrial</sub>	mol N eq.	4,45E -01	4,00E -01	6,77E -03	3,80E -02	1,73E -02	3,97E -03	0,00E +00	2,97E -03	0,00E +00	2,66E -05	-2,42E -02
	POCP	kg NMVOC eq.	1,28E -01	1,16E -01	2,14E -03	9,31E -03	5,30E -03	1,76E -03	0,00E +00	9,54E -04	0,00E +00	5,53E -05	-9,03E -03
	ADP <sub>minerals and metals</sub>	kg Sb eq.	1,66E -04	1,45E -04	2,03E -06	1,94E -05	4,60E -06	8,16E -07	0,00E +00	1,79E -06	0,00E +00	2,68E 10	-6,81E -06
	ADP <sub>fossil</sub>	MJ	4,98E +02	4,41E +02	8,77E +00	4,79E +01	1,90E +01	2,09E +00	0,00E +00	4,29E +00	0,00E +00	7,11E -03	-4,61E +01
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,38E +01	1,14E +01	2,56E -02	2,35E +00	6,79E -02	3,22E -01	0,00E +00	1,61E -02	0,00E +00	1,02E -05	-2,15E -01

GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP<sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP<sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 4,37E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## LUNES 2.0 A, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	7,17E +01	5,19E +01	1,24E -01	1,97E +01	4,14E -01	7,49E -02	0,00E +00	9,09E -02	0,00E +00	4,02E -05	-1,86E +01
	PERM	MJ	2,11E +01	5,95E +00	2,91E -02	1,51E +01	9,29E -02	1,93E -02	0,00E +00	2,24E -02	0,00E +00	8,68E -06	-1,93E -01
	PERT	MJ	9,28E +01	5,78E +01	1,53E -01	3,48E +01	5,07E -01	9,42E -02	0,00E +00	1,13E -01	0,00E +00	4,88E -05	-1,88E +01
	PENRE	MJ	5,38E +02	4,77E +02	9,31E +00	5,15E +01	2,02E +01	2,22E +00	0,00E +00	4,55E +00	0,00E +00	7,55E -03	-4,90E +01
	PENRM	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
	PENRT	MJ	5,38E +02	4,77E +02	9,31E +00	5,15E +01	2,02E +01	2,22E +00	0,00E +00	4,55E +00	0,00E +00	7,55E -03	-4,90E +01
	SM	kg	1,91E +00	1,91E +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
	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
	FW	m3	6,87E -01	6,23E -01	9,19E -04	6,32E -02	2,71E -03	1,01E -02	0,00E +00	6,12E -04	0,00E +00	3,59E -07	-1,30E -01
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	5,96E -04	5,27E -04	2,29E -05	4,58E -05	4,84E -05	5,01E -06	0,00E +00	1,18E -05	0,00E +00	1,95E -08	-2,91E -05
	NHWD	kg	5,20E +00	4,05E +00	4,54E -01	6,88E -01	9,13E -01	8,00E -01	0,00E +00	1,40E -01	0,00E +00	9,54E -06	-9,15E -01
	RWD	kg	1,59E -03	1,41E -03	5,93E -05	1,20E -04	1,27E -04	1,18E -05	0,00E +00	2,83E -05	0,00E +00	4,91E -08	-2,94E -04
	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
	MFR	kg	2,77E +00	0,00E +00	0,00E +00	2,77E +00	0,00E +00	2,32E +00	0,00E +00	0,00E +00	1,11E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## LUNES 2.0 G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	3,66E +01	3,22E +01	6,00E -01	3,84E +00	1,32E +00	5,11E +00	0,00E +00	2,96E -01	0,00E +00	1,46E -01	-2,75E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	3,55E +01	3,13E +01	5,98E -01	3,60E +00	1,32E +00	4,33E -01	0,00E +00	2,95E -01	0,00E +00	6,76E -03	-2,66E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	9,83E -01	7,59E -01	1,59E -03	2,23E -01	5,73E -03	4,68E +00	0,00E +00	1,15E -03	0,00E +00	1,39E -01	-2,16E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,50E -01	1,36E -01	2,38E -04	1,36E -02	6,81E -04	1,13E -04	0,00E +00	1,76E -04	0,00E +00	4,09E -08	-6,33E -02	
	ODP	kg CFC-11 eq.	5,08E -06	4,45E -06	1,39E -07	4,87E -07	2,91E -07	3,29E -08	0,00E +00	6,44E -08	0,00E +00	8,75E 11	-2,82E -07	
	AP	mol H+ eq.	2,32E -01	2,16E -01	2,34E -03	1,37E -02	5,58E -03	1,22E -03	0,00E +00	1,08E -03	0,00E +00	7,60E -06	-1,77E -02	
	EP <sub>freshwater</sub>	kg P eq.	7,60E -03	6,35E -03	3,88E -05	1,21E -03	1,30E -04	2,65E -05	0,00E +00	2,74E -05	0,00E +00	6,76E -06	-1,56E -03	
	EP <sub>marine</sub>	kg N eq.	4,52E -02	3,82E -02	6,60E -04	6,40E -03	1,67E -03	1,84E -03	0,00E +00	2,79E -04	0,00E +00	9,44E -05	-2,39E -03	
	EP <sub>terrestrial</sub>	mol N eq.	4,51E -01	4,05E -01	7,21E -03	3,91E -02	1,81E -02	4,16E -03	0,00E +00	3,04E -03	0,00E +00	2,10E -05	-2,19E -02	
	POCP	kg NMVOC eq.	1,27E -01	1,16E -01	2,27E -03	9,50E -03	5,55E -03	1,83E -03	0,00E +00	9,78E -04	0,00E +00	4,37E -05	-8,14E -03	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	2,40E -04	2,17E -04	2,09E -06	2,00E -05	4,81E -06	8,86E -07	0,00E +00	1,83E -06	0,00E +00	2,11E 10	-1,76E -05	
	ADP <sub>fossil</sub>	MJ	4,92E +02	4,35E +02	9,07E +00	4,84E +01	1,99E +01	2,22E +00	0,00E +00	4,39E +00	0,00E +00	5,61E -03	-4,13E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,35E +01	1,10E +01	2,64E -02	2,46E +00	7,11E -02	3,90E -01	0,00E +00	1,65E -02	0,00E +00	8,02E -06	-2,08E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP <sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP <sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 4,48E+00 kg C



# ENVIRONMENTAL PERFORMANCES

## LUNES 2.0 G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	6,83E +01	4,81E +01	1,28E -01	2,01E +01	4,33E -01	8,31E -02	0,00E +00	9,31E -02	0,00E +00	3,17E -05	-1,66E +01
	PERM	MJ	2,15E +01	6,00E +00	3,00E -02	1,54E +01	9,72E -02	2,17E -02	0,00E +00	2,30E -02	0,00E +00	6,85E -06	-1,76E -01
	PERT	MJ	8,98E +01	5,41E +01	1,58E -01	3,56E +01	5,30E -01	1,05E -01	0,00E +00	1,16E -01	0,00E +00	3,85E -05	-1,68E +01
	PENRE	MJ	5,32E +02	4,70E +02	9,62E +00	5,21E +01	2,11E +01	2,36E +00	0,00E +00	4,66E +00	0,00E +00	5,96E -03	-4,38E +01
	PENRM	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
	PENRT	MJ	5,32E +02	4,70E +02	9,62E +00	5,21E +01	2,11E +01	2,36E +00	0,00E +00	4,66E +00	0,00E +00	5,96E -03	-4,38E +01
	SM	kg	1,76E +00	1,76E +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
	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
	FW	m3	6,41E -01	5,74E -01	9,49E -04	6,57E -02	2,84E -03	1,22E -02	0,00E +00	6,27E -04	0,00E +00	2,84E -07	-1,16E -01
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	8,34E -04	7,62E -04	2,36E -05	4,76E -05	5,07E -05	5,28E -06	0,00E +00	1,21E -05	0,00E +00	1,54E -08	-7,38E -05
	NHWD	kg	4,95E +00	3,78E +00	4,68E -01	7,06E -01	9,56E -01	8,39E -01	0,00E +00	1,44E -01	0,00E +00	7,53E -06	-8,17E -01
	RWD	kg	1,54E -03	1,36E -03	6,13E -05	1,22E -04	1,33E -04	1,25E -05	0,00E +00	2,90E -05	0,00E +00	3,87E -08	-2,62E -04
	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
	MFR	kg	2,92E +00	0,00E +00	0,00E +00	2,92E +00	0,00E +00	2,40E +00	0,00E +00	0,00E +00	1,15E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## KUADRA 2.0 2PH, 120x80 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	5,24E +01	4,65E +01	8,24E -01	5,05E +00	1,97E +00	6,43E +00	0,00E +00	4,59E -01	0,00E +00	5,40E -02	-3,17E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	5,11E +01	4,53E +01	8,22E -01	4,96E +00	1,96E +00	7,42E -01	0,00E +00	4,57E -01	0,00E +00	2,50E -03	-3,07E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,07E +00	9,99E -01	2,15E -03	7,17E -02	8,54E -03	5,69E +00	0,00E +00	1,78E -03	0,00E +00	5,15E -02	-2,85E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,76E -01	1,59E -01	3,32E -04	1,66E -02	1,01E -03	1,36E -04	0,00E +00	2,73E -04	0,00E +00	1,52E -08	-7,11E -02	
	ODP	kg CFC-11 eq.	7,05E -06	6,29E -06	1,90E -07	5,70E -07	4,33E -07	3,99E -08	0,00E +00	9,99E -08	0,00E +00	3,24E 11	-3,21E -07	
	AP	mol H+ eq.	3,49E -01	3,28E -01	3,63E -03	1,75E -02	8,32E -03	1,51E -03	0,00E +00	1,68E -03	0,00E +00	2,82E -06	-2,15E -02	
	EP <sub>freshwater</sub>	kg P eq.	1,06E -02	9,01E -03	5,28E -05	1,51E -03	1,94E -04	3,15E -05	0,00E +00	4,25E -05	0,00E +00	2,51E -06	-1,90E -03	
	EP <sub>marine</sub>	kg N eq.	6,43E -02	5,55E -02	1,01E -03	7,83E -03	2,48E -03	2,26E -03	0,00E +00	4,33E -04	0,00E +00	3,50E -05	-2,89E -03	
	EP <sub>terrestrial</sub>	mol N eq.	6,65E -01	6,05E -01	1,10E -02	4,90E -02	2,70E -02	5,20E -03	0,00E +00	4,72E -03	0,00E +00	7,77E -06	-2,70E -02	
	POCP	kg NMVOC eq.	1,85E -01	1,69E -01	3,39E -03	1,24E -02	8,26E -03	2,26E -03	0,00E +00	1,52E -03	0,00E +00	1,62E -05	-9,75E -03	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	7,48E -04	7,21E -04	2,85E -06	2,39E -05	7,17E -06	1,07E -06	0,00E +00	2,84E -06	0,00E +00	7,83E 11	-9,19E -05	
	ADP <sub>fossil</sub>	MJ	6,95E +02	6,18E +02	1,24E +01	6,54E +01	2,97E +01	2,72E +00	0,00E +00	6,81E +00	0,00E +00	2,08E -03	-4,74E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,46E +01	1,08E +01	3,59E -02	3,73E +00	1,06E -01	4,34E -01	0,00E +00	2,55E -02	0,00E +00	2,97E -06	-3,30E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP <sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP <sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 5,49E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## KUADRA 2.0 2PH, 120x80 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	8,41E +01	5,91E +01	1,74E -01	2,48E +01	6,45E -01	9,84E -02	0,00E +00	1,44E -01	0,00E +00	1,17E -05	-1,88E +01
	PERM	MJ	2,75E +01	8,60E +00	4,08E -02	1,89E +01	1,45E -01	2,55E -02	0,00E +00	3,57E -02	0,00E +00	2,54E -06	-2,20E -01
	PERT	MJ	1,12E +02	6,77E +01	2,15E -01	4,36E +01	7,90E -01	1,24E -01	0,00E +00	1,80E -01	0,00E +00	1,43E -05	-1,90E +01
	PENRE	MJ	7,52E +02	6,69E +02	1,32E +01	7,04E +01	3,15E +01	2,89E +00	0,00E +00	7,23E +00	0,00E +00	2,21E -03	-5,04E +01
	PENRM	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
	PENRT	MJ	7,52E +02	6,69E +02	1,32E +01	7,04E +01	3,15E +01	2,89E +00	0,00E +00	7,23E +00	0,00E +00	2,21E -03	-5,04E +01
	SM	kg	1,87E +00	1,87E +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
	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
	FW	m3	6,12E -01	5,15E -01	1,29E -03	9,56E -02	4,23E -03	1,36E -02	0,00E +00	9,73E -04	0,00E +00	1,05E -07	-1,32E -01
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	2,48E -03	2,39E -03	3,20E -05	5,83E -05	7,55E -05	6,77E -06	0,00E +00	1,88E -05	0,00E +00	5,70E -09	-3,56E -04
	NHWD	kg	6,21E +00	4,79E +00	6,32E -01	7,92E -01	1,42E +00	1,03E +00	0,00E +00	2,23E -01	0,00E +00	2,79E -06	-9,29E -01
	RWD	kg	2,05E -03	1,81E -03	8,40E -05	1,54E -04	1,99E -04	1,53E -05	0,00E +00	4,49E -05	0,00E +00	1,44E -08	-3,00E -04
	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
	MFR	kg	4,37E +00	0,00E +00	0,00E +00	4,37E +00	0,00E +00	3,00E +00	0,00E +00	0,00E +00	1,79E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## KUADRA 2.0 G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	4,64E +01	4,11E +01	7,46E -01	4,50E +00	1,72E +00	6,08E +00	0,00E +00	4,02E -01	0,00E +00	2,60E -01	-2,71E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	4,52E +01	4,01E +01	7,44E -01	4,35E +00	1,71E +00	4,71E -01	0,00E +00	4,00E -01	0,00E +00	1,21E -02	-2,62E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,04E +00	9,09E -01	1,92E -03	1,34E -01	7,46E -03	5,61E +00	0,00E +00	1,56E -03	0,00E +00	2,48E -01	-2,70E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,52E -01	1,35E -01	3,04E -04	1,63E -02	8,85E -04	1,30E -04	0,00E +00	2,39E -04	0,00E +00	7,31E -08	-5,95E -02	
	ODP	kg CFC-11 eq.	6,31E -06	5,59E -06	1,72E -07	5,42E -07	3,78E -07	3,79E -08	0,00E +00	8,74E -08	0,00E +00	1,56E 10	-2,71E -07	
	AP	mol H+ eq.	3,11E -01	2,92E -01	3,58E -03	1,58E -02	7,26E -03	1,43E -03	0,00E +00	1,47E -03	0,00E +00	1,36E -05	-1,88E -02	
	EP <sub>freshwater</sub>	kg P eq.	9,87E -03	8,42E -03	4,75E -05	1,41E -03	1,69E -04	3,00E -05	0,00E +00	3,72E -05	0,00E +00	1,21E -05	-1,67E -03	
	EP <sub>marine</sub>	kg N eq.	5,76E -02	4,91E -02	9,83E -04	7,51E -03	2,17E -03	2,19E -03	0,00E +00	3,78E -04	0,00E +00	1,69E -04	-2,56E -03	
	EP <sub>terrestrial</sub>	mol N eq.	5,93E -01	5,36E -01	1,08E -02	4,58E -02	2,36E -02	4,89E -03	0,00E +00	4,12E -03	0,00E +00	3,75E -05	-2,41E -02	
	POCP	kg NMVOC eq.	1,64E -01	1,50E -01	3,27E -03	1,09E -02	7,21E -03	2,16E -03	0,00E +00	1,33E -03	0,00E +00	7,80E -05	-8,53E -03	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	9,03E -04	8,78E -04	2,56E -06	2,20E -05	6,26E -06	1,01E -06	0,00E +00	2,49E -06	0,00E +00	3,78E 10	-1,21E -04	
	ADP <sub>fossil</sub>	MJ	6,14E +02	5,48E +02	1,12E +01	5,41E +01	2,59E +01	2,58E +00	0,00E +00	5,96E +00	0,00E +00	1,00E -02	-4,04E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,30E +01	9,94E +00	3,23E -02	3,05E +00	9,25E -02	4,11E -01	0,00E +00	2,23E -02	0,00E +00	1,43E -05	-3,41E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP <sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP <sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 5,38E+00 kg C



# ENVIRONMENTAL PERFORMANCES

## KUADRA 2.0 G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	7,57E +01	5,15E +01	1,56E -01	2,41E +01	5,64E -01	9,35E -02	0,00E +00	1,26E -01	0,00E +00	5,66E -05	-1,58E +01
	PERM	MJ	2,62E +01	7,60E +00	3,67E -02	1,85E +01	1,27E -01	2,41E -02	0,00E +00	3,12E -02	0,00E +00	1,22E -05	-1,99E -01
	PERT	MJ	1,02E +02	5,91E +01	1,93E -01	4,26E +01	6,90E -01	1,18E -01	0,00E +00	1,58E -01	0,00E +00	6,89E -05	-1,60E +01
	PENRE	MJ	6,64E +02	5,94E +02	1,19E +01	5,83E +01	2,75E +01	2,75E +00	0,00E +00	6,32E +00	0,00E +00	1,07E -02	-4,30E +01
	PENRM	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
	PENRT	MJ	6,64E +02	5,94E +02	1,19E +01	5,83E +01	2,75E +01	2,75E +00	0,00E +00	6,32E +00	0,00E +00	1,07E -02	-4,30E +01
	SM	kg	1,58E +00	1,58E +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
	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
	FW	m3	5,35E -01	4,53E -01	1,16E -03	8,09E -02	3,69E -03	1,28E -02	0,00E +00	8,51E -04	0,00E +00	5,07E -07	-1,12E -01
	<p>PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.</p>												
Waste and output flows	HWD	kg	3,14E -03	3,06E -03	2,87E -05	5,56E -05	6,59E -05	6,16E -06	0,00E +00	1,65E -05	0,00E +00	2,75E -08	-5,02E -04
	NHWD	kg	5,55E +00	4,20E +00	5,64E -01	7,87E -01	1,24E +00	9,84E -01	0,00E +00	1,95E -01	0,00E +00	1,34E -05	-7,85E -01
	RWD	kg	1,83E -03	1,61E -03	7,59E -05	1,40E -04	1,73E -04	1,45E -05	0,00E +00	3,93E -05	0,00E +00	6,92E -08	-2,54E -04
	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
	MFR	kg	3,91E +00	0,00E +00	0,00E +00	3,91E +00	0,00E +00	2,85E +00	0,00E +00	0,00E +00	1,55E +01	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
	EEE	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
	EET	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
<p>HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.</p>													

# ENVIRONMENTAL PERFORMANCES

## YOUNG 1BS, 90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	5,62E +01	5,11E +01	7,52E -01	4,34E +00	1,80E +00	5,63E +00	0,00E +00	4,21E -01	0,00E +00	2,95E -01	-3,49E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	5,46E +01	4,97E +01	7,50E -01	4,15E +00	1,79E +00	5,29E -01	0,00E +00	4,19E -01	0,00E +00	1,37E -02	-3,38E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,35E +00	1,18E +00	1,91E -03	1,73E -01	7,81E -03	5,10E +00	0,00E +00	1,63E -03	0,00E +00	2,81E -01	-3,50E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	2,38E -01	2,23E -01	3,09E -04	1,49E -02	9,27E -04	1,15E -04	0,00E +00	2,51E -04	0,00E +00	8,28E -08	-7,67E -02	
	ODP	kg CFC-11 eq.	7,62E -06	6,99E -06	1,73E -07	4,63E -07	3,96E -07	3,38E -08	0,00E +00	9,16E -08	0,00E +00	1,77E 10	-3,50E -07	
	AP	mol H+ eq.	3,48E -01	3,30E -01	3,84E -03	1,47E -02	7,61E -03	1,30E -03	0,00E +00	1,54E -03	0,00E +00	1,54E -05	-2,43E -02	
	EP <sub>freshwater</sub>	kg P eq.	1,21E -02	1,08E -02	4,76E -05	1,32E -03	1,77E -04	2,60E -05	0,00E +00	3,90E -05	0,00E +00	1,37E -05	-2,16E -03	
	EP <sub>marine</sub>	kg N eq.	6,48E -02	5,69E -02	1,05E -03	6,94E -03	2,27E -03	2,00E -03	0,00E +00	3,97E -04	0,00E +00	1,91E -04	-3,31E -03	
	EP <sub>terrestrial</sub>	mol N eq.	6,64E -01	6,10E -01	1,15E -02	4,23E -02	2,47E -02	4,50E -03	0,00E +00	4,32E -03	0,00E +00	4,24E -05	-3,12E -02	
	POCP	kg NMVOC eq.	1,87E -01	1,73E -01	3,45E -03	1,05E -02	7,56E -03	1,98E -03	0,00E +00	1,39E -03	0,00E +00	8,83E -05	-1,10E -02	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	1,13E -03	1,11E -03	2,56E -06	2,00E -05	6,56E -06	8,96E -07	0,00E +00	2,61E -06	0,00E +00	4,27E 10	-1,58E -04	
	ADP <sub>fossil</sub>	MJ	7,58E +02	6,93E +02	1,13E +01	5,36E +01	2,71E +01	2,33E +00	0,00E +00	6,25E +00	0,00E +00	1,14E -02	-5,22E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,49E +01	1,18E +01	3,23E -02	3,04E +00	9,69E -02	3,23E -01	0,00E +00	2,34E -02	0,00E +00	1,62E -05	-4,44E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP <sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP <sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 4,92E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## YOUNG 1BS, 90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	8,89E +01	6,66E +01	1,57E -01	2,21E +01	5,90E -01	8,08E -02	0,00E +00	1,32E -01	0,00E +00	6,41E -05	-2,04E +01
	PERM	MJ	2,55E +01	8,50E +00	3,67E -02	1,70E +01	1,33E -01	2,06E -02	0,00E +00	3,27E -02	0,00E +00	1,39E -05	-2,58E -01
	PERT	MJ	1,14E +02	7,51E +01	1,93E -01	3,91E +01	7,23E -01	1,01E -01	0,00E +00	1,65E -01	0,00E +00	7,80E -05	-2,06E +01
	PENRE	MJ	8,20E +02	7,50E +02	1,20E +01	5,76E +01	2,88E +01	2,48E +00	0,00E +00	6,63E +00	0,00E +00	1,21E -02	-5,55E +01
	PENRM	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
	PENRT	MJ	8,20E +02	7,50E +02	1,20E +01	5,76E +01	2,88E +01	2,48E +00	0,00E +00	6,63E +00	0,00E +00	1,21E -02	-5,55E +01
	SM	kg	2,04E +00	2,04E +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
	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
	FW	m3	6,39E -01	5,59E -01	1,16E -03	7,84E -02	3,86E -03	1,01E -02	0,00E +00	8,92E -04	0,00E +00	5,74E -07	-1,44E -01
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	4,07E -03	3,99E -03	2,87E -05	5,12E -05	6,90E -05	5,70E -06	0,00E +00	1,73E -05	0,00E +00	3,11E -08	-6,57E -04
	NHWD	kg	6,37E +00	5,07E +00	5,63E -01	7,37E -01	1,30E +00	9,01E -01	0,00E +00	2,04E -01	0,00E +00	1,52E -05	-1,01E +00
	RWD	kg	2,22E -03	2,01E -03	7,64E -05	1,34E -04	1,82E -04	1,32E -05	0,00E +00	4,12E -05	0,00E +00	7,84E -08	-3,28E -04
	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
	MFR	kg	3,86E +00	0,00E +00	0,00E +00	3,86E +00	0,00E +00	2,65E +00	0,00E +00	0,00E +00	1,63E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## YOUNG G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	4,60E +01	4,10E +01	7,21E -01	4,28E +00	1,72E +00	5,27E +00	0,00E +00	3,97E -01	0,00E +00	1,99E -01	-1,94E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	4,47E +01	3,99E +01	7,19E -01	4,07E +00	1,71E +00	4,62E -01	0,00E +00	3,95E -01	0,00E +00	9,23E -03	-1,88E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,08E +00	8,86E -01	1,90E -03	1,97E -01	7,46E -03	4,81E +00	0,00E +00	1,54E -03	0,00E +00	1,90E -01	-1,59E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,46E -01	1,32E -01	2,86E -04	1,40E -02	8,86E -04	1,15E -04	0,00E +00	2,36E -04	0,00E +00	5,59E -08	-4,44E -02	
	ODP	kg CFC-11 eq.	6,40E -06	5,75E -06	1,67E -07	4,88E -07	3,79E -07	3,35E -08	0,00E +00	8,63E -08	0,00E +00	1,19E 10	-1,98E -07	
	AP	mol H+ eq.	2,92E -01	2,75E -01	2,85E -03	1,41E -02	7,27E -03	1,25E -03	0,00E +00	1,45E -03	0,00E +00	1,04E -05	-1,27E -02	
	EP <sub>freshwater</sub>	kg P eq.	7,78E -03	6,49E -03	4,65E -05	1,24E -03	1,69E -04	2,67E -05	0,00E +00	3,67E -05	0,00E +00	9,23E -06	-1,12E -03	
	EP <sub>marine</sub>	kg N eq.	5,41E -02	4,67E -02	8,03E -04	6,58E -03	2,17E -03	1,89E -03	0,00E +00	3,74E -04	0,00E +00	1,29E -04	-1,71E -03	
	EP <sub>terrestrial</sub>	mol N eq.	5,69E -01	5,19E -01	8,78E -03	4,04E -02	2,36E -02	4,28E -03	0,00E +00	4,07E -03	0,00E +00	2,86E -05	-1,58E -02	
	POCP	kg NMVOC eq.	1,55E -01	1,42E -01	2,75E -03	9,86E -03	7,22E -03	1,88E -03	0,00E +00	1,31E -03	0,00E +00	5,96E -05	-5,81E -03	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	3,39E -04	3,16E -04	2,51E -06	2,00E -05	6,27E -06	8,98E -07	0,00E +00	2,46E -06	0,00E +00	2,89E 10	-2,47E -05	
	ADP <sub>fossil</sub>	MJ	6,05E +02	5,44E +02	1,09E +01	4,99E +01	2,59E +01	2,27E +00	0,00E +00	5,88E +00	0,00E +00	7,67E -03	-2,91E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,22E +01	9,13E +00	3,17E -02	3,00E +00	9,26E -02	3,80E -01	0,00E +00	2,21E -02	0,00E +00	1,10E -05	-1,63E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADPminerals and metals = Abiotic depletion potential for non-fossil resources; ADPfossil = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADPminerals and metals, ADPfossil and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 4,62E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## YOUNG G+F, 90x90 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	6,45E +01	4,36E +01	1,54E -01	2,08E +01	5,64E -01	8,35E -02	0,00E +00	1,25E -01	0,00E +00	4,33E -05	-1,17E +01
	PERM	MJ	2,35E +01	7,55E +00	3,60E -02	1,59E +01	1,27E -01	2,17E -02	0,00E +00	3,08E -02	0,00E +00	9,35E -06	-1,27E -01
	PERT	MJ	8,80E +01	5,11E +01	1,90E -01	3,67E +01	6,91E -01	1,05E -01	0,00E +00	1,56E -01	0,00E +00	5,26E -05	-1,18E +01
	PENRE	MJ	6,55E +02	5,90E +02	1,16E +01	5,37E +01	2,75E +01	2,41E +00	0,00E +00	6,25E +00	0,00E +00	8,14E -03	-3,09E +01
	PENRM	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
	PENRT	MJ	6,55E +02	5,90E +02	1,16E +01	5,37E +01	2,75E +01	2,41E +00	0,00E +00	6,25E +00	0,00E +00	8,14E -03	-3,09E +01
	SM	kg	1,09E +00	1,09E +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
	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
	FW	m3	4,57E -01	3,78E -01	1,14E -03	7,75E -02	3,69E -03	1,19E -02	0,00E +00	8,41E -04	0,00E +00	3,87E -07	-8,16E -02
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	1,20E -03	1,13E -03	2,83E -05	4,91E -05	6,60E -05	5,43E -06	0,00E +00	1,63E -05	0,00E +00	2,10E -08	-1,03E -04
	NHWD	kg	4,66E +00	3,38E +00	5,61E -01	7,19E -01	1,24E +00	8,61E -01	0,00E +00	1,92E -01	0,00E +00	1,03E -05	-5,75E -01
	RWD	kg	1,69E -03	1,49E -03	7,36E -05	1,26E -04	1,74E -04	1,28E -05	0,00E +00	3,88E -05	0,00E +00	5,29E -08	-1,85E -04
	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
	MFR	kg	4,05E +00	0,00E +00	0,00E +00	4,05E +00	0,00E +00	2,48E +00	0,00E +00	0,00E +00	1,54E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## OPERA PH+FH, 120x80 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	5,68E +01	5,06E +01	9,72E -01	5,15E +00	2,21E +00	5,79E +00	0,00E +00	5,31E -01	0,00E +00	3,97E -03	-1,98E +00
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	5,54E +01	4,94E +01	9,69E -01	5,01E +00	2,20E +00	6,77E -01	0,00E +00	5,28E -01	0,00E +00	1,84E -04	-1,92E +00
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,23E +00	1,11E +00	2,54E -03	1,19E -01	9,56E -03	5,11E +00	0,00E +00	2,06E -03	0,00E +00	3,79E -03	-1,94E -02
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,50E -01	1,35E -01	3,90E -04	1,49E -02	1,14E -03	1,27E -04	0,00E +00	3,16E -04	0,00E +00	1,12E -09	-4,37E -02
	ODP	kg CFC-11 eq.	7,82E -06	7,04E -06	2,24E -07	5,47E -07	4,85E -07	3,70E -08	0,00E +00	1,15E -07	0,00E +00	2,38E 12	-1,99E -07
	AP	mol H+ eq.	3,81E -01	3,61E -01	4,18E -03	1,61E -02	9,31E -03	1,38E -03	0,00E +00	1,94E -03	0,00E +00	2,07E -07	-1,37E -02
	EP <sub>freshwater</sub>	kg P eq.	9,57E -03	8,12E -03	6,24E -05	1,38E -03	2,17E -04	2,97E -05	0,00E +00	4,91E -05	0,00E +00	1,84E -07	-1,22E -03
	EP <sub>marine</sub>	kg N eq.	6,84E -02	6,01E -02	1,16E -03	7,14E -03	2,78E -03	2,03E -03	0,00E +00	5,00E -04	0,00E +00	2,57E -06	-1,86E -03
	EP <sub>terrestrial</sub>	mol N eq.	7,37E -01	6,80E -01	1,27E -02	4,50E -02	3,02E -02	4,73E -03	0,00E +00	5,45E -03	0,00E +00	5,72E -07	-1,75E -02
	POCP	kg NMVOC eq.	1,98E -01	1,82E -01	3,94E -03	1,14E -02	9,25E -03	2,05E -03	0,00E +00	1,75E -03	0,00E +00	1,19E -06	-6,22E -03
	ADP <sub>minerals and metals</sub>	kg Sb eq.	7,42E -04	7,16E -04	3,36E -06	2,26E -05	8,03E -06	9,96E -07	0,00E +00	3,28E -06	0,00E +00	5,76E 12	-8,23E -05
	ADP <sub>fossil</sub>	MJ	7,36E +02	6,61E +02	1,46E +01	6,02E +01	3,32E +01	2,49E +00	0,00E +00	7,87E +00	0,00E +00	1,53E -04	-2,96E +01
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,56E +01	1,16E +01	4,24E -02	3,96E +00	1,19E -01	4,36E -01	0,00E +00	2,95E -02	0,00E +00	2,19E -07	-2,42E -01

GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP<sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP<sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 4,92E+00 kg C



# ENVIRONMENTAL PERFORMANCES

## OPERA PH+FH, 120x80 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	7,07E +01	4,83E +01	2,06E -01	2,22E +01	7,22E -01	9,31E -02	0,00E +00	1,67E -01	0,00E +00	8,64E -07	-1,16E +01
	PERM	MJ	2,65E +01	9,56E +00	4,82E -02	1,69E +01	1,62E -01	2,43E -02	0,00E +00	4,12E -02	0,00E +00	1,87E -07	-1,45E -01
	PERT	MJ	9,72E +01	5,78E +01	2,54E -01	3,92E +01	8,85E -01	1,17E -01	0,00E +00	2,08E -01	0,00E +00	1,05E -06	-1,17E +01
	PENRE	MJ	7,97E +02	7,17E +02	1,55E +01	6,48E +01	3,52E +01	2,66E +00	0,00E +00	8,35E +00	0,00E +00	1,62E -04	-3,15E +01
	PENRM	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
	PENRT	MJ	7,97E +02	7,17E +02	1,55E +01	6,48E +01	3,52E +01	2,66E +00	0,00E +00	8,35E +00	0,00E +00	1,62E -04	-3,15E +01
	SM	kg	1,16E +00	1,16E +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
	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
	FW	m3	5,36E -01	4,35E -01	1,52E -03	9,98E -02	4,73E -03	1,36E -02	0,00E +00	1,12E -03	0,00E +00	7,73E -09	-8,20E -02
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	2,57E -03	2,48E -03	3,79E -05	5,41E -05	8,45E -05	6,17E -06	0,00E +00	2,18E -05	0,00E +00	4,19E- 10	-3,43E -04
	NHWD	kg	5,39E +00	3,90E +00	7,47E -01	7,49E -01	1,59E +00	9,34E -01	0,00E +00	2,57E -01	0,00E +00	2,05E -07	-5,76E -01
	RWD	kg	2,03E -03	1,78E -03	9,91E -05	1,42E -04	2,22E -04	1,40E -05	0,00E +00	5,19E -05	0,00E +00	1,06E -09	-1,87E -04
	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
	MFR	kg	5,34E +00	0,00E +00	0,00E +00	5,34E +00	0,00E +00	2,68E +00	0,00E +00	0,00E +00	2,07E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## KUADRA H, 120 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	5,23E +01	4,68E +01	9,46E -01	4,51E +00	2,12E +00	4,46E +00	0,00E +00	5,24E -01	0,00E +00	5,49E -02	-1,40E +00
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	5,10E +01	4,57E +01	9,43E -01	4,37E +00	2,11E +00	5,97E -01	0,00E +00	5,22E -01	0,00E +00	2,55E -03	-1,36E +00
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	1,15E +00	1,02E +00	2,48E -03	1,30E -01	9,21E -03	3,86E +00	0,00E +00	2,03E -03	0,00E +00	5,24E -02	-1,38E -02
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	1,11E -01	9,92E -02	3,78E -04	1,13E -02	1,09E -03	9,95E -05	0,00E +00	3,12E -04	0,00E +00	1,54E -08	-3,09E -02
	ODP	kg CFC-11 eq.	7,22E -06	6,56E -06	2,18E -07	4,40E -07	4,67E -07	2,89E -08	0,00E +00	1,14E -07	0,00E +00	3,30E 11	-1,41E -07
	AP	mol H+ eq.	3,61E -01	3,44E -01	3,94E -03	1,28E -02	8,97E -03	1,07E -03	0,00E +00	1,91E -03	0,00E +00	2,87E -06	-9,70E -03
	EP <sub>freshwater</sub>	kg P eq.	7,99E -03	6,87E -03	6,09E -05	1,06E -03	2,09E -04	2,36E -05	0,00E +00	4,85E -05	0,00E +00	2,55E -06	-8,61E -04
	EP <sub>marine</sub>	kg N eq.	6,34E -02	5,67E -02	1,10E -03	5,54E -03	2,68E -03	1,54E -03	0,00E +00	4,94E -04	0,00E +00	3,56E -05	-1,32E -03
	EP <sub>terrestrial</sub>	mol N eq.	6,98E -01	6,51E -01	1,21E -02	3,53E -02	2,91E -02	3,66E -03	0,00E +00	5,38E -03	0,00E +00	7,91E -06	-1,24E -02
	POCP	kg NMVOC eq.	1,84E -01	1,72E -01	3,74E -03	9,08E -03	8,91E -03	1,57E -03	0,00E +00	1,73E -03	0,00E +00	1,65E -05	-4,41E -03
	ADP <sub>minerals and metals</sub>	kg Sb eq.	6,00E -04	5,79E -04	3,28E -06	1,75E -05	7,73E -06	7,83E -07	0,00E +00	3,25E -06	0,00E +00	7,97E 11	-5,94E -05
	ADP <sub>fossil</sub>	MJ	6,65E +02	6,03E +02	1,43E +01	4,77E +01	3,20E +01	1,93E +00	0,00E +00	7,78E +00	0,00E +00	2,12E -03	-2,10E +01
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,45E +01	1,08E +01	4,14E -02	3,65E +00	1,14E -01	3,63E -01	0,00E +00	2,91E -02	0,00E +00	3,02E -06	-1,73E -01

GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADP<sub>minerals and metals</sub> = Abiotic depletion potential for non-fossil resources; ADP<sub>fossil</sub> = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.

The results of the environmental impact indicators of ADP<sub>minerals and metals</sub>, ADP<sub>fossil</sub> and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 3,74E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## KUADRA H, 120 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	5,67E +01	3,96E +01	2,01E -01	1,69E +01	6,96E -01	7,41E -02	0,00E +00	1,65E -01	0,00E +00	1,19E -05	-8,19E +00
	PERM	MJ	2,20E +01	9,16E +00	4,71E -02	1,28E +01	1,56E -01	1,95E -02	0,00E +00	4,07E -02	0,00E +00	2,58E -06	-1,03E -01
	PERT	MJ	7,88E +01	4,88E +01	2,48E -01	2,97E +01	8,52E -01	9,36E -02	0,00E +00	2,06E -01	0,00E +00	1,45E -05	-8,29E +00
	PENRE	MJ	7,21E +02	6,55E +02	1,52E +01	5,13E +01	3,39E +01	2,06E +00	0,00E +00	8,25E +00	0,00E +00	2,25E -03	-2,23E +01
	PENRM	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
	PENRT	MJ	7,21E +02	6,55E +02	1,52E +01	5,13E +01	3,39E +01	2,06E +00	0,00E +00	8,25E +00	0,00E +00	2,25E -03	-2,23E +01
	SM	kg	7,14E -01	7,14E -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
	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
	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
	FW	m3	4,64E -01	3,71E -01	1,49E -03	9,08E -02	4,56E -03	1,13E -02	0,00E +00	1,11E -03	0,00E +00	1,07E -07	-5,80E -02
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	2,04E -03	1,96E -03	3,70E -05	4,15E -05	8,14E -05	4,89E -06	0,00E +00	2,15E -05	0,00E +00	5,80E -09	-2,47E -04
	NHWD	kg	4,64E +00	3,32E +00	7,31E -01	5,97E -01	1,54E +00	7,10E -01	0,00E +00	2,54E -01	0,00E +00	2,84E -06	-4,07E -01
	RWD	kg	1,81E -03	1,60E -03	9,65E -05	1,09E -04	2,14E -04	1,08E -05	0,00E +00	5,13E -05	0,00E +00	1,46E -08	-1,32E -04
	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
	MFR	kg	5,34E +00	0,00E +00	0,00E +00	5,34E +00	0,00E +00	2,06E +00	0,00E +00	0,00E +00	2,04E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

# ENVIRONMENTAL PERFORMANCES

## GIADA H, 120 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D	
Environmental impacts	GWP <sub>total</sub>	kg CO <sub>2</sub> eq.	4,14E +01	3,65E +01	7,50E -01	4,18E +00	1,70E +00	4,63E +00	0,00E +00	4,00E -01	0,00E +00	0,00E +00	-1,13E +00	
	GWP <sub>fossil</sub>	kg CO <sub>2</sub> eq.	4,04E +01	3,56E +01	7,48E -01	4,04E +00	1,69E +00	6,14E -01	0,00E +00	3,98E -01	0,00E +00	0,00E +00	-1,09E +00	
	GWP <sub>biogenic</sub>	kg CO <sub>2</sub> eq.	9,35E -01	8,05E -01	1,96E -03	1,28E -01	7,35E -03	4,01E +00	0,00E +00	1,55E -03	0,00E +00	0,00E +00	-1,19E -02	
	GWP <sub>luluc</sub>	kg CO <sub>2</sub> eq.	9,07E -02	7,86E -02	3,01E -04	1,18E -02	8,73E -04	1,03E -04	0,00E +00	2,38E -04	0,00E +00	0,00E +00	-2,45E -02	
	ODP	kg CFC-11 eq.	5,69E -06	5,06E -06	1,73E -07	4,52E -07	3,73E -07	2,99E -08	0,00E +00	8,71E -08	0,00E +00	0,00E +00	-1,13E -07	
	AP	mol H+ eq.	2,83E -01	2,67E -01	3,22E -03	1,32E -02	7,16E -03	1,11E -03	0,00E +00	1,46E -03	0,00E +00	0,00E +00	-7,98E -03	
	EP <sub>freshwater</sub>	kg P eq.	6,72E -03	5,57E -03	4,82E -05	1,10E -03	1,67E -04	2,44E -05	0,00E +00	3,71E -05	0,00E +00	0,00E +00	-7,10E -04	
	EP <sub>marine</sub>	kg N eq.	5,06E -02	4,40E -02	8,96E -04	5,72E -03	2,14E -03	1,60E -03	0,00E +00	3,77E -04	0,00E +00	0,00E +00	-1,09E -03	
	EP <sub>terrestrial</sub>	mol N eq.	5,49E -01	5,03E -01	9,81E -03	3,62E -02	2,32E -02	3,80E -03	0,00E +00	4,11E -03	0,00E +00	0,00E +00	-1,03E -02	
	POCP	kg NMVOC eq.	1,45E -01	1,33E -01	3,03E -03	9,28E -03	7,11E -03	1,63E -03	0,00E +00	1,32E -03	0,00E +00	0,00E +00	-3,61E -03	
	ADP <sub>minerals and metals</sub>	kg Sb eq.	5,55E -04	5,35E -04	2,60E -06	1,80E -05	6,17E -06	8,10E -07	0,00E +00	2,48E -06	0,00E +00	0,00E +00	-6,09E -05	
	ADP <sub>fossil</sub>	MJ	5,31E +02	4,71E +02	1,13E +01	4,91E +01	2,55E +01	2,00E +00	0,00E +00	5,94E +00	0,00E +00	0,00E +00	-1,69E +01	
	WDP	m <sup>3</sup> <sub>deprived</sub> eq.	1,17E +01	8,42E +00	3,28E -02	3,20E +00	9,12E -02	3,73E -01	0,00E +00	2,22E -02	0,00E +00	0,00E +00	-1,56E -01	
	GWP = Global warming potential (total, fossil fuels, biogenic, land use and land use change); ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential; EP = Eutrophication potential (freshwater, marine, terrestrial); POCP = Formation potential of tropospheric ozone; ADPminerals and metals = Abiotic depletion potential for non-fossil resources; ADPfossil = Abiotic depletion potential for fossil resources; WDP = Water user deprivation potential.													

The results of the environmental impact indicators of ADPminerals and metals, ADPfossil and WDP shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator. The additional environmental impact indicators have been calculated for all the products, but not reported in the EPD.

The biogenic carbon content in the accompanying packaging of this product is: 3,89E+00 kg C

# ENVIRONMENTAL PERFORMANCES

## GIADA H, 120 cm

	Parameters	Unit	Total A1-A3	A1	A2	A3	A4	A5	C1	C2	C3	C4	D
Resource use	PERE	MJ	4,90E +01	3,13E +01	1,59E -01	1,76E +01	5,56E -01	7,66E -02	0,00E +00	1,26E -01	0,00E +00	0,00E +00	-6,52E +00
	PERM	MJ	2,04E +01	7,02E +00	3,72E -02	1,34E +01	1,25E -01	2,01E -02	0,00E +00	3,11E -02	0,00E +00	0,00E +00	-8,60E -02
	PERT	MJ	6,94E +01	3,83E +01	1,96E -01	3,10E +01	6,80E -01	9,67E -02	0,00E +00	1,57E -01	0,00E +00	0,00E +00	-6,60E +00
	PENRE	MJ	5,76E +02	5,11E +02	1,20E +01	5,28E +01	2,71E +01	2,14E +00	0,00E +00	6,30E +00	0,00E +00	0,00E +00	-1,79E +01
	PENRM	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
	PENRT	MJ	5,76E +02	5,11E +02	1,20E +01	5,28E +01	2,71E +01	2,14E +00	0,00E +00	6,30E +00	0,00E +00	0,00E +00	-1,79E +01
	SM	kg	5,39E -01	5,39E -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
	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
	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
	FW	m3	3,73E -01	2,91E -01	1,18E -03	8,12E -02	3,64E -03	1,17E -02	0,00E +00	8,48E -04	0,00E +00	0,00E +00	-4,64E -02
	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy 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 resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Net use of fresh water.												
Waste and output flows	HWD	kg	1,91E -03	1,84E -03	2,92E -05	4,28E -05	6,50E -05	5,07E -06	0,00E +00	1,64E -05	0,00E +00	0,00E +00	-2,54E -04
	NHWD	kg	3,79E +00	2,61E +00	5,77E -01	6,08E -01	1,23E +00	7,37E -01	0,00E +00	1,94E -01	0,00E +00	0,00E +00	-3,25E -01
	RWD	kg	1,44E -03	1,25E -03	7,65E -05	1,12E -04	1,71E -04	1,12E -05	0,00E +00	3,92E -05	0,00E +00	0,00E +00	-1,06E -04
	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
	MFR	kg	4,17E +00	0,00E +00	0,00E +00	4,17E +00	0,00E +00	2,15E +00	0,00E +00	0,00E +00	1,56E +01	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
	EEE	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
	EET	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
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy.													

## CALCULATION RULES

The environmental profiles of the shower enclosures presented in this EPD are based on a Life Cycle Assessment, conducted according to the ISO 14040:2006, ISO 14044:2006, ISO 14025:2010 and EN 15804:2012+A2:2019 standards. The LCA and the EPD are also in compliance with the PCR ICMQ-001/15 V. 3, for construction products, and the Program Guidelines of EPDIItaly, Revision 5.2 of 16.02.2022. The environmental analysis covers the entire life-cycle of the product, according to the from cradle to gate with options scenario, in which infrastructures, production plants and their maintenance are not considered.

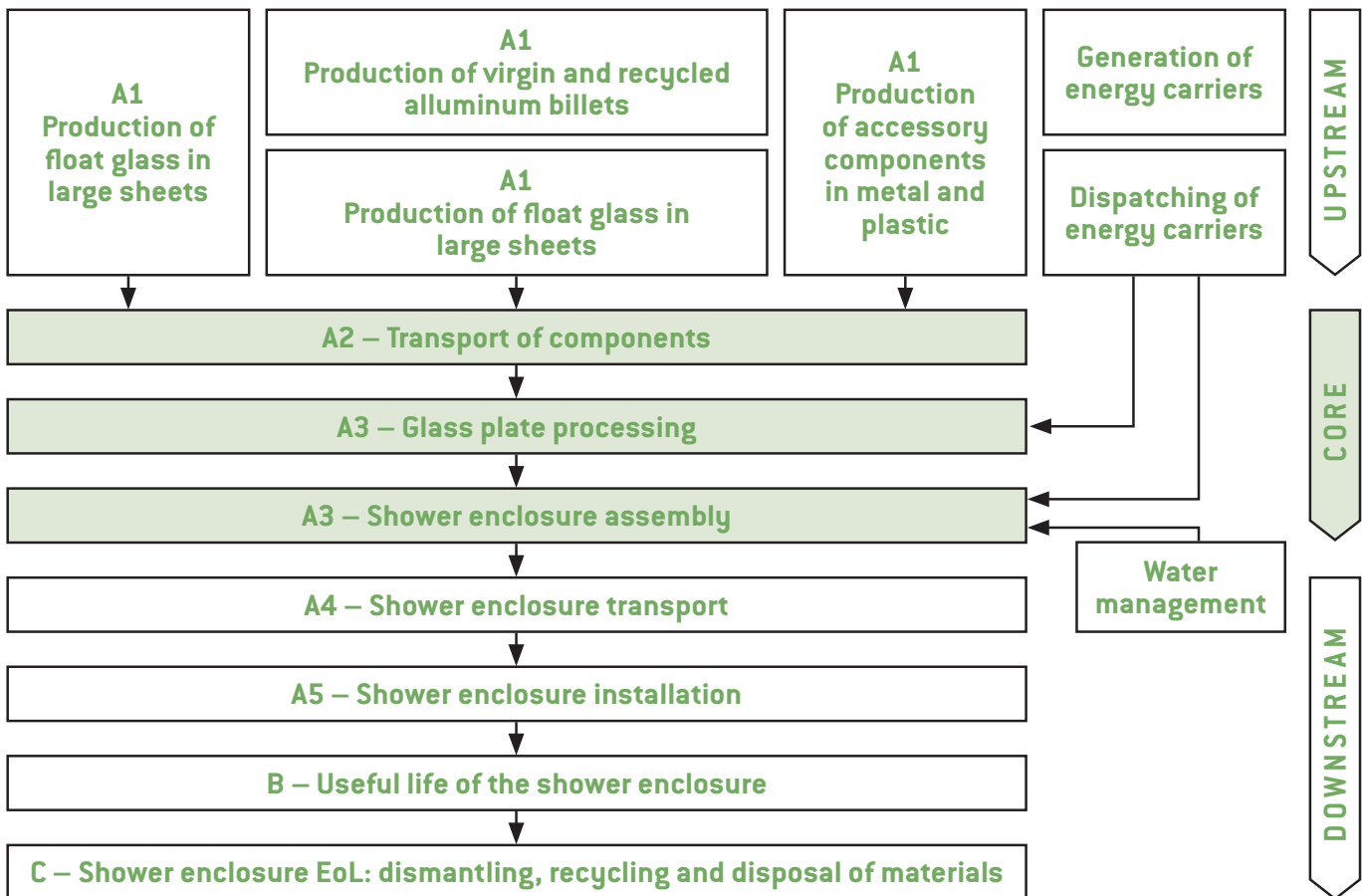
The LCA study is based on primary data collected by Novellini S.p.A. regarding the bill of materials of the nine types of shower enclosures, the production of aluminum billets, the extrusion and surface finishing of profiles, the processing of glass sheets with cutting and tempering, the assembly and packaging processes of the shower enclosures; the transport for the procurement of raw materials and the delivery of the finished product are also included. Ecoinvent V. 3.8 database was adopted to describe the processes for which primary data were not available; the LCA model was built with SimaPro V. 9.3 software in order to obtain the environmental results presented in this EPD.

The assembly of the different shower enclosures take place in the same way, therefore significant variation among the energy consumption due to different products production are not conceivable. For this reason, the consumption of electricity, natural gas, diesel for handling and water are allocated by dividing the total amount according to the total production. No cut-off criteria were applied to the production stage and the data quality was verified in accordance with the reference standards and PCR.



# SYSTEM BOUNDARIES

The system boundaries of the analyzed process include all the stages from the procurement of raw materials to the waste management at the end of the product's life, with the subdivision into Upstream, Core and Downstream process. The Upstream process include the production of aluminum billets, the extrusion and surface treatment of profiles, the production of float glass sheets, the extraction and processing of the materials necessary for the production of the ancillary components. The generation and dispatching of the energy carriers such as electricity and natural gas also fall in this stage. The transport of raw materials and semi-finished products to the assembly plant is included in the Core process, together with the cutting and tempering of glass sheets, the assembly of shower enclosures, the water and waste management, the on-site emissions. In the Downstream phase, the transport to the average customer and the installation of the shower enclosures are included, in addition to the end-of-life scenarios with the uninstallation of the products and the collection of materials to be allocated to the recycling process.



# REFERENCES

EN ISO 14040:2006 – Environmental management – Life cycle assessment – Principles and framework;  
 EN ISO 14044:2006 – Environmental management – Life cycle assessment – Requirements and guidelines;  
 EN ISO 14025:2010 – Environmental labels and declarations – Type III environmental declarations – Principles and procedures;  
 EN 15804:2012+A2:2019 – Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products;  
 PCR ICMQ-001/15 – Prodotti e servizi per le costruzioni, Version 3 of 02.12.2019, valid until 01.12.2024;  
 Program Guidelines of EPDIItaly, Revision 5.2 of 16.02.2022.  
 Report di Analisi di Life Cycle Assessment e Environmental Product Declaration di box doccia, Revision 2 of 26-09-2022  
 AIB – European Residual Mixes. Results of the calculation of Residual Mixes for the year 2021, Version 1.0, 2022-05-31



**NOVELLINI**