

ENVIRONMENTAL PRODUCT DECLARATION FUME CUPBOARD BECOME ST1500



CPC CODE: 3814 OTHER FURNITURE
PCR: 2012:19 VERSION 2.01
REGISTRATION NUMBER: S-P-00529
PUBLICATION: 2014/02/28
REVISION: 2021/06/23
VALIDITY: 2026/05/16
GEOGRAPHIC VALIDITY: International
CHAIR OF THE PCR REVIEW: Gorka Benito Alonso

COMPANY AND PRODUCT INFORMATION

Burdinola S. Coop. founded in 1978 in Amoroto (Bizkaia), is a company specialized in the management and integral development of laboratory projects in any of its phases, from consultancy, engineering, installation, training and commissioning, to after-sales service; including furniture and fume cupboards of own manufacture.

Burdinola offers advanced technology solutions serving the premises of sustainability, ecodesign and applicable standards, applicable in both the global scientific building, and in the specifics of laboratory furniture.

Safety is Burdinola's major value proposal and included in their mission as follows: *"We create the safest and most efficient laboratories in the world where researchers enjoy working towards a better society"*.



Always at the forefront of innovation, Burdinola designs and manufactures our new become range on the basis of strict requirements. Some of these requirements are part of the "Cradle to Cradle" philosophy – based on the environmental control of the product's full life cycle. Our determined commitment to the future is therefore based on working together with our customers to enhance their capacity to self-analyse capacity and integrate sustainability in the company in the three functional spheres:

1. Product: Selecting safe and recyclable or biodegradable materials, optimizing chemical ingredients, designing products for recycling, keeping the materials in closed-loop in multiple product life cycles.
2. Internal Operations and Processes: Applying the "Cradle to Cradle" to internal processes, using safe chemical processes, maximizing the use of renewable energy, optimizing the carbon/water footprint, creating a healthy and productive work.
3. Organisational Education: Educating the staff on the philosophy and premises of ecological design and sustainability, adopting and promoting eco-effective vision, creating structures top-down and bottom-up to maximize the value of the skills and perspectives of all staff, integrating the values of the "Cradle to Cradle", in making decisions and the success.

3 different scenarios are included in this Environmental Product Declaration:

- Fume cupboard BECOME ST1500, not working during use phase (Off)
- Fume cupboard BECOME ST1500, working during use phase but without Caresafe Curtain System (On)
- Fume cupboard BECOME ST1500, with Caresafe Curtain System (On+CS)

In accordance with the requirements for the reference PCR, similar scenarios have been included in the same declaration but reported as separate results.

FUME CUPBOARD BECOME ST 1500	Material	kg
Plastic	ABS	4,0095
	PC	0,54
	PE	0,43
	Poliamide 6.6	0,34
	PP	3,05
	PVC	2,44
	Metacrilate	0,45
Metal	Steel	149,28
	Brass	0,72
	Aluminium	24,5
	Cooper	0,21
Wood and paper	Wood Board	67,99
	paper	0,031
Electronics	Electronics	6,33
	Cable	1,37
Gres	Gres	50,9
Glass	Glass	22,6
Others	Silicone	0,31
	Adhesives	0,01
		335.51

Table 1. Cupboard materials

PACKAGING	Material	kg
Plastic	Film	0,14
	Poliestirene	0,06
Wood and paper	Pale	46,00
	Paper Board	0,00
		46,26

Table 2. Cupboard packaging



The packaging of the showcases

The product complies with current legislation on the presence of toxic and hazardous substances. It has been estimated a 40% of recycled raw material used in the materials of the cupboard manufacturing, coming from the steel used.

CHANGES IN THE PRODUCT OF THE PREVIOUS EPD

In terms of changes from previous versions, there have been several adaptations to the GPI and PCR, as well as changes in the inventory data:

- Change in PCR and GPI versions.
- Change in the version of the Ecoinvent database.

	PCR	CCP	GPI
EPD 2014:	2012:19 Version 1.0	38140 Other furniture	Version 2.01
EPD 2016:	2012:19 Version 1.0	38140 Other furniture	Version 2.01
EPD 2017:	2012:19 Version 1.1	3812 & 3814 Other furniture used in offices and other furniture	N.E.C. Version 2.5
EPD 2021:	2012:19 Version 2.01	3812/3813/3814 Furniture, except seats and mattresses	Version 3.01

In the case of the fume cupboard, the following elements have changed in its design:

- The board for the registrable covers has been replaced. Before it was the FINSA board called "Superpan" and now it is the FINSA board called "Fimapan". The thicknesses and dimensions remain the same.
- The difference between SUPERPAN and FIMAPAN is that SUPERPAN has a 2mm particle finish on both sides of the board, being a more polished and finer finish. But the core of the board is the same.
- FIMAPAN has an EPD verified by the International EPD System, so in this update of the LCA study a new environmental indicator has been created for the LCA database based on the EPD data.
- Analysing the technical data sheets of SUPERPAN and FIMAPAN, it can be seen that the technical characteristics of both boards are very similar, such as density. That is why the weight and/or volume of the board have not been modified.
- Core changes in each revision:
 - Electrical mix.
 - Waste.
- Downstream changes in each revision:
 - Electrical mix for showcase use.

FUNCTIONAL UNIT.

One unit of Fume cupboard BECOME ST1500 model used and maintained during 15 years.

ENVIRONMENTAL PROFILE

ENVIRONMENTAL IMPACT	UP	CORE	DOWN			TOTAL		
			APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS	APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS
Global Warming Potential (GWP) Fossil (kg CO ₂ eq.)	1,49E+03	1,23E+02	1,25E+02	3,55E+04	2,36E+04	1,73E+03	3,71E+04	2,52E+04
Global Warming Potential (GWP) Biogenic (kg CO ₂ eq.)	6,79E+00	7,09E-01	4,59E+00	1,97E+02	1,32E+02	1,21E+01	2,04E+02	1,40E+02
Global Warming Potential (GWP) Land use and land transformation (kg CO ₂ eq.)	5,66E+00	6,71E-01	1,15E-01	8,35E+01	5,54E+01	6,45E+00	8,98E+01	6,17E+01
Global Warming Potential (GWP) TOTAL (kg CO ₂ eq.)	1,50E+03	1,25E+02	1,30E+02	3,58E+04	2,38E+04	1,75E+03	3,74E+04	2,54E+04
Acidification Potential (AP) (kg SO ₂ eq.)	9,89E+00	1,34E+00	6,36E-01	1,64E+02	1,09E+02	1,19E+01	1,75E+02	1,20E+02
Eutrophication Potential (EP) (kg PO ₄ ³⁻ eq.)	1,40E+00	6,64E-02	1,01E-01	2,22E+01	1,47E+01	1,56E+00	2,36E+01	1,62E+01
Formation potential of tropospheric ozone (POCP) (kg NMVOC eq.)	6,37E+00	4,44E-01	5,26E-01	8,11E+01	5,40E+01	7,34E+00	8,80E+01	6,08E+01
Abiotic depletion potential – Elements (ADP-E) (kg Sb eq.)	4,83E-01	2,17E-03	2,78E-02	1,38E-01	1,01E-01	5,13E-01	6,23E-01	5,86E-01
Abiotic Depletion Potential – Fossil fuels (ADP-FF) (MJ)	1,66E+04	1,80E+03	1,63E+03	4,00E+05	2,66E+05	2,01E+04	4,18E+05	2,84E+05
Water scarcity potential (WSP) (m ³ eq.)	6,54E+02	5,82E+01	1,48E+01	8,04E+03	5,34E+03	7,27E+02	8,75E+03	6,05E+03

USE OF RESOURCES	UP	CORE	DOWN			TOTAL		
			APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS	APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS
Primary energy resources Renewable Used as energy carrier [MJ]	4,61E+03	2,32E+03	9,69E+01	1,23E+05	8,18E+04	7,02E+03	1,30E+05	4,91E+04
Primary energy resources Renewable Used as raw material [MJ]	4,20E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,20E+01	4,20E+01	4,20E+01
Primary energy resources Renewable TOTAL [MJ]	4,65E+03	2,32E+03	9,69E+01	1,23E+05	8,18E+04	7,06E+03	1,30E+05	4,92E+04
Primary energy resources Non - Renewable Used as energy carrier [MJ]	1,94E+04	2,04E+03	1,74E+03	7,42E+05	4,92E+05	2,32E+04	7,63E+05	5,14E+05
Primary energy resources Non - Renewable Used as raw material [MJ]	3,80E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,80E+02	3,80E+02	3,80E+02
Primary energy resources Non - Renewable TOTAL [MJ]	1,98E+04	2,04E+03	1,74E+03	7,42E+05	4,92E+05	2,36E+04	7,64E+05	5,14E+05
Secondary material [kg]	5,93E+01	0,00E+00	6,80E-02	6,80E-02	6,80E-02	5,94E+01	5,94E+01	5,94E+01
Renewable secondary fuels [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
Non - Renewable secondary fuels [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
Net use of fresh water [m³]	2,69E+01	1,53E+00	6,18E-01	6,08E+02	4,03E+02	2,90E+01	6,36E+02	4,32E+02


RESIDUES	UP	CORE	DOWN			TOTAL		
			APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS	APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS
Hazardous waste disposed (kg)	8,86E-01	3,25E-03	1,13E-02	2,59E-01	8,24E-02	9,01E-01	1,15E+00	9,72E-01
Non-Hazardous waste disposed (kg)	3,25E+02	4,64E+01	1,38E+02	2,62E+03	1,28E+03	5,09E+02	2,99E+03	1,65E+03
Radioactive waste disposed (kg)	6,67E-02	8,09E-03	9,41E-03	5,27E+00	1,51E-01	8,42E-02	5,35E+00	2,25E-01

Components for reuse (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
Material for recycling (kg)	0,00E+00	1,50E+01	2,50E+02	2,50E+02	2,50E+02	2,65E+02	2,65E+02	2,65E+02
Materials for energy recovery (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
Exported energy, electricity (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
Exported energy, thermal (MJ)	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00

OTHER INDICATORS	UP	CORE	DOWN			TOTAL		
			APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS	APAGADA	ENCENDIDA SIN CS	ENCENDIDA CON CS
Human toxicity, cancer impacts (USEtox2) (cases)	3,42E-07	1,23E-08	8,58E-09	6,74E-07	4,50E-07	3,62E-07	1,03E-06	8,04E-07
Human toxicity, non-cancer impacts (USEtox2) (cases)	9,17E-08	2,01E-08	2,73E-08	2,17E-07	1,53E-07	1,39E-07	3,29E-07	2,65E-07
Fresh water ecotoxicity (USEtox2) (PAF.m³.day)	7,39E+00	1,24E+01	7,22E-01	1,60E+01	1,09E+01	2,05E+01	3,58E+01	3,07E+01
Land use (Recipe Endpoint (H)) (species.yr)	1,34E-06	7,53E-07	5,11E-08	1,16E-05	7,72E-06	2,15E-06	1,37E-05	9,82E-06

VERIFICATION AND REGISTRATION INFORMATION

EPD programme	The International EPD® System EPD International AB, Box 210 60, SE-100 31 Stockholm, Sweden. E-mail: www.environdec.com
Registration N°	S-P-00529
Date of publication	January 2014
Date of update	2021-06-23
EPD validity	2026-05-16
EPD valid within the following geographical area	Global
EPD Type	<input type="checkbox"/> Cradle-to-gate <input checked="" type="checkbox"/> Cradle-to-grave
Independent verification of the declaration and data, according to ISO 14025:2006	<input checked="" type="checkbox"/> EPD External verification <input type="checkbox"/> EPD Process certification
Procedure for follow-up of data during EPD validity involves third party verifier	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Third party verifier	TECNALIA R&I CERTIFICACIÓN Maria Feced info@tecnaliacertificacion.com
Third party verifier accredited or approved by	ENAC n° 125/C-PR283
Reference Product category rules (PCR)	Furniture, except seats and mattresses, PCR 2012:19, version 2.01, CPC 3814 Other furniture
Product category rules (PCR) review conducted by	The Technical Committee of the International EPD® System. Chair: Gorka Benito Alonso Contact via info@environdec.com

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EPD available in www.environdec.com.

EPDs within the same product category but from different programmes may not be comparable.

The verifier and the programme operator do not make any claim nor have any responsibility of the legality of the product.

VERIFICATION STATEMENT CERTIFICATE CERTIFICADO DE DECLARACIÓN DE VERIFICACIÓN

Certificate No. / Certificado nº: EPD00107

TECNALIA R&I CERTIFICACION S.L., confirms that independent third-party verification has been conducted of the Environmental Product Declaration (EPD) on behalf of:

TECNALIA R&I CERTIFICACION S.L., confirma que se ha realizado verificación de tercera parte independiente de la Declaración Ambiental de Producto (DAP) en nombre de:

BURDINOLA, S. COOP
Crta. Lekeitio, km. 53,5
48289 AMOROTO (Bizkaia) (SPAIN)

for the following product(s):
para el siguiente(s) producto(s):

FUME CUPBOARD BECOME ST1500
VITRINA BECOME ST1500

with registration number **S-P-00529** in the International EPD® System (www.environdec.com)
con número de registro S-P-00529 en el Sistema Internacional EPD® (www.environdec.com)

it's in conformity with:
es conforme con:

- **ISO 14025:2010 Environmental labels and declarations. Type III environmental declarations.**
- **General Programme Instructions for the International EPD® System v.3.01.**
- **PCR: Furniture, except seats and mattresses PCR 2012:19, Version 2.01**
- **CPC Code: 3814 Other furniture.**

Issued date / Fecha de emisión: 22/06/2017
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Valid until / Válido hasta: 16/05/2026
Serial Nº / Nº Serie: EPD0010702-E


[Signature]
Carlos Nazabal Alsua
Manager


ENAC
CERTIFICACIÓN
Nº 125/C-PR283

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