

WATER-BASED ENAMELS



Registration:
S-P-05948

Publication
date:
2022/07/25

Valid
until:
2027/07/25

Programme:
The International EPD® System
www.environdec.com

Programme
Operator:
EPD International AB



Cromology

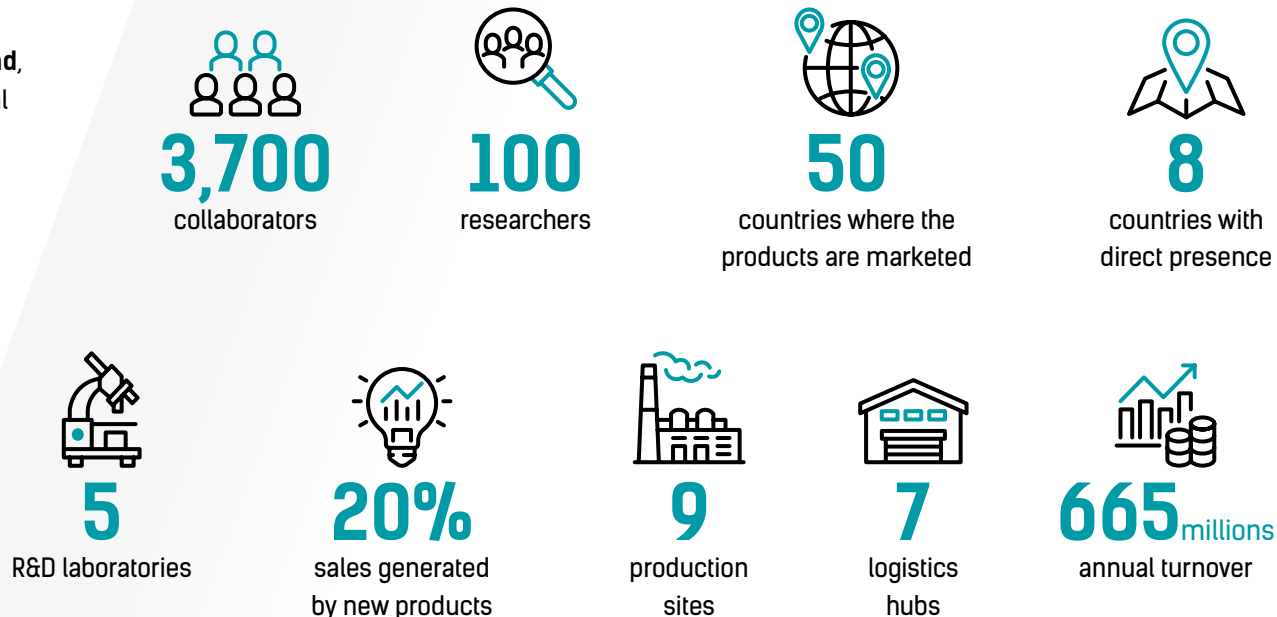
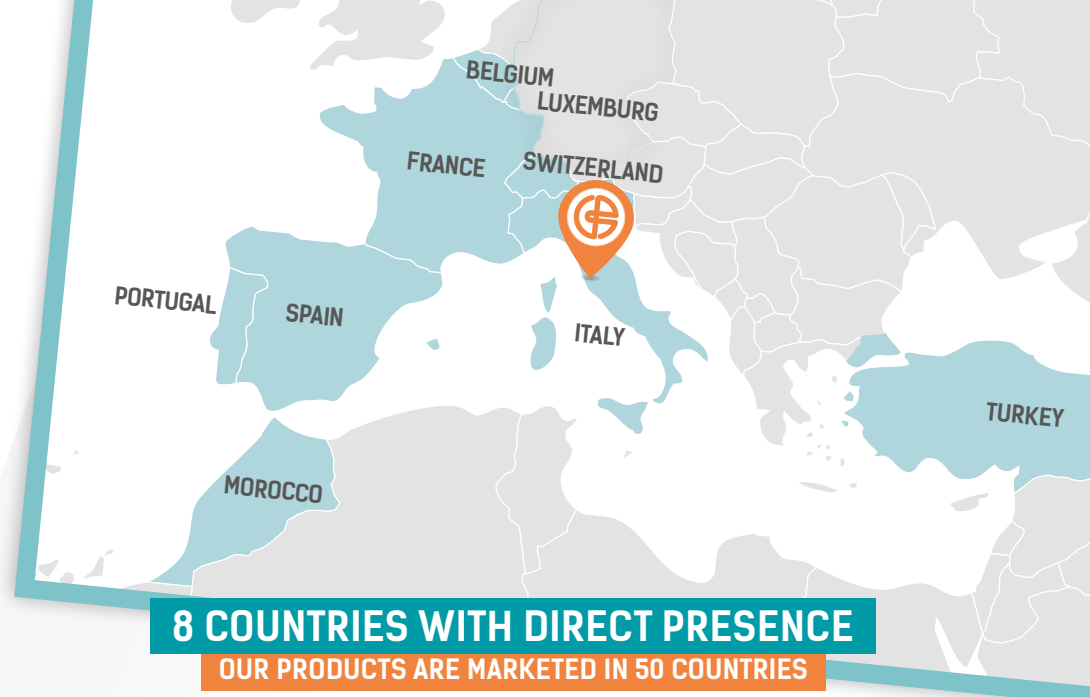
The Cromology Group was founded in 2015, at the end of a decades-long transformation process that began in the late 1990s, when Lafarge Peintures created the Specialty Materials division that was later Materis Paints and quickly became a player on the global and emerging markets.

Today, Cromology retains that pioneering spirit of its Dutch origins in the 1700s, confirming itself as a solid, **worldwide group and a leader in Southern Europe**, with a presence in **50 countries**, and a global annual turnover of more than **600 mln/€**. The group's strength is expressed through its **3700 employees** including **100 researchers** and **highly specialised technicians** – **9 production sites** and **5 R&D laboratories**.

Cromology's brands are marketed in over 50 countries worldwide, with a direct **presence in 8 countries**. In each market, Cromology's brands are an expression of its history, professionalism and capacity for innovation. **20% of the turnover is generated by new products**.

Cromology Italia believes in a **multi-channel strategy diversified by brand**, range of services and type of customer: from designers to professional applicators and private customers with an offer of **7 specialised brands**, **Cromology holds 7% of the Italian market**, an absolute leadership position.

With **headquarters in Porcari**, in the province of Lucca, the company counts on **two state-of-the-art production sites** of 80,000 square metres, a 45,000 square metre **logistics hub** and the cooperation throughout Italy of **400 collaborators**, including head office staff and a sales network. With its own brand portfolio and a wide range of products and services, **Cromology's aim is to be a trusted partner alongside customers, professionals and private individuals, in order to achieve professional excellence together**.



SUSTAINABILITY

WE ARE COMMITTED TO EVERY OPERATIONAL PHASE

The Cromology Group’s approach to sustainability stems from its Mission: **to responsibly protect and colour homes to improve everyone’s life.**

Cromology places Corporate Social Responsibility (CSR) at the heart of its strategy, at the same level as profitable growth and operational excellence. With a view to continuous improvement, Cromology integrates its CSR objectives into business development and new product launches.

Cromology’s CSR approach relates to the Sustainable Development Goals (SDGs) defined by the United Nations. Cromology has identified the 5 SDGs most relevant to its activities and on the basis of these is committed to responsible and sustainable development in order to maximise the value generated for customers, employees, shareholders, suppliers, civil society and local communities.

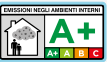
SUSTAINABLE DEVELOPMENT



CROMOLOGY’S SUSTAINABILITY



PRODUCT SAFETY AND LIABILITY



INDOOR AIR QUALITY



HACCP
HYGIENE-HEALTHCARE
PREVENTION PROTOCOL



ISO 9001:2015 QUALITY
MANAGEMENT SYSTEM



UNI EN 15457
ANTI-MOULD EFFICACY



ISO 22196
BACTERIOSTATIC
CERTIFICATE SILVER ACT
TECHNOLOGY

ENVIRONMENTAL RESPONSIBILITY



ISO 14001:2015
ENVIRONMENTAL PROTECTION
IN INDUSTRIAL PRODUCTION
PROCESSES



ENVIRONMENTAL PRODUCT
DECLARATION



ECOLABEL

100% GREEN ENERGY
CERTIFICATION

SOCIAL RESPONSIBILITY



ISO 45001:2018
OCCUPATIONAL HEALTH AND
SAFETY MANAGEMENT
SYSTEM

DLGS 231/2001
CORPORATE ADMINISTRATIVE
LIABILITY

CSR



ENVIRONMENTAL DECLARATION

EPD PROGRAMME GENERAL INFORMATION

EPD PROGRAMME	The International EPD® System - www.environdec.com
EPD PROGRAMME OPERATOR	EPD International AB Box 210 60, SE-100 31 Stockholm, Sweden.
PRODUCT CATEGORY RULES (PCR)	International EPD System - PCR 2019:14 - "Construction products" - Version 1.11 EN 15804:2012+A2:2019 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products."
EPD DRAFTED BY	Leyton Italia s.r.l
DECLARATION HOLDER	Dr. Marco Demi Cromology Italia S.p.A.
CHECKED BY	Guido Croce
GEOGRAPHICAL REFERENCE	International
EPD REGISTRATION NUMBER	S-P-05948
EXPIRY DATE	25/07/2027
PUBLICATION DATE	25/07/2022
PRODUCT DESCRIPTION	Water-based enamels
APPLICATION SCOPE	The LCA analysis was conducted according to the ISO 14025, ISO 14040, ISO 14044 and EN15804 standards. Both process-specific data and data from the Ecoinvent 3.6 database were used. The methods for calculating and assessing the impacts were used as defined in 2019 EN 15804 2012+A2:2019. The LCA study covers the production phases of raw materials and energy; transport of materials; production at the company's sites; and the end of life of the material.

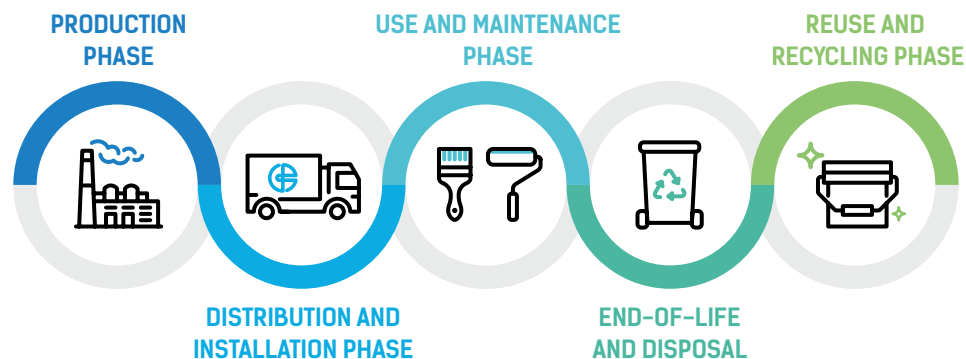
The abbreviation EPD stands for **Environmental Product Declaration** and is a document in which the environmental performance of a product is described in the form of standardised and objective data.

It makes it possible to analyse and quantify how much energy and natural resources are used by production and distribution processes, how much CO₂ is emitted into the atmosphere, what materials are used for packaging and how much waste is generated.

In the field of construction, **the EPD is an essential basis for professionals** such as architects and designers when it comes to the overall planning and evaluation of interventions. As the validation of the EPD must be performed by recognised Certification Bodies, it represents an important act of transparency and accountability for the market.

EPDs, created on a voluntary basis, must be prepared with reference to the **LCA (Life Cycle Assessment)** which is an analytical and systematic methodology that assesses the environmental significance of a product or service throughout its entire life cycle. LCA is the methodology that serves as the technical basis for a wide range of possible actions aimed at increasing the sustainability of products, as it helps to understand the impact generated towards the environment by products. The PCR (Product Category Rules) contain the rules for conducting the LCA, which must also comply with the international standard EN 15804 for construction products.

This EPD refers to WATER-BASED ENAMELS.



THE BALDINI VERNICI BRAND

MISSION

Baldini Vernici is a flexible and dynamic company with consolidated experience. Present on the market since 1974, it proposes a complete offer oriented to low environmental impact and sustainable development.

Baldini Vernici was among the first brands in the sector to obtain the Ecolabel. Baldini Vernici's strategy is oriented towards the creation of an offer of paint systems with **high quality standards and solutions that respect environmental requirements and the health of those who apply the products and spend time on the premises.**

Its range, which is constantly being renewed and diversified, is aimed at both the 'do-it-yourself' consumer and the professional.



A+ CERTIFICATE



ANTI-MOULD EFFICACY



HACCP CERTIFICATE



ANTI-MOULD EFFICACY



SILVER ACT TECHNOLOGY



ECOLABEL



CAM





SYNUIL TOP+

Synuil Top+ is an aqueous phase polyurethane alkyd enamel with superior, long-lasting performance due to its high strength and elasticity.

Excellent covering power. Easy application and excellent adhesion to the substrate. Suitable for application on iron, aluminium, galvanised sheet metal, PVC, glass and wood. Low VOC emission value, odourless.

COMPLIANT WITH THE HACCP STANDARD

The product is suitable for use in environments where foodstuffs are present according to UNI 11021:2002. Ideal for high traffic areas where maximum hygiene is required.



➤ SUPERIOR
PERFORMANCE

➤ SCRATCH AND IMPACT
RESISTANCE

➤ EXCELLENT
COVERING POWER

TECHNICAL DATA	METHOD	MAIN DATA AT 20°C AND 60% R.H.	
		SYNUIL TOP+ GLOSS	SYNUIL TOP+ MATT
Contrast ratio	M.U. 1631	94	94
Kubelka-Munk yield	ISO 6504-1	18	15.6
Washability	ISO 11998	-	-
Dirt trap ΔL	UNI 10792	-	-

CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.75 L	5.13E-03	1.32E-01	2.05E-03	1.47E-02	1.00E-01
2.5 L	3.69E-03	1.00E-01	6.15E-04	1.12E-02	6.00E-02

SYNUIL TOP+ GLOSS	
Water	< 10
Loads	< 30
Emulsions	< 65
Additives	< 15



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.75 L	5.05E-03	1.30E-01	2.02E-03	1.11E-02	7.58E-02
2.5 L	3.64E-03	9.88E-02	6.06E-04	8.48E-03	4.55E-02

SYNUIL TOP+ MATT	
Water	< 15
Loads	< 35
Emulsions	< 55
Additives	< 15

ENVIRONMENTAL DECLARATION PROCESS

DECLARED UNIT:

For this EPD, in accordance with the reference standards, the concept of “declared unit” is used instead of “functional unit”.

The declared unit is the quantity of product required to produce 1 kg of finished product.

REFERENCE YEAR:

The data used refer to the calendar year 2020. Study carried out in 2021.

SYSTEM BOUNDARIES:

This EPD is of the “cradle to gate with options” type and includes forms A1 (Raw Materials), A2 (Transport), A3 (Production), C1 (Total/Partial Demolition), C2 (Transport to Landfill/Recovery Centre), C3 (Recovery/Reuse Process), C4 (Landfill) and D (Recovery/Reuse Potential).



	 PRODUCTION PHASE			 DISTRIBUTIONE & INSTALLATION PHASE		 USE AND MAINTENANCE PHASE							 END-OF-LIFE & DISPOSAL PHASE				 REUSE & RECYCLING PHASE
	Raw Materials	Transport	Production	Transport	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Energy use	Water use	Demolition (total / partial)	Transport (landfill / recovery centre)	Recovery / reuse	Landfill	Recovery / reuse potential
Forms	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declaration forms	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variables	Less than +10% for each product group					-	-	-	-	-	-	-	-	-	-	-	-
Site variations	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

SYNUIL TOP+ GLOSS

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	2.23E+03	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	2.20E+03	0.00E+00	5.77E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	2.64E+01	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	1.50E+00	0.00E+00	1.08E-05	0.00E+00
ODP	kg CFC11 eq	2.82E-04	0.00E+00	8.48E-09	0.00E+00
IRP	kBq U-235 eq	1.09E+02	0.00E+00	2.85E-03	0.00E+00
POCP	kg NMVOC eq	8.74E+00	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	1.67E-04	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	1.17E+01	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	6.25E-01	0.00E+00	5.59E-06	0.00E+00
EP, marine	kg N eq	3.39E+00	0.00E+00	4.80E-04	0.00E+00
EP, terrestrial	mol N eq	2.34E+01	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	1.68E+05	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	4.70E+04	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	8.33E+04	0.00E+00	1.31E-01	0.00E+00
> ETP, freshwater – metals	CTUe	3.73E+04	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	6.66E+03	0.00E+00	5.98E-01	0.00E+00
WDP	m ³ depriv.	1.82E+03	0.00E+00	8.03E-03	0.00E+00
RUP, fossils	MJ	4.10E+04	0.00E+00	5.68E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	2.29E-02	0.00E+00	1.12E-07	0.00E+00
HTP, non-cancer	CTUh	2.23E-04	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	1.19E-05	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	1.93E-04	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	1.79E-05	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	2.31E-05	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	2.22E-05	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	9.65E-07	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	4.39E+04	0.00E+00	6.04E-01	0.00E+00
PENRM	MJ	3.61E+03	0.00E+00	3.61E+03	0.00E+00
PENRE	MJ	7.60E-01	0.00E+00	9.42E-06	0.00E+00
PERT	MJ	2.38E+03	0.00E+00	6.92E-03	0.00E+00
PERM	MJ	1.39E+03	0.00E+00	1.94E-03	0.00E+00
PERE	MJ	9.86E+02	0.00E+00	4.98E-03	0.00E+00
ODP	kg CFC11 eq	2.82E-04	0.00E+00	8.48E-09	0.00E+00
WDP	m³	1.82E+03	0.00E+00	1.82E+03	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	2.95E-02	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	1.77E+02	0.00E+00	1.01E+00	0.00E+00
RWD	kg	5.23E-02	0.00E+00	3.84E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	2.12E+03	0.00E+00	1.44E-01	0.00E+00

ENVIRONMENTAL PERFORMANCE

SYNUIL TOP+ MATT

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	2.81E+03	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	2.77E+03	0.00E+00	5.77E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	3.35E+01	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	1.50E+00	0.00E+00	1.08E-05	0.00E+00
ODP	kg CFC11 eq	3.50E-04	0.00E+00	8.48E-09	0.00E+00
IRP	kBq U-235 eq	1.37E+02	0.00E+00	2.85E-03	0.00E+00
POCP	kg NMVOC eq	1.10E+01	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	2.10E-04	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	1.47E+01	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	7.86E-01	0.00E+00	5.59E-06	0.00E+00
EP, marine	kg N eq	4.26E+00	0.00E+00	4.80E-04	0.00E+00
EP, terrestrial	mol N eq	2.94E+01	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	2.11E+05	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	5.91E+04	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	1.05E+05	0.00E+00	1.31E-01	0.00E+00
> ETP, freshwater – metals	CTUe	4.69E+04	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	7.80E+03	0.00E+00	5.98E-01	0.00E+00
WDP	m ³ depriv.	2.28E+03	0.00E+00	8.03E-03	0.00E+00
RUP, fossils	MJ	5.16E+04	0.00E+00	5.68E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	2.89E-02	0.00E+00	1.12E-07	0.00E+00
HTP, non-cancer	CTUh	2.80E-04	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	1.50E-05	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	2.43E-04	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	2.26E-05	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	2.91E-05	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	2.79E-05	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	1.21E-06	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	5.53E+04	0.00E+00	6.03E-01	0.00E+00
PENRM	MJ	4.54E+03	0.00E+00	4.54E+03	0.00E+00
PENRE	MJ	3.85E-01	0.00E+00	9.41E-06	0.00E+00
PERT	MJ	2.89E+03	0.00E+00	6.91E-03	0.00E+00
PERM	MJ	1.65E+03	0.00E+00	1.94E-03	0.00E+00
PERE	MJ	1.24E+03	0.00E+00	4.97E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	3.70E-02	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	2.22E+02	0.00E+00	1.01E+00	0.00E+00
RWD	kg	6.58E-02	0.00E+00	3.84E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	Kg CO ₂ EQ	2.67E+03	0.00E+00	1.44E-01	0.00E+00



SYNUIL

Water-based Synuil is the water-based enamel that, thanks to its high coverage and ease of application, allows you to achieve excellent results on a variety of substrates both indoors and outdoors. Gloss and satin finish.

COMPLIANT WITH THE HACCP STANDARD

The product is suitable for use in environments where foodstuffs are present according to UNI 11021:2002. Ideal for high traffic areas where maximum hygiene is required.



- ODOURLESS
- READY-TO-USE
- EASY TO APPLY

TECHNICAL DATA	METHOD	MAIN DATA AT 20°C AND 60% R.H.		
		SYNUIL WATER-BASED GLOSS ENAMEL	SYNUIL WATER-BASED SATIN ENAMEL	SYNUIL WATER-BASED MATT ENAMEL
Contrast ratio	M.U. 1631	-	-	95.3 Average
Kubelka-Munk yield	ISO 6504-1	-	-	-
Washability	ISO 11998	-	-	-
Dirt trap ΔL	UNI 10792	-	-	-

CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.125 L	0.00E+00	3.20E-01	1.28E-02	7.04E-02	9.60E-02
0.5 L	0.00E+00	1.82E-01	3.20E-03	1.76E-02	1.20E-01
2.5 L	3.84E-03	1.04E-01	6.40E-04	8.96E-03	4.80E-02

SYNUIL WATER-BASED GLOSS ENAMEL	
Water	< 10
Loads	< 30
Emulsions	< 60
Additives	< 20



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.125 L	0.00E+00	3.08E-01	1.23E-02	6.77E-02	9.23E-02
0.5 L	0.00E+00	1.75E-01	3.08E-03	1.69E-02	1.15E-01
2.5 L	3.69E-03	1.00E-01	6.15E-04	8.62E-03	4.62E-02

SYNUIL WATER-BASED SATINED ENAMEL	
Water	< 20
Loads	< 30
Emulsions	< 50
Additives	< 20



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.125 L	0.00E+00	2.94E-01	1.18E-02	6.47E-02	8.82E-02
0.5 L	0.00E+00	1.68E-01	2.94E-03	1.62E-02	1.10E-01
2.5 L	3.53E-03	9.59E-02	5.88E-04	8.24E-03	4.41E-02

SYNUIL WATER-BASED MATT ENAMEL	
Water	< 25
Loads	< 35
Emulsions	< 45
Additives	< 15

ENVIRONMENTAL DECLARATION PROCESS

DECLARED UNIT:

For this EPD, in accordance with the reference standards, the concept of “declared unit” is used instead of “functional unit”.

The declared unit is the quantity of product required to produce 1 kg of finished product.

REFERENCE YEAR:

The data used refer to the calendar year 2020. Study carried out in 2021.

SYSTEM BOUNDARIES:

This EPD is of the “cradle to gate with options” type and includes forms A1 (Raw Materials), A2 (Transport), A3 (Production), C1 (Total/Partial Demolition), C2 (Transport to Landfill/Recovery Centre), C3 (Recovery/Reuse Process), C4 (Landfill) and D (Recovery/Reuse Potential).



	 PRODUCTION PHASE			 DISTRIBUTIONE & INSTALLATION PHASE		 USE AND MAINTENANCE PHASE							 END-OF-LIFE & DISPOSAL PHASE				 REUSE & RECYCLING PHASE
	Raw Materials	Transport	Production	Transport	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Energy use	Water use	Demolition (total / partial)	Transport (landfill / recovery centre)	Recovery / reuse	Landfill	Recovery / reuse potential
Forms	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declaration forms	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variables	Less than +10% for each product group					-	-	-	-	-	-	-	-	-	-	-	-
Site variations	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

SYNUIL WATER-BASED GLOSS ENAMEL

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	8.56E+00	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	8.47E+00	0.00E+00	5.78E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	5.97E-02	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	2.82E-02	0.00E+00	1.09E-05	0.00E+00
ODP	kg CFC11 eq	7.17E-06	0.00E+00	8.52E-09	0.00E+00
IRP	kBq U-235 eq	6.98E-01	0.00E+00	2.87E-03	0.00E+00
POCP	kg NMVOC eq	3.81E-02	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	5.00E-07	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	3.92E-02	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	2.72E-03	0.00E+00	5.60E-06	0.00E+00
EP, marine	kg N eq	9.53E-03	0.00E+00	4.81E-04	0.00E+00
EP, terrestrial	mol N eq	9.09E-02	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	2.01E+02	0.00E+00	3.13E+00	0.00E+00
> ETP, freshwater – organics	CTUe	1.07E+01	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	5.26E+01	0.00E+00	1.32E-01	0.00E+00
> ETP, freshwater – metals	CTUe	1.38E+02	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	2.14E+03	0.00E+00	6.01E-01	0.00E+00
WDP	m ³ depriv.	4.29E+00	0.00E+00	8.09E-03	0.00E+00
RUP, fossils	MJ	1.31E+02	0.00E+00	5.71E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	3.59E-05	0.00E+00	1.13E-07	0.00E+00
HTP, non-cancer	CTUh	2.37E-07	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	5.76E-09	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	1.63E-07	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	7.00E-08	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	3.66E-08	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	9.84E-09	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	2.68E-08	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	1.40E+02	0.00E+00	6.06E-01	0.00E+00
PENRM	MJ	1.21E+01	0.00E+00	1.21E+01	0.00E+00
PENRE	MJ	3.46E-02	0.00E+00	9.45E-06	0.00E+00
PERT	MJ	3.97E+02	0.00E+00	6.94E-03	0.00E+00
PERM	MJ	3.93E+02	0.00E+00	1.95E-03	0.00E+00
PERE	MJ	4.18E+00	0.00E+00	5.00E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	2.05E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	2.40E+00	0.00E+00	1.02E+00	0.00E+00
RWD	kg	3.58E-04	0.00E+00	3.86E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	8.21E+00	0.00E+00	1.44E-01	0.00E+00

ENVIRONMENTAL PERFORMANCE

SYNUIL WATER-BASED SATINED ENAMEL

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	7.87E+00	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	7.79E+00	0.00E+00	5.77E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	5.31E-02	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	2.80E-02	0.00E+00	1.08E-05	0.00E+00
ODP	kg CFC11 eq	3.93E-06	0.00E+00	8.48E-09	0.00E+00
IRP	kBq U-235 eq	6.67E-01	0.00E+00	2.85E-03	0.00E+00
POCP	kg NMVOC eq	3.61E-02	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	4.74E-07	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	3.69E-02	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	2.61E-03	0.00E+00	5.59E-06	0.00E+00
EP, marine	kg N eq	9.12E-03	0.00E+00	4.80E-04	0.00E+00
EP, terrestrial	mol N eq	8.63E-02	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	1.80E+02	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	1.22E+01	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	4.24E+01	0.00E+00	1.31E-01	0.00E+00
> ETP, freshwater – metals	CTUe	1.25E+02	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	2.14E+03	0.00E+00	5.98E-01	0.00E+00
WDP	m ³ depriv.	3.00E+00	0.00E+00	8.04E-03	0.00E+00
RUP, fossils	MJ	1.19E+02	0.00E+00	5.68E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	3.45E-05	0.00E+00	1.12E-07	0.00E+00
HTP, non-cancer	CTUh	2.26E-07	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	5.93E-09	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	1.53E-07	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	6.80E-08	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	3.66E-08	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	1.01E-08	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	2.65E-08	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	1.27E+02	0.00E+00	6.04E-01	0.00E+00
PENRM	MJ	1.12E+01	0.00E+00	1.12E+01	0.00E+00
PENRE	MJ	3.46E-02	0.00E+00	9.41E-06	0.00E+00
PERT	MJ	3.97E+02	0.00E+00	6.91E-03	0.00E+00
PERM	MJ	3.93E+02	0.00E+00	1.94E-03	0.00E+00
PERE	MJ	3.96E+00	0.00E+00	4.98E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	2.02E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	2.29E+00	0.00E+00	1.01E+00	0.00E+00
RWD	kg	3.46E-04	0.00E+00	3.84E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	7.55E+00	0.00E+00	1.44E-01	0.00E+00

ENVIRONMENTAL PERFORMANCE

SYNUIL WATER-BASED MATT ENAMEL

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	7.67E+00	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	7.59E+00	0.00E+00	5.78E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	5.08E-02	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	2.80E-02	0.00E+00	1.08E-05	0.00E+00
ODP	kg CFC11 eq	8.32E-06	0.00E+00	8.51E-09	0.00E+00
IRP	kBq U-235 eq	6.57E-01	0.00E+00	2.86E-03	0.00E+00
POCP	kg NMVOC eq	3.54E-02	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	4.59E-07	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	3.59E-02	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	2.56E-03	0.00E+00	5.60E-06	0.00E+00
EP, marine	kg N eq	8.81E-03	0.00E+00	4.81E-04	0.00E+00
EP, terrestrial	mol N eq	8.44E-02	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	2.03E+02	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	7.09E+00	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	3.62E+01	0.00E+00	1.32E-01	0.00E+00
> ETP, freshwater – metals	CTUe	1.60E+02	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	2.14E+03	0.00E+00	6.00E-01	0.00E+00
WDP	m ³ depriv.	2.99E+00	0.00E+00	8.07E-03	0.00E+00
RUP, fossils	MJ	1.14E+02	0.00E+00	5.70E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	3.29E-05	0.00E+00	1.13E-07	0.00E+00
HTP, non-cancer	CTUh	2.15E-07	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	4.42E-09	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	1.32E-07	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	7.89E-08	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	3.41E-08	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	7.75E-09	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	2.64E-08	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	1.22E+02	0.00E+00	6.05E-01	0.00E+00
PENRM	MJ	1.09E+01	0.00E+00	1.08E+01	0.00E+00
PENRE	MJ	3.46E-02	0.00E+00	9.43E-06	0.00E+00
PERT	MJ	3.97E+02	0.00E+00	6.93E-03	0.00E+00
PERM	MJ	3.93E+02	0.00E+00	1.94E-03	0.00E+00
PERE	MJ	3.90E+00	0.00E+00	4.99E-03	0.00E+00
ODP	kg CFC11 eq	8.32E-06	0.00E+00	8.51E-09	0.00E+00
WDP	m³	2.99E+00	0.00E+00	3.02E+00	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	1.99E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	2.31E+00	0.00E+00	1.01E+00	0.00E+00
RWD	kg	3.41E-04	0.00E+00	3.85E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	7.36E+00	0.00E+00	1.44E-01	0.00E+00



SYNUIL TOP+ PRIMER

Synuil Synuil Top+ Primer is a water-based polyurethane alkyd primer, particularly suitable for difficult substrates.

Its high anticorrosive power and excellent adhesion to the substrate make it ideal for indoor and outdoor protection of suitably treated iron, galvanised sheet metal, aluminium, PVC, glass and wood substrate.

COMPLIANT WITH THE HACCP STANDARD

The product is suitable for use in environments where foodstuffs are present according to UNI 11021:2002. Ideal for high traffic areas where maximum hygiene is required.

- HIGH ADHERENCE
- ANTICORROSIVE
- IDEAL FOR DIFFICULT SUBSTRATES



CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.75 L	5.85E-03	1.51E-01	2.34E-03	4.28E-01	8.77E-02
2.5 L	4.21E-03	1.14E-01	7.02E-04	4.28E+00	5.26E-02

SYNUIL TOP+ PRIMER	
Water	< 30
Loads	< 20
Emulsions	< 60
Additives	< 10

ENVIRONMENTAL DECLARATION PROCESS

DECLARED UNIT:

For this EPD, in accordance with the reference standards, the concept of “declared unit” is used instead of “functional unit”.

The declared unit is the quantity of product required to produce 1 kg of finished product.

REFERENCE YEAR:

The data used refer to the calendar year 2020. Study carried out in 2021.

SYSTEM BOUNDARIES:

This EPD is of the “cradle to gate with options” type and includes forms A1 (Raw Materials), A2 (Transport), A3 (Production), C1 (Total/Partial Demolition), C2 (Transport to Landfill/Recovery Centre), C3 (Recovery/Reuse Process), C4 (Landfill) and D (Recovery/Reuse Potential).



	 PRODUCTION PHASE			 DISTRIBUTIONE & INSTALLATION PHASE		 USE AND MAINTENANCE PHASE							 END-OF-LIFE & DISPOSAL PHASE				 REUSE & RECYCLING PHASE
	Raw Materials	Transport	Production	Transport	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Energy use	Water use	Demolition (total / partial)	Transport (landfill / recovery centre)	Recovery / reuse	Landfill	Recovery / reuse potential
Forms	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declaration forms	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variables	Less than +10% for each product group					-	-	-	-	-	-	-	-	-	-	-	-
Site variations	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

SYNUIL TOP+ PRIMER

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	3.10E+03	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	3.06E+03	0.00E+00	5.73E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	3.69E+01	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	1.66E+00	0.00E+00	1.07E-05	0.00E+00
ODP	kg CFC11 eq	3.89E-04	0.00E+00	8.37E-09	0.00E+00
IRP	kBq U-235 eq	1.52E+02	0.00E+00	2.82E-03	0.00E+00
POCP	kg NMVOC eq	1.21E+01	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	2.32E-04	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	1.63E+01	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	8.67E-01	0.00E+00	5.56E-06	0.00E+00
EP, marine	kg N eq	4.71E+00	0.00E+00	4.80E-04	0.00E+00
EP, terrestrial	mol N eq	3.25E+01	0.00E+00	5.21E-03	0.00E+00
ETP, freshwater	CTUe	2.33E+05	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	6.52E+04	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	1.16E+05	0.00E+00	1.30E-01	0.00E+00
> ETP, freshwater – metals	CTUe	5.18E+04	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	8.40E+03	0.00E+00	5.89E-01	0.00E+00
WDP	m ³ depriv.	2.52E+03	0.00E+00	7.91E-03	0.00E+00
RUP, fossils	MJ	5.69E+04	0.00E+00	5.61E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	3.19E-02	0.00E+00	1.11E-07	0.00E+00
HTP, non-cancer	CTUh	3.09E-04	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	1.65E-05	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	2.68E-04	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	2.50E-05	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	3.21E-05	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	3.07E-05	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	1.34E-06	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	6.10E+04	0.00E+00	5.96E-01	0.00E+00
PENRM	MJ	5.01E+03	0.00E+00	5.01E+03	0.00E+00
PENRE	MJ	4.22E-01	0.00E+00	9.30E-06	0.00E+00
PERT	MJ	3.15E+03	0.00E+00	6.83E-03	0.00E+00
PERM	MJ	1.78E+03	0.00E+00	1.91E-03	0.00E+00
PERE	MJ	1.37E+03	0.00E+00	4.92E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	4.09E-02	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	2.46E+02	0.00E+00	9.91E-01	0.00E+00
RWD	kg	7.26E-02	0.00E+00	3.79E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	2.94E+03	0.00E+00	1.44E-01	0.00E+00



- EASY APPLICATION
- HIGH ADHESION
- RAPID DRYING

PREPARFERRO

Preparferro is a water-based acrylic rust primer with high anti-corrosive power, formulated with specific pigments with a barrier effect against iron rust and corrosion, for indoor and outdoor use.

Specifically designed as an anti-rust PRIMER on iron, thanks to its high adhesion, it can also be used with excellent results on galvanised sheet metal and aluminium.

COMPLIANT WITH THE HACCP STANDARD

The product is suitable for use in environments where foodstuffs are present according to UNI 11021:2002. Ideal for high traffic areas where maximum hygiene is required.



CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.5 L	2.12E-02	2.02E-01	3.54E-03	1.77E-02	1.33E-01
2.5 L	4.25E-03	1.15E-01	7.08E-04	8.85E-03	5.31E-02

PREPARFERRO	
Water	< 30
Loads	< 20
Emulsions	< 60
Additives	< 10

ENVIRONMENTAL DECLARATION PROCESS

DECLARED UNIT:

For this EPD, in accordance with the reference standards, the concept of “declared unit” is used instead of “functional unit”.

The declared unit is the quantity of product required to produce 1 kg of finished product.

REFERENCE YEAR:

The data used refer to the calendar year 2020. Study carried out in 2021.

SYSTEM BOUNDARIES:

This EPD is of the “cradle to gate with options” type and includes forms A1 (Raw Materials), A2 (Transport), A3 (Production), C1 (Total/Partial Demolition), C2 (Transport to Landfill/Recovery Centre), C3 (Recovery/Reuse Process), C4 (Landfill) and D (Recovery/Reuse Potential).



	 PRODUCTION PHASE			 DISTRIBUTIONE & INSTALLATION PHASE		 USE AND MAINTENANCE PHASE							 END-OF-LIFE & DISPOSAL PHASE				 REUSE & RECYCLING PHASE
	Raw Materials	Transport	Production	Transport	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Energy use	Water use	Demolition (total / partial)	Transport (landfill / recovery centre)	Recovery / reuse	Landfill	Recovery / reuse potential
Forms	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declaration forms	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variables	Less than +10% for each product group					-	-	-	-	-	-	-	-	-	-	-	-
Site variations	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

PREPARFERRO

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	1.31E+01	0.00E+00	9.68E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	1.30E+01	0.00E+00	5.77E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	7.14E-02	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	3.16E-02	0.00E+00	1.08E-05	0.00E+00
ODP	kg CFC11 eq	5.01E-06	0.00E+00	8.50E-09	0.00E+00
IRP	kBq U-235 eq	1.09E+00	0.00E+00	2.86E-03	0.00E+00
POCP	kg NMVOC eq	4.91E-02	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	6.31E-07	0.00E+00	2.74E-08	0.00E+00
AP	mol H ⁺ eq	5.78E-02	0.00E+00	1.01E-03	0.00E+00
EP, freshwater	kg P eq	4.26E-03	0.00E+00	5.60E-06	0.00E+00
EP, marine	kg N eq	2.16E-02	0.00E+00	4.81E-04	0.00E+00
EP, terrestrial	mol N eq	1.41E-01	0.00E+00	5.22E-03	0.00E+00
ETP, freshwater	CTUe	2.95E+02	0.00E+00	3.12E+00	0.00E+00
> ETP, freshwater – organics	CTUe	7.48E+00	0.00E+00	3.99E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	6.04E+01	0.00E+00	1.32E-01	0.00E+00
> ETP, freshwater – metals	CTUe	2.27E+02	0.00E+00	2.59E+00	0.00E+00
LUP	Pt	2.16E+03	0.00E+00	5.99E-01	0.00E+00
WDP	m ³ depriv.	5.88E+00	0.00E+00	8.06E-03	0.00E+00
RUP, fossils	MJ	1.96E+02	0.00E+00	5.69E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	9.46E-05	0.00E+00	1.12E-07	0.00E+00
HTP, non-cancer	CTUh	3.38E-07	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	6.91E-09	0.00E+00	1.01E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	8.90E-08	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	2.44E-07	0.00E+00	1.42E-08	0.00E+00
HTP, cancer	CTUh	4.37E-08	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	8.81E-09	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	3.49E-08	0.00E+00	1.46E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	2.10E+02	0.00E+00	6.04E-01	0.00E+00
PENRM	MJ	1.79E+01	0.00E+00	1.79E+01	0.00E+00
PENRE	MJ	3.54E-02	0.00E+00	9.43E-06	0.00E+00
PERT	MJ	4.01E+02	0.00E+00	6.92E-03	0.00E+00
PERM	MJ	3.94E+02	0.00E+00	1.94E-03	0.00E+00
PERE	MJ	6.94E+00	0.00E+00	4.98E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	2.96E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	4.01E+00	0.00E+00	1.01E+00	0.00E+00
RWD	kg	5.29E-04	0.00E+00	3.85E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	1.27E+01	0.00E+00	1.44E-01	0.00E+00



PREPARLEGNO

Preparlegno is the water-based PRIMER paint specifically for Wood surfaces. Formulated with special tannin-inhibiting pigments, it is a PRIMER characterized by high protective power. It is ideal for preparing the substrate for any type of enamel finish. The ODOURLESS formula makes the product particularly suitable for use indoors.

COMPLIANT WITH THE HACCP STANDARD

The product is suitable for use in environments where foodstuffs are present according to UNI 11021:2002. Ideal for high traffic areas where maximum hygiene is required.

- ODOURLESS
- ANTI-TANNIN
- EXCELLENT FILLING POWER



CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	PP [kg/kg]	Iron [kg/kg]	Paper [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
0.5 L	2.12E-02	2.02E-01	3.54E-03	1.95E-02	1.33E-01
2.5 L	4.25E-03	1.15E-01	7.08E-04	9.91E-03	5.31E-02

PREPARLEGNO	
Water	< 20
Loads	< 50
Emulsions	< 40
Additives	< 10

ENVIRONMENTAL DECLARATION PROCESS

DECLARED UNIT:

For this EPD, in accordance with the reference standards, the concept of “declared unit” is used instead of “functional unit”.

The declared unit is the quantity of product required to produce 1 kg of finished product.

REFERENCE YEAR:

The data used refer to the calendar year 2020. Study carried out in 2021.

SYSTEM BOUNDARIES:

This EPD is of the “cradle to gate with options” type and includes forms A1 (Raw Materials), A2 (Transport), A3 (Production), C1 (Total/Partial Demolition), C2 (Transport to Landfill/Recovery Centre), C3 (Recovery/Reuse Process), C4 (Landfill) and D (Recovery/Reuse Potential).



	 PRODUCTION PHASE			 DISTRIBUTIONE & INSTALLATION PHASE		 USE AND MAINTENANCE PHASE							 END-OF-LIFE & DISPOSAL PHASE				 REUSE & RECYCLING PHASE
	Raw Materials	Transport	Production	Transport	Installation	Use	Maintenance	Repairs	Replacement	Renovation	Energy use	Water use	Demolition (total / partial)	Transport (landfill / recovery centre)	Recovery / reuse	Landfill	Recovery / reuse potential
Forms	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Declaration forms	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data	>90%					-	-	-	-	-	-	-	-	-	-	-	-
Variables	Less than +10% for each product group					-	-	-	-	-	-	-	-	-	-	-	-
Site variations	Not relevant					-	-	-	-	-	-	-	-	-	-	-	-

ENVIRONMENTAL PERFORMANCE

PREPARLEGNO

ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 – A3	C1	C2 – C4	D
GWP	kg CO ₂ eq	5.46E+00	0.00E+00	9.62E-01	0.00E+00
> GWP – Fossil	kg CO ₂ eq	5.40E+00	0.00E+00	5.18E-02	0.00E+00
> GWP – Biogenic	kg CO ₂ eq	2.46E-02	0.00E+00	9.10E-01	0.00E+00
> GWP – Land use and LU change	kg CO ₂ eq	2.73E-02	0.00E+00	8.93E-06	0.00E+00
ODP	kg CFC11 eq	6.58E-07	0.00E+00	6.80E-09	0.00E+00
IRP	kBq U-235 eq	5.73E-01	0.00E+00	2.30E-03	0.00E+00
POCP	kg NMVOC eq	2.81E-02	0.00E+00	2.43E-03	0.00E+00
PM	disease inc.	3.54E-07	0.00E+00	2.68E-08	0.00E+00
AP	mol H ⁺ eq	2.59E-02	0.00E+00	9.76E-04	0.00E+00
EP, freshwater	kg P eq	2.09E-03	0.00E+00	5.15E-06	0.00E+00
EP, marine	kg N eq	6.92E-03	0.00E+00	4.70E-04	0.00E+00
EP, terrestrial	mol N eq	6.68E-02	0.00E+00	5.10E-03	0.00E+00
ETP, freshwater	CTUe	1.14E+02	0.00E+00	3.04E+00	0.00E+00
> ETP, freshwater – organics	CTUe	5.19E+00	0.00E+00	3.93E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	1.92E+01	0.00E+00	1.10E-01	0.00E+00
> ETP, freshwater – metals	CTUe	8.98E+01	0.00E+00	2.54E+00	0.00E+00
LUP	Pt	2.14E+03	0.00E+00	4.50E-01	0.00E+00
WDP	m ³ depriv.	1.00E+01	0.00E+00	5.63E-03	0.00E+00
RUP, fossils	MJ	7.69E+01	0.00E+00	4.56E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	2.92E-05	0.00E+00	9.33E-08	0.00E+00
HTP, non-cancer	CTUh	1.39E-07	0.00E+00	3.80E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	5.42E-09	0.00E+00	1.00E-09	0.00E+00
> HTP, non-cancer – inorganics	CTUh	7.71E-08	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer – metals	CTUh	5.76E-08	0.00E+00	1.41E-08	0.00E+00
HTP, cancer	CTUh	3.21E-08	0.00E+00	6.97E-09	0.00E+00
> HTP, cancer – organics	CTUh	7.10E-09	0.00E+00	6.83E-09	0.00E+00
> HTP, cancer – inorganics	CTUh	0.00E+00	0.00E+00	0.00E+00	0.00E+00
> HTP, cancer – metals	CTUh	2.50E-08	0.00E+00	1.45E-10	0.00E+00

RESOURCE CONSUMPTION

* The results in kg PO4 eq. can be obtained by multiplying the results in kg P eq. by a conversion factor of 3.07.

Impact category	Unit	A1-A3	C1	C2-C4	D
PENRT	MJ	8.18E+01	0.00E+00	4.84E-01	0.00E+00
PENRM	MJ	8.45E+00	0.00E+00	8.45E+00	0.00E+00
PENRE	MJ	3.44E-02	0.00E+00	7.86E-06	0.00E+00
PERT	MJ	3.96E+02	0.00E+00	5.66E-03	0.00E+00
PERM	MJ	3.92E+02	0.00E+00	1.58E-03	0.00E+00
PERE	MJ	3.32E+00	0.00E+00	4.08E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m³	0.00E+00	0.00E+00	2.45E-02	0.00E+00

WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	1.88E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	1.92E+00	0.00E+00	6.67E-01	0.00E+00
RWD	kg	3.01E-04	0.00E+00	3.08E-06	0.00E+00
CRU	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	kg	0.00E+00	0.00E+00	1.87E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	5.88E-01	0.00E+00
EE	MJ per energy carrier	0.00E+00	0.00E+00	0.00E+00	0.00E+00

IPCC INDICATOR

Impact category	Unit	A1-A3	C1	C2 - C4	D
GWP-GHG	kg CO ₂ eq	5.27E+00	0.00E+00	1.38E-01	0.00E+00

ADDITIONAL INFORMATION

GREEN PUBLIC PROCUREMENT (GPP)

Minimum Environmental Criteria (MEC) for Constructions. Minimum Environmental Criteria (MEC) are issued by the Ministry of the Environment and concern specific purchase categories. They provide “environmental considerations”, linked to the different phases of tender procedures (subject of the contract, technical specifications, rewarding technical characteristics linked to the most economically advantageous tender, contract execution conditions) aimed at qualifying, from an environmental point of view, both supplies and procurements throughout the entire life cycle of the service/product.

THE PAINT PRODUCT COMPLIES WITH THE MEC BUILDING REGULATIONS IF IT MEETS THE TECHNICAL SPECIFICATIONS

1. EMISSION LIMITS

The manufacturer of Paints and Varnishes **must present documentation proving compliance with the emission limits indicated in the table**, verified by measuring the emissions of its products.

This documentation will consist, for example, of a test report carried out by a third-party laboratory or, if the company has suitable instrumentation, in-house laboratory tests.

2.3 3 Technical specifications of the building*

2.3.5.5 Material emission*

EMISSION LIMIT (µm³)	
Benzene Trichloroethylene (trichloroethylene) di-2-ethylhexylphthalate (DEHP) Dibutyl phthalate (DBP)	1 (for each substance)
Total VOCs (22)	1500
Formaldehyde	<60
Acetaldehyde	<300
Toluene	<450
Tetrachloroethylene	<350
Xylene	<300
1,2,4-Trimethylbenzene	<1500
1,4-dichlorobenzene	<90
Ethylbenzene	<1000
2-Butoxyethanol	<1500
Styrene	<350

2. HAZARDOUS SUBSTANCES

The manufacturer of paints and varnishes **must submit a declaration of conformity of the legal representative, accompanied by the Safety Data Sheet (SDS)** of the product. In the event of substances with such classifications not appearing in the SDS, the SDS itself is sufficient documentation to demonstrate compliance with the specific criterion.

2.4.1.3 Hazardous substances*

None of the following must be added intentionally to the components, parts or materials used:

- Cadmium, lead, chromium VI, mercury, arsenic and selenium additives in concentrations exceeding 0.010% by weight.
- Substances identified as “Substances of Very High Concern” (SVHCs) according to Article 59 of Regulation (EC) No 1907/2006 at a concentration greater than 0.10% w/w;
- Substances or mixtures classified or classifiable with the following hazard statements:
 - as carcinogenic, mutagenic or toxic for reproduction in category 1A, 1B or 2 (H340, H350, H350i, H360, H360F, H360D, H360FD, H360Fd, H360Df, H341, H351, H361f, H361d, H361fd, H362);
 - for acute oral, dermal, inhalation toxicity in category 1, 2 or 3 (H300, H301, H310, H311, H330, H331);
 - as dangerous to the aquatic environment in category 1, 2 (H400, H410, H411);
 - as having specific target organ toxicity category 1 and 2 (H370, H371, H372, H373).

3. POSSESSION OF THE ECOLABEL OR EQUIVALENT

The manufacturer of Paints and Varnishes **must present documentation declaring possession of the Ecolabel or an equivalent label**. Alternatively, it may present a type III environmental declaration (i.e. an EPD – Environmental Product Declaration).

2.4 Technical specifications of building components*

2.4.2 Specific criteria for building components*

2.4.2.11 Paints and Varnishes*

Paint products must comply with the ecological and performance criteria of Decision 2014/312/EU2 as amended, on the awarding of the EU Ecolabel for paint products.

Verification: the designer shall prescribe that in the procurement phase the contractor shall ensure compliance with the criterion by using products bearing either:

- the EU Ecolabel or equivalent;
- a Type III environmental declaration in accordance with EN 15804 and ISO 14025

demonstrating compliance with this criterion. This can be verified if the environmental declaration contains the specific information related to the criteria contained in the above-mentioned decisions. Evidence of compliance with this criterion must be submitted to the contracting authority during the execution of the works, in the manner specified in the relevant specifications.

ACRONYMS

ENVIRONMENTAL IMPACT

ADP: abiotic resource depletion potential;
AP: acidification potential;
EP: eutrophication potential;
GWP: global warming potential;
ODP: stratospheric ozone depletion potential;
POCP: tropospheric ozone creation potential;
WDP: water deprivation potential.

RESOURCE CONSUMPTION

PERT: total use of renewable primary energy resources;
PERM: use of renewable primary energy resources used as raw materials;
PERE: use of renewable primary energy excluding renewable primary energy used as raw materials;
PENRT: total use of non-renewable primary energy resources;
PENRM: use of non-renewable primary energy resources used as raw materials;
PENRE: use of non-renewable primary energy excluding non-renewable primary energy used as raw materials;
SM: use of secondary material;
RSF: use of renewable secondary fuels;
NRSF: use of non-renewable secondary fuels;
FWT: total use of water.

WASTE PRODUCTION

HWD: hazardous waste disposed of;
NHWD: non-hazardous waste disposed of;
RWD: radioactive waste disposed of;
CRU: components for reuse;
MFR: materials for recycling;
MER: materials for energy recovery;
EE: exported energy;
IRP: ionising radiation;
PM: particulate matter;
HTP: human toxicity;
ETP: ecotoxicity potential;
LUP: land use potential;
RUP: resource use potential.

ADDITIONAL INFORMATION

VERIFICATION AND REGISTRATION

ISO standard ISO 21930 and CEN standard EN 15804 serves as the core Product Category Rules (PCR)

Product Category Rules (PCR):

PCR 2019:14 Construction products, version 1.11

(PCR) review was conducted by: The Technical Committee of the International EPD® System.

See www.environdec.com/TC for a list of members. Review chair: Claudia A. Peña, University of Concepción, Chile.

The review panel may be contacted via the Secretariat www.environdec.com/contact

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

☒ External ☐ Internal

covering

☒ EPD process certification ☐ EPD verification

Third-party verifier:

Guido Croce

Procedure for follow-up during EPD validity involves third party verifier.

☐ Yes ☒ No

The holder of the EPD has ownership and responsibility for the declaration.

CPC CODE: 3511 paints, varnishes and related products

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