# **BALDINI VERNICI**

ENVIRONMENTAL PRODUCT DECLARATION

# FISSATIO ECOLABEL WATER-BASED ACRYLIC-RESIN FIXATIVE

Registration: S-P-05945 Publication date: 2022/07/25 Valid until: 2027/07/25 Programme: The International EPD® System www.environdec.com Programme Operator: EPD International AB

BALDINI VERNIC

A BASE DI RESINE

OTTIMO POTERE /

A+

FISSATIVC



This EPD has been developed in compliance with ISO 14025:2010 and EN 15804:2012+A2:2019

## CLOWOLOGA

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/\in**. 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.









sites

by new products







hubs





## 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

**ENVIRONMENTAL** RESPONSIBILITY To minimise the impact of activities on the environment.

## SAFETY AND PRODUCT LIABILITY Innovation for offering colours and paints that are increasingly more respectful of the environment and health of users.

## SOCIAL RESPONSIBILITY

To ensure the health and safety for its employees; enabling everyone to evolve; fostering the highest standard of integrity and compliance with the regulations in force.

## **PRODUCT SAFETY** AND LIABILITY





HYGIENE-HEALTHCARE PREVENTION PROTOCOL

INDOOR AIR QUALITY



FILM PROTECTION TECHNOLOGY UNIEN 15457



**UNI EN 15458** ANTI-ALGAE EFFICACY

ANTI-MOULD EFFICACY

**UNI EN 15457** 



ISO 22196 BACTERIOSTATIC CERTIFICATE SILVER ACT TECHNOLOGY

#### **ENVIRONMENTAL** RESPONSIBILITY



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Ecolabel

ISO 14001:2015 ENVIRONMENTAL PROTECTION IN INDUSTRIAL PRODUCTION PROCESSES

ENVIRONMENTAL PRODUCT EPD DECLARATION

ECOLABEL

100% GREEN ENERGY CERTIFICATION

## SOCIAL RESPONSIBILITY



ISO 45001:2018 OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM

DLGS 231/2001 CORPORATE ADMINISTRATIVE LIABILITY

CSR





## **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-05945
EXPIRY DATE	25/07/2027
PUBLICATION DATE	25/07/2022
PRODUCT DESCRIPTION	Fissativo Ecolabel, Water-based acrylic-resin fixative
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.

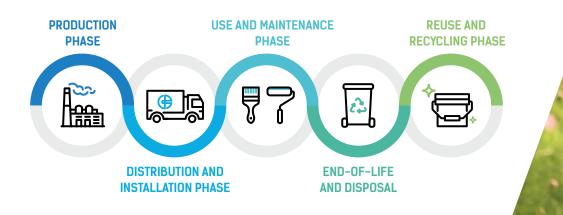


The abbreviation EPD stands for **Environmental Product Declaration** and is a document in which the environmental performance of a product is described in the form of standardised and objective data. It makes it possible to analyse and quantify how much energy and natural resources are used by production and distribution processes, how much  $CO_2$  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 FISSATIVO ECOLABEL Water-based acrylic-resin fixative.



BALDINI VERNICI

#### **ENVIRONMENTAL DECLARATION**

## 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.

FILM PROTECTION TECHNOLOGY

UNI EN 15457

SILVER ACT

TECHNOLOGY

ISO 22196

SILVER ACT TECNOLOGY



A+ CERTIFICATE



ANTI-MOULD EFFICACY







ANTI-MOULD EFFICACY







THE BALDINI VERNICI BRAND









## > FASTER DRYING

EXCELLENT ANCHORING POWER

## > HIGH UNIFORMITY

## BALDINI VERNIC



## **FISSATIVO ECOLABEL**

This Environmental Product Declaration (EPD) refers to the Fissativo Ecolabel waterbased acrylic-resin fixative.

#### 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.





## **BALDINI VERNICI**

### **FISSATIVO ECOLABEL**

CHEMICAL COMPOSITION OF THE PRODUCT



Packaging Volume	<b>PP</b> [kg/kg]	PE [kg/kg]	<b>Steel</b> [kg/kg]	Paper [kg/kg]	Cardboard [kg/kg]	LDPE [kg/kg]	Wood [kg/kg]
1L	6.90E-03	5.71E-02	0.00E+00	1.97E-03	2.96E-02	9.85E-04	7.39E-02
16 L	4.58E-02	0.00E+00	3.63E-03	1.23E-04	0.00E+00	8.62E-04	7.00E-02
5 L	5.83E-02	0.00E+00	0.00E+00	3.94E-04	0.00E+00	9.85E-04	9.85E-02

FISSATIVO ECOLABEL						
Water	< 60					
Loads	< 5					
Emulsions	< 50					



FISSATIVO ECOLABEL

## **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).

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BALDINI VERNIC PRODUCTION PHASE				UTIONE & Ion Phase		USE A	ND MA	INTEN	ANCE	PHASE			ND-OF- SPOSAL			REUSE & Recycling Phase	
FISSATIVO ECOLABEL - Marine Herewe car car a series - Marine Herewe car car a series - Marine Herewe ca	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	Al	A2	A3	A4	A5	B1	B2	B3	B4	B5	Bó	B7	Cl	C2	C3	C4	D
Declaration forms	Х	Х	Х	Х	ND	ND	ND	ND	ND	ND	ND	ND	Х	Х	Х	X	Х
Geography	EU	I	I	-	-	-	-	-	-	-	-	-	EU	EU	EU	EU	EU
Specific data				>90%		-	-	-	-	-	_	-	-	-	-	-	_
Variables		f		than +10% product group	)	-	-	-	-	-	-	-	-	-	-	-	_
Site variations			No	t relevant		-	-	-	-	-	-	-	-	-	-	-	-

## **ENVIRONMENTAL PERFORMANCE**

## **FISSATIVO ECOLABEL**

## ENVIRONMENTAL CALCULATION SIMULATION

EN15804 + A2 INDICATORS					
Impact category	Unit	A1 - A3	C1	C2 - C4	D
GWP	kg CO <sub>2</sub> eq	4.72E+00	0.00E+00	1.19E+00	0.00E+00
> GWP – Fossil	kg CO <sub>2</sub> eq	4.69E+00	0.00E+00	1.61E-01	0.00E+00
> GWP – Biogenic	kg CO <sub>2</sub> eq	3.80E-03	0.00E+00	1.03E+00	0.00E+00
> GWP – Land use and LU change	kg CO <sub>2</sub> eq	2.69E-02	0.00E+00	9.43E-06	0.00E+00
ODP	kg CFC11 eq	5.32E-07	0.00E+00	6.33E-09	0.00E+00
IRP	kBq U-235 eq	4.81E-01	0.00E+00	2.17E-03	0.00E+00
РОСР	kg NMVOC eq	2.62E-02	0.00E+00	2.46E-03	0.00E+00
PM	disease inc.	3.18E-07	0.00E+00	2.68E-08	0.00E+00
AP	mol H+ eq	2.24E-02	0.00E+00	1.00E-03	0.00E+00
EP, freshwater	kg P eq	1.79E-03	0.00E+00	1.09E-05	0.00E+00
EP, marine	kg N eq	6.20E-03	0.00E+00	5.44E-04	0.00E+00
EP, terrestrial	mol N eq	6.03E-02	0.00E+00	5.23E-03	0.00E+00
ETP, freshwater	CTUe	8.86E+01	0.00E+00	3.41E+00	0.00E+00
> ETP, freshwater – organics	CTUe	3.62E+00	0.00E+00	3.90E-01	0.00E+00
> ETP, freshwater – inorganics	CTUe	1.03E+01	0.00E+00	4.00E-01	0.00E+00
> ETP, freshwater – metals	CTUe	7.46E+01	0.00E+00	2.62E+00	0.00E+00
LUP	Pt	2.14E+03	0.00E+00	3.28E-01	0.00E+00
WDP	m <sup>3</sup> depriv.	1.83E+00	0.00E+00	8.70E-03	0.00E+00
RUP, fossils	MJ	8.51E+01	0.00E+00	4.30E-01	0.00E+00
RUP, minerals and metals	kg Sb eq	2.70E-05	0.00E+00	1.01E-07	0.00E+00
HTP, non-cancer	CTUh	9.74E-08	0.00E+00	3.88E-08	0.00E+00
> HTP, non-cancer – organics	CTUh	2.93E-09	0.00E+00	1.04E-09	0.00E+00
> HTP, non-cancer - inorganics	CTUh	4.31E-08	0.00E+00	2.29E-08	0.00E+00
> HTP, non-cancer - metals	CTUh	5.20E-08	0.00E+00	1.49E-08	0.00E+00
HTP, cancer	CTUh	3.06E-08	0.00E+00	6.99E-09	0.00E+00
> HTP, cancer – organics	CTUh	6.46E-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	2.41E-08	0.00E+00	1.65E-10	0.00E+00

#### **ENVIRONMENTAL PERFORMANCE**

**FISSATIVO ECOLABEL** 

## 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	9.07E+01	0.00E+00	4.58E-01	0.00E+00
PENRM	MJ	7.52E+00	0.00E+00	7.51E+00	0.00E+00
PENRE	MJ	3.43E-02	0.00E+00	7.96E-06	0.00E+00
PERT	MJ	3.95E+02	0.00E+00	6.68E-03	0.00E+00
PERM	MJ	3.92E+02	0.00E+00	1.83E-03	0.00E+00
PERE	MJ	2.86E+00	0.00E+00	4.85E-03	0.00E+00
ODP	kg CFC11 eq	0.00E+00	0.00E+00	0.00E+00	0.00E+00
WDP	m <sup>3</sup>	0.00E+00	0.00E+00	2.45E-02	0.00E+00

## WASTE

Impact category	Unit	A1 - A3	C1	C2 - C4	D
HWD	kg	1.76E-04	0.00E+00	5.50E-03	0.00E+00
NWHD	kg	1.67E+00	0.00E+00	4.24E-02	0.00E+00
RWD	kg	2.48E-04	0.00E+00	2.76E-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	3.40E-01	0.00E+00
MER	kg	0.00E+00	0.00E+00	7.55E-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 <sub>2</sub> eq	4.58E+00	0.00E+00	2.42E-01	0.00E+00

## 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 (µm²)	
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.

## 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 Commitee 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

Indipendent third-party verification of the declaration and data, according to ISO 14025:2006:  $\boxtimes$  External  $\square$  Internal

covering

EPD process certification 🛛 EPD verification

Third-party verifer:

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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#### ADDITIONAL INFORMATION

# LDINI VERNICI @BALDINI VERNICI

**BALDINI VERNICI** 

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