2024 ENVIRONMENTAL PRODUCT DECLARATION

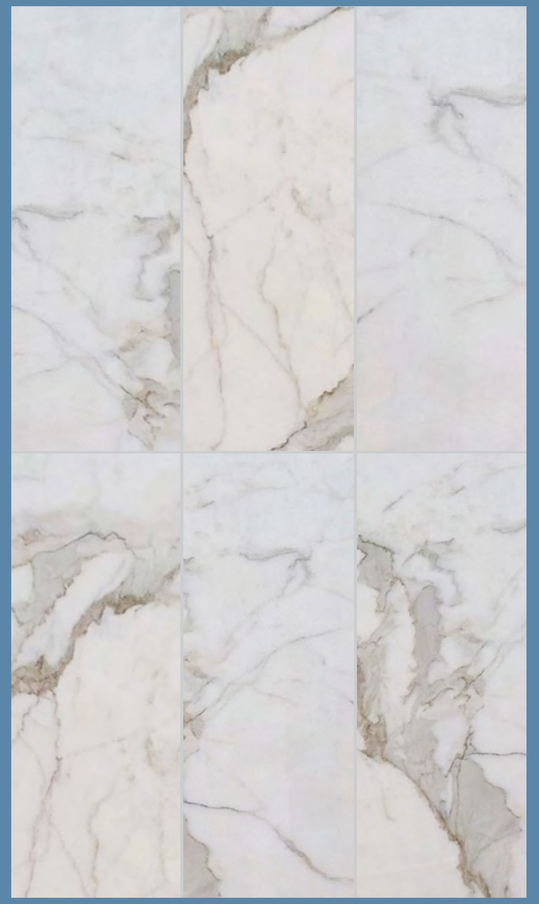
in accordance with ISO14025:2006
and EN15804:2012+A2:2019AC:2021

from ERREBI MARMI S.r.l.

for MARBLE TILES (1cm thickness)

Programme: the international EPD® System, www.environdec.com
Programme operator: EPD International AB
EPD registration number: S-P-11223
Pubblication date: 2023-11-24
Valid until: 2028-11-24

An EPD should provide current information
and may be updated if conditions change.
The stated validity is therefore subject
to the continued registration and publication
at www.environdec.com



Summary

General information

EPD PROGRAMME	The International EPD® System
ADDRESS	EPD International AB Box 210 60, SE-100 31 Stockholm, Sweden
WEBSITE	www.environdec.com
E-MAIL	info@environdec.com
PRODUCT CATEGORY RULES (PCR)	CEN standard EN 15804 serves as the Core Product Category Rules (PCR) Product Category Rules (PCR): Construction products; 2019:14 version 1.3.0; CPC 151: Monumental and building stone PCR review was conducted by: The Technical Committee of the International EPD® System. Review chair: Claudia A. Peña, University of Concepción, Chile. The review panel may be contacted via the Secretariat: www.environdec.com/contact.
LIFE CYCLE ASSESSMENT (LCA)	LCA accountability: S4 S.r.l.
THIRD-PARTY VERIFICATION	Independent third-party verification of the declaration and data, according to ISO 14025:2006, via: ✔ EPD verification by accredited certification body Third-party verification: DNV Business Assurance Italia S.r.l. is an approved certification body accountable for the third-party verification. The certification body is accredited by: ACCREDIA (Registration number 008H rev.01) Procedure for follow-up of data during EPD validity involves third party verifier: ✔ Yes ☐ No
EPD OWNER	The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

Company information

Description of the organisation

Owner of the EPD: Errebi Marmi S.r.l

Contact: Mr. Roberto Majello
E-mail: info@rbmarmi.it

Errebi Marmi S.r.l. is a young company born from the need to bring to the market the materials extracted by the Ferdinando Vanelli di Giorgio Vanelli S.r.l. Company.
This extraction activity has been carried out by the Vanelli family in quarry number 70 in the Bettogli area of Carrara for hundreds of years.

Product-related or management system-related certification: N.A.

Name and location of production site (s):
Errebi Marmi S.r.l.
Via Brigate Partigiane, 13
54033 Carrara (MS)

> Sculpture gives a soul to marble
> François René de Chateaubriand

Mission

Through the new company Errebi Marmi S.r.l. the range of materials will be expanded to satisfy all customer needs.

Today we are able to provide you with slabs, finished products and tiles coming from the marble we produce as well as from other materials from all over the world.

Upon request we are able to tackle the creation of projects in any format and material.

The open-air Bettogli "A" quarry offers different types of marble such as:

- Statuary marble
- Venated statuary
- Venatino
- Calacatta
- Bardiglio

The culture of marble

The quarry itself, thanks to the firm support of the Vanelli family, has equipped itself with an Integrated Management System to address and manage all aspects relating to the significant environmental factors present in the quarry and those relating to the safety and health of its workers. This will is formally expressed by the Company Policy document.

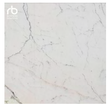
MARMOMAC 25|28 SEPT 2019 Verona Italy

FUORISALONE 2017
WHITE CARRARA DOWNTOWN 2018
ZEN GARDEN 2019
STAND MARMOMAC 2019

Bettogli "A" Our quarry


Venatino


Venated statuary


Statuary


Calacatta


Bardiglio

The known history of this quarry begins on 18 June 1818 when a contract was drawn up by the Notary Pietro Bernardo Pisani between Count Carlo Del Medico Staffetti and Michele and Gregorio Vanelli, which sanctioned, on the basis of the edict of Maria Teresa D'Este of 1 February 1751, the concession in perpetuity to Michele and Gregorio Vanelli and their descendants in the male line, of the right to excavate throughout the entire Monte Bettogli site.

In this way the quarry reached Vanelli Giorgio, who was able to purchase the concession rights and continue excavating according to the new Agri Marmiferi regulations of 2001.

The Bettogli “A” quarry, currently excavated by the company VF MARMI S.r.l., is located in the Bettogli area at no. 70 of the Cave Registry of the Municipality of Carrara, in the Torano basin. It is located at a height of approximately 500 meters above sea level, on the northern slope of Monte Bettogli.

The quarry is cultivated in an "open-air" manner with steps descending in a northerly direction. The processes are carried out using the latest generation machinery, such as chain cutters, diamond wire machines, wheel loaders and tracked excavators.

Venatino, Venated statuary, Statuary, Calacatta and Bardiglio marble is extracted.

1818
THE BIRTH OF THE QUARRY

2001
THE PURCHASE OF RIGHTS

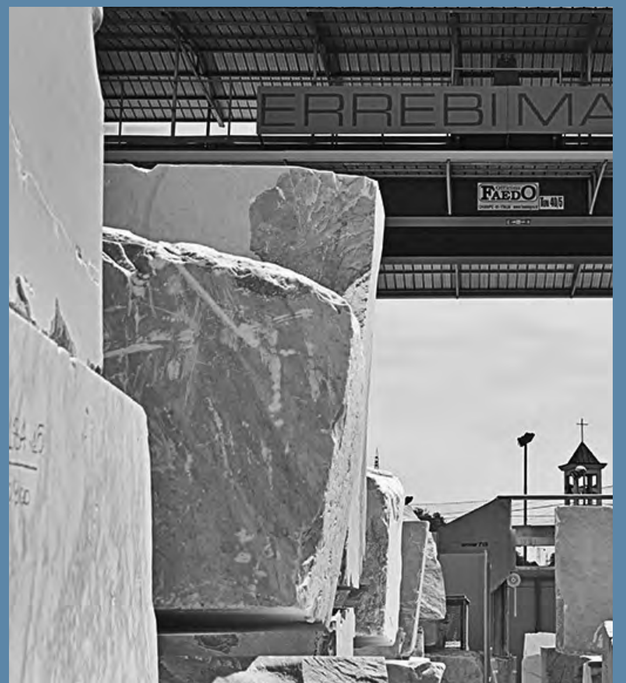
2020
OUR FUTURE

Warehouse & show-room

We will be happy to welcome you to our company, where you cannot help but appreciate the materials displayed in our warehouse and in our showroom.

Marble blocks

Errebi Marmi S.r.l. has excellent materials and advanced technologies which today allow for easy extraction of the blocks and storage in convenient yards where the materials can be viewed.



Marble slabs

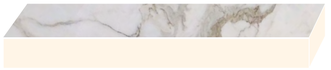
The slabs are processed in the most modern laboratories with high technology, they too, like the marble blocks, are displayed in comfortable squares and showrooms to be viewed and chosen.

Product information

Marble tiles 1cm tickness

Marble tiles 1cm thick, produced by Errebi Marmi S.r.l. with various width and length.

1 cm



PRODUCT DESCRIPTION

Marble is a calcareous natural stone with a density of 2.7 tons/m^3.
The products covered by the study are intended for indoor and outdoor flooring or cladding, for the construction of architectural works and building constructions.

UN CPC code:

151 Monumental and building stone

151 20 Marble and other calcareous monumental or building stone

GEOGRAPHICAL SCOPE:

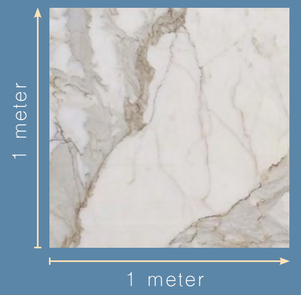
A1-A3	GLO/Italy
C1-C4 and D	GLO

LCA

LCA INFORMATION

Functional Unit/declared Unit:

1 square meter of tiles



Reference service life:

Product Reference Service Life
is dependent on product application.
Marble itself has an infinite lifetime.

Time representativeness:

The reference year of the study is
January 2022 - December 2022

Database(s) and LCA software used:

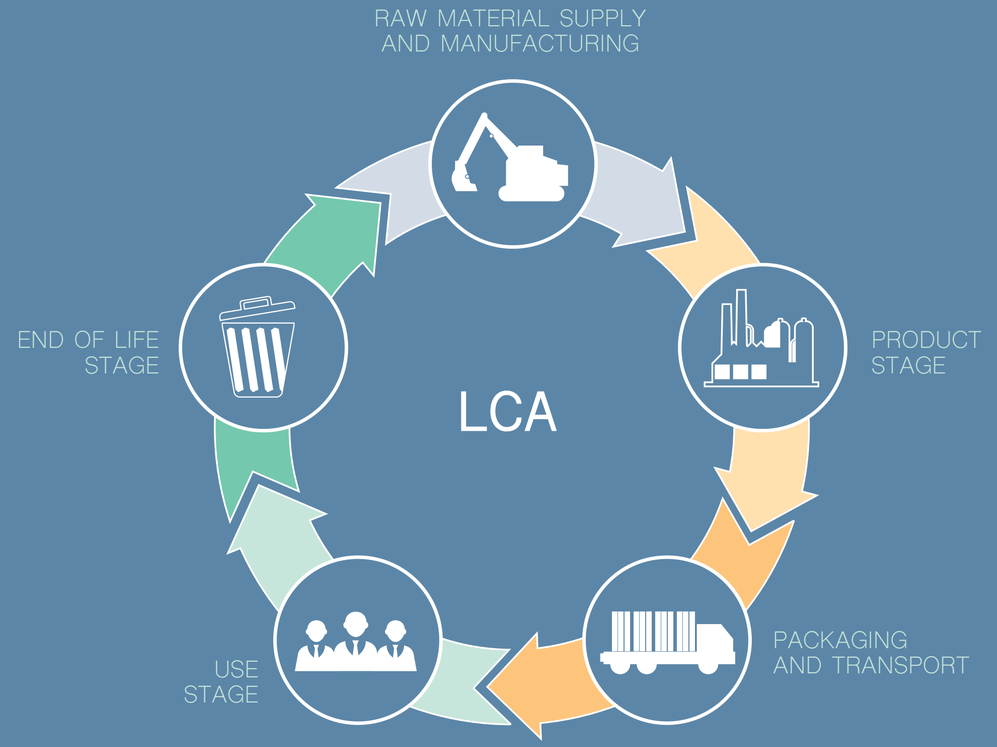
Ecoinvent 3.8 and OpenLCA 1.10.3

Description of system boundaries:

Cradle to gate with modules C1-C4 and
module D (A1-A3 + C+ D).

Electricity mix

Purchased electricity used in manufacturing
process of module A3 is modeled on the
2022 italian residual mix.
Its impacts is 0.782 kg CO2eq/kWh (GWP-GHG).



ERREBI
MARMI

System boundaries

Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

	PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END-OF-LIFE STAGE				RESOURCE RECOVERY STAGE
	Raw material supply	Transport	Manufacturing	Transport	Construction/Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Decostruction/Demolition	Transport	Waste processing	Disposal	Reuse/Recovery Recycling potential
MODULE	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
MODULES DECLARED	X	X	X	INA	INA	INA	INA	INA	INA	INA	INA	INA	X	X	X	X	X
GEOGRAPHY	GLO	GLO	IT	-	-	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
SPECIFIC DATA USED	60%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
VARIATION PRODUCTS	Not applicable			-	-	-	-	-	-	-	-	-	-	-	-	-	-
VARIATION SITES	Not applicable			-	-	-	-	-	-	-	-	-	-	-	-	-	-

Content information

PRODUCT COMPONENTS	WEIGHT, KG	POST-CONSUMER MATERIAL, WEIGHT-%	BIOGENIC MATERIAL, WEIGHT-% AND KG C/KG
MARBLE	27	---	---
TOTAL	27	---	---

PACKAGING MATERIALS	WEIGHT, KG	WEIGHT-% (VERSUS THE PRODUCT)	WEIGHT BIOGENIC CARBON, KG C/KG
WOOD	2.18	<0.1%	1.09
POLYETHYLENE	0.00041	<0.1%	---
POLYURETHANE	0.00022	<0.1%	---
TOTAL	2.18	8.1%	0.00070

Results of the environmental performance indicators

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

INDICATOR	REFERENCE UNIT	A1 - A3	C1	C2	C3	C4	D
ADP* (fossil)	MJ	1.87E+02	5.02E-01	1.90E+00	0.00E+00	3.93E+00	0.00E+00
ADP* (minerals and metals)	Kg Sb eq	3.95E-05	1.49E-08	2.87E-07	0.00E+00	3.17E-07	0.00E+00
AP	Mole H+ eq	5.41E-02	1.63E-04	8.53E-04	0.00E+00	1.34E-03	0.00E+00
EP Freshwater	Kg Peq	1.75E-03	1.12E-06	7.98E-06	0.00E+00	1.32E-05	0.00E+00
GWP Biogenic	Kg CO_2 eq	2.33E+00	6.84E-06	7.67E-04	0.00E+00	9.25E-05	0.00E+00
GWP Fossil	Kg CO_2 eq	1.49E+01	3.71E-02	1.23E-01	0.00E+00	1.42E-01	0.00E+00
GWP Luluc	Kg CO_2 eq	5.20E-05	6.38E-09	3.53E-05	0.00E+00	1.02E-07	0.00E+00
GWP Total	Kg CO_2 eq	1.72E+01	3.71E-02	1.24E-01	0.00E+00	1.42E-01	0.00E+00
EP Marine	Kg N eq	1.83E-02	6.04E-05	3.37E-04	0.00E+00	4.67E-04	0.00E+00
ODP	Kg CFC-11 eq	2.02E-06	7.94E-09	2.92E-08	0.00E+00	5.84E-08	0.00E+00
POCP	Kg NMVOC	4.34E-02	1.89E-04	1.04E-03	0.00E+00	1.48E-03	0.00E+00
EP Terrestrial	Mole Neq	1.39E-01	6.62E-04	3.78E-03	0.00E+00	5.13E-03	0.00E+00
WDP*	m^3	4.18E+00	1.22E-03	8.91E-03	0.00E+00	1.84E-01	0.00E+00

ADDITIONAL MANDATORY AND VOLUNTARY IMPACT CATEGORY INDICATORS

IMPACT CATEGORY	REFERENCE UNIT	A1 - A3	C1	C2	C3	C4	D
GWP-GHG	Kg CO_2 eq	1.49E+01	3.68E-02	1.22E-01	0.00E+00	1.39E-01	0.00E+00

RESOURCE USE INDICATORS

IMPACT CATEGORY	REFERENCE UNIT	A1 - A3	C1	C2	C3	C4	D
PERT	MJ	9.21E+01	2.57E-03	2.30E-02	0.00E+00	3.13E-02	0.00E+00
PERM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERE	MJ	9.21E+01	2.57E-03	2.30E-02	0.00E+00	3.13E-02	0.00E+00
PENRT	MJ	1.97E+02	5.06E-01	1.94E+00	0.00E+00	3.97E+00	0.00E+00
PENRM	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PENRE	MJ	1.97E+02	5.06E-01	1.94E+00	0.00E+00	3.97E+00	0.00E+00
SM	Kg	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
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FWT	m^3	4.56E-03	2.56E-06	5.14E-05	0.00E+00	4.05E-03	0.00E+00

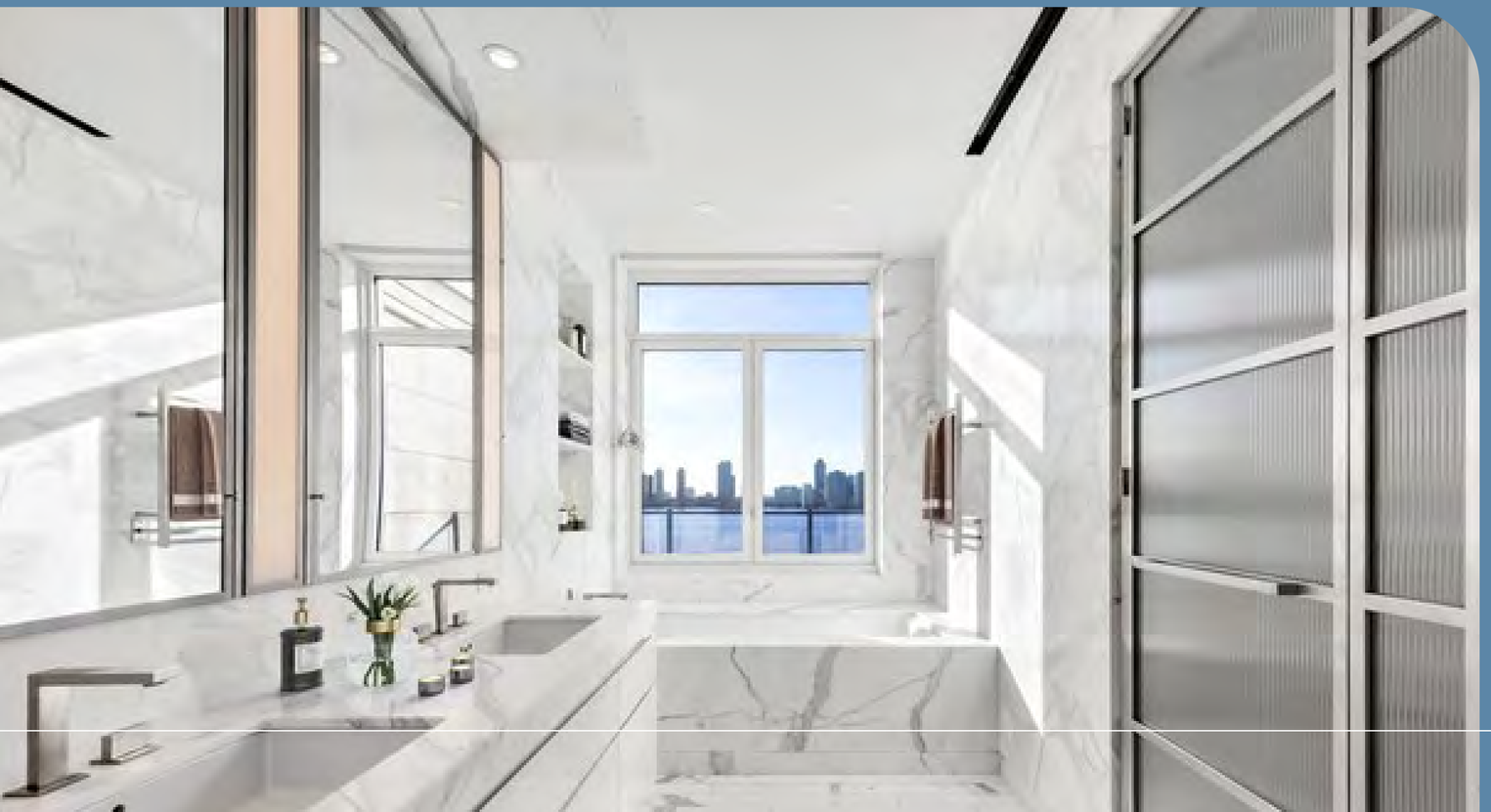
WASTE INDICATORS

IMPACT CATEGORY	REFERENCE UNIT	A1 - A3	C1	C2	C3	C4	D
HWD	Kg	2.90E-04	1.37E-06	4.67E-06	0.00E+00	5.86E-06	0.00E+00
NHWD	Kg	1.29E+01	2.37E-02	2.56E-01	0.00E+00	2.72E+01	0.00E+00
RWD	Kg	3.70E-04	3.52E-06	1.33E-05	0.00E+00	2.61E-05	0.00E+00

ZEN GARDEN [VERONA] - 2019

OUTPUT FLOW INDICATORS

IMPACT CATEGORY	REFERENCE UNIT	A1 - A3	C1	C2	C3	C4	D
CRU	Kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	Kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	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
EE	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00



70TH VESTRY STREET
[NEW YORK] - 2017

ACRONYMS

ENVIRONMENTAL IMPACTS:

ADP* - Abiotic Depletion Potential (fossil - minerals & metals);

AP - Acidification Potential;

EP - Eutrophication Potential;

GWP - Global Warming Potential;

ODP - Ozone Depletion Potential;

POCP - Photochemical Ozone Creation Potential;

WDP* - Water Deprivation Potential.

RESOURCE CONSUMPTION:

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;

FWT - Use of net fresh water;

WASTE PRODUCTION:

HWD - Hazardous waste disposed;

NHWD - Non-hazardous waste disposed;

RWD - Radioactive waste disposed;

CRU - Components for reuse;

MFR - Materials for recycling;

MER - Materials for energy recovery;

EE - Exported energy;

* Disclaimer:
The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

ERREBI MARMI

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References General Programme Instructions of the International EPD® System. Version 4.0.

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