

ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804+A2 

ISOMAT SA MULTIFILL 2-5



Owner of the declaration

ISOMAT SA
17th km Thessaloniki-Ag. Athanasios
57003 THESSALONIKI
Greece

Product

MULTIFILL 2-5

Declared product / Declared unit

1 kg

This declaration is based on Product Category Rules

EN 15804:2012 + A2:2019,
NPCR Part A:2021 ,
NPCR 009 Part B for Technical chemical
Products for Construction

Program operator:

EPD Global
Majorstuen P.O. Box 5250
N-0303 Oslo
Norway

Declaration number

NEPD-11745-11745-2

Registration number

NEPD-11745-11745-2

Issue date

26.05.2026

Valid to

25.05.2031

EPD Software

Emidat Platform v1.0.0

General Information

Product

MULTIFILL 2-5

Program Operator

EPD Global
Majorstuen P.O. Box 5250
N-0303 Oslo
Norway
Phone: +47 23 08 80 00
Email: post@epd-norge.no

Declaration Number

NEPD-11745-11745-2

This declaration is based on Product Category Rules

EN 15804:2012 + A2:2019,
NPCR Part A:2021 ,
NPCR 009 Part B for Technical chemical Products for
Construction

Statements

The owner of the declaration shall be liable for the
underlying information and evidence. The Norwegian
EPD Foundation shall not be liable with respect to
manufacturer, life cycle assessment data and evidences.

Declared unit

1 kg

General information on verification of EPD from EPD tools

Independent verification of data, other environmental
information and the declaration according to ISO
14025:2010, § 8.1.3 and § 8.1.4. Verification of each EPD is
made according to EPD Global's guidelines for
verification and approval requiring that tools are i)
integrated into the company's environmental
management system, ii) the procedures for use of the
EPD tool are approved by EPD Global, and iii) the process
is reviewed annually by an independent third party
verifier. See Appendix G of EPD Global's General
Programme Instructions for further information on EPD
tools.

Verification of EPD tool

Charlotte Merlin, FORCE Technology
(no signature required)

Owner of the declaration

ISOMAT SA

Contact person

info@isomat.gr

Phone

+30 2310576000

Email

info@isomat.gr

Manufacturer

ISOMAT SA
17th km Thessaloniki-Ag. Athanasios
57003 THESSALONIKI, Greece

Place of production

Θεσσαλονίκη, Greece

Management system

-

Issue date

26.05.2026

Valid to

25.05.2031

Year of study

2025

Comparability

EPDs of construction products may not be comparable if
they do not comply with EN 15804 and are not seen in a
building context. EPD data may not be comparable if the
datasets used are not developed in accordance with EN
15804 and if the background systems are not based on
the same database (including primary and secondary
data).

Development and verification of EPD

The declaration was created using the Emidat EPD tool
v1.0, developed by Emidat GmbH. The EPD tool has been
approved by EPD Global.

Developer of EPD: Petrini Kampragkou

Reviewer of company-specific input data and EPD:
Stavros Moschidis

Approved



Håkon Hauan, The Norwegian EPD Foundation

Product

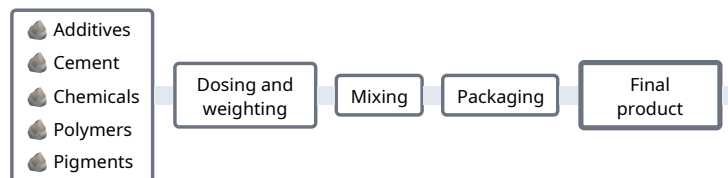
Product description

This is a cement-based, colored tile grout offering high mechanical strength and excellent color stability. It is suitable for joint width 2-5 mm, available in 28 shades, and classified as type CG2 WA tile grout according to EN 13888.

Application description

Used in construction for grouting tile joints on walls and floors, in both indoor and outdoor applications.

Production process



Product specification

Name of ingredient	Share of total weight	Country of origin
Additives	0 - 2 %	Greece
Cement	30 - 50 %	Greece
Chemicals	30 - 50 %	Various
Pigments	0 - 2 %	Germany
Polymers	0 - 2 %	Various

Technical data

	Unit	Value
Gross density	kg / m ³	1250
Mixing water demand	l / kg	0.26

Market

Global

Recipients

B2B

LCA: Calculation rules

Declared unit

1 kg

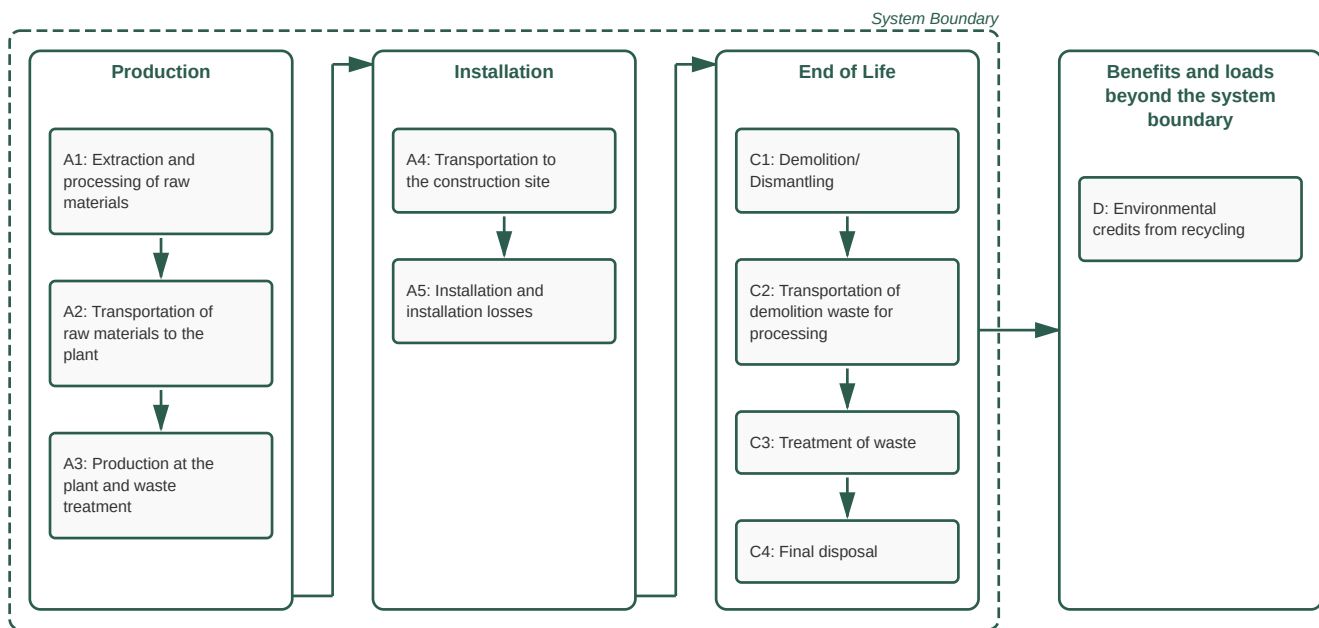
Product lifetime

Not declared

Reference service life

Not declared

System boundary



Data quality

The foreground data are based on extensive and detailed data collection at the production site of the manufacturer, covering key processes such as raw material sourcing, formulation, and manufacturing. These foreground data are fully linked with corresponding datasets from the background database (ecoinvent 3.10) or with EN15804+A2-compliant EPDs, ensuring consistency, reliability, and maintaining alignment with the latest industry standards.

The following EN15804+A2-compliant EPDs are used as datasets in this EPD:

Element	Year
Cement	2026
Chemicals	2024
Pigments	2023

The overall data representativeness is rated as good with an overall score of 4.00/5 , in accordance with EN 15804+A2 Annex E guidance on data quality assessment, considering geographical, technical, and temporal representativeness.

The following table discloses all processes or activities assessed with very poor or poor data representativeness according to EN 15804+A2, as well as those assessed as fair that contribute more than 30 % to any core impact indicator in A1–A3:

Element	Minimal Representativeness	Source	Year
Additives	Poor	ecoinvent 3.10	2023
Aggregates	Poor	ecoinvent 3.10	2023
Landfill	Poor	ecoinvent 3.10	2023
Pigments	Poor	ecoinvent 3.10	2023
Polymers	Poor	ecoinvent 3.10	2023
Chemicals	Fair	ecoinvent 3.10	2023
PET	Fair	ecoinvent 3.10	2023

System boundaries (X=included, MND=module not declared)

	Production			Installation		Use stage							End-of-Life				Next product system
	Raw material supply	Transport	Manufacturing	Transport	Installation Process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Demolition	Transport	Waste Processing	Disposal	Benefits and loads beyond the system boundary
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	x	x	x	x	x	MND	MND	MND	MND	MND	MND	MND	x	x	x	x	x
Geography			GR	Global	Global	MND	MND	MND	MND	MND	MND	MND	Global	Global	Global	Global	Global

For the geographies modeled in A1 and A2, refer to *Product specification*.

Type of EPD: Cradle to gate with options, modules A4, A5, C1-C4 + D

Stage of Material Production and Construction

Module A1: Extraction and processing of raw materials

Module A2: Transportation of raw materials to the plant

Module A3: Production at the plant and waste treatment

Module A4: Transportation to the construction site

Module A5: Installation and installation losses

Disposal Stage

Module C1: Demolition/Dismantling

Module C2: Transportation of demolition waste for processing

Module C3: Treatment of waste

Module C4: Final disposal

Credits and burdens outside the system boundaries

Module D: Environmental credits from recycling

Cut-off criteria

No cut-offs were applied.

Allocation

Foreground inventory data (energy and fuels, ancillary materials, emissions and waste) was collected at the production process level. Mass-based allocation was applied to allocate the total output of the production process in 2025 to the

reference product.

Key assumptions and estimates

Production process flows are allocated to the reference product, as described under allocation. The mass-based allocation assumes a uniform distribution of production impacts across co-products. Foreground inventory data is checked for consistency of production process, to ensure the validity of the allocated results.

LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD.

Transport to the building site (A4)	Value	Unit
Transported mass: Product and packaging	1.03	kg
Truck: Distance	300.00	km
Truck: Energy demand	1.58	MJ / t*km
Truck: Activity	transport, freight, lorry >32 metric ton, EURO6	-
Truck: Capacity utilization	53.30	%

Installation into the building (A5)	Value	Unit
Treatment of packaging waste	Landfill	
Installation loss	5.00	%
Water	0.26	kg
Product mass after installation	1.26	kg

During installation, water is added to the product. For the remaining lifecycle stages, this LCA considers the total mass of the product including the water. The grout is worked into tile joints using a rubber float and later wiped to remove excess. Small amounts of grout may remain in buckets or as wash-down residue after application. A5 includes these measurable losses, while minor auxiliary inputs such as tool use or rinsing are excluded.

Demolition (C1)	Value	Unit
Diesel for dismantling	0.08	MJ
PM 2.5 emissions	2.09e-05	kg
PM 10 emissions	7.99e-05	kg

Transport to the waste facility (C2)	Value	Unit
Mass to landfill	1.13	kg
Mass to recycling	0.13	kg
Distance to landfill	50.00	km
Distance to recycling	50.00	km
Truck: Activity	transport, freight, lorry >32 metric ton, EURO6	-
Truck: Capacity utilization	53.30	%
Truck: Distance	50.00	km
Truck: Energy demand	1.58	MJ / t*km

Module C2 includes the impact of transportation of material after deconstruction, during the End-of-Life stage.

Waste processing (C3)	Value	Unit
Material for recycling	0.13	kg
Recycling rate	10.00	%

Disposal (C4)	Value	Unit
Material for landfill	1.13	kg

Reuse, recovery and/or recycling potentials (D)	Value	Unit
Amount of secondary material that the system takes in	0	kg
Installation: Material eligible for recycling/reuse credits	0	kg
End-of-life: Material eligible for recycling/reuse credits	0.13	kg
Substitution of gravel	0.13	kg
Production: Exported energy eligible for credits	0	MJ
Installation: Exported energy eligible for credits	0	MJ
End-of-life: Exported energy eligible for credits	0	MJ

Calculation of loads and benefits per EN 15804+A2. Materials that entered the product system as secondary materials in A1 do not yield credits in module D.

LCA: Results

The following results are based on the market-based electricity approach applied to the foreground system (A3). Further details on electricity data are provided in the Additional Requirements section.

Core environmental impact indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO ₂ -eq.	8.15e-01	3.22e-02	1.05e-01	7.73e-03	6.55e-03	8.88e-04	1.01e-02	-4.76e-04
GWP-fossil	kg CO ₂ -eq.	8.14e-01	3.21e-02	1.05e-01	7.73e-03	6.55e-03	5.52e-04	7.09e-03	-4.75e-04
GWP-biogenic	kg CO ₂ -eq.	7.09e-04	5.04e-07	2.77e-04	7.71e-07	1.03e-07	3.36e-04	3.03e-03	-6.00e-07
GWP-luluc	kg CO ₂ -eq.	2.05e-04	1.34e-05	8.33e-05	6.71e-07	2.74e-06	4.79e-08	3.68e-06	-3.69e-07
ODP	kg CFC-11-Eq	4.84e-07	5.17e-10	2.47e-08	1.18e-10	1.05e-10	8.44e-12	2.05e-10	-4.81e-12
AP	mol H ⁺ -Eq	2.45e-03	8.19e-05	4.21e-04	6.97e-05	1.67e-05	4.98e-06	5.02e-05	-3.33e-06
EP-freshwater	kg P-Eq	7.84e-05	2.60e-06	2.98e-05	2.25e-07	5.30e-07	1.61e-08	5.88e-07	-1.27e-07
EP-marine	kg N-Eq	5.36e-04	2.08e-05	1.56e-04	3.23e-05	4.23e-06	2.31e-06	1.91e-05	-1.05e-06
EP-terrestrial	mol N-Eq	5.79e-03	2.25e-04	9.04e-04	3.54e-04	4.58e-05	2.53e-05	2.09e-04	-1.19e-05
POCP	kg NMVOC-Eq	2.31e-03	1.24e-04	3.04e-04	1.06e-04	2.52e-05	7.54e-06	7.49e-05	-3.55e-06
ADPE	kg Sb-Eq	5.21e-06	9.28e-08	3.51e-07	2.77e-09	1.89e-08	1.98e-10	1.12e-08	-2.59e-09
ADPF	MJ, net calorific value	7.97e+00	4.84e-01	1.21e+00	1.01e-01	9.85e-02	7.22e-03	1.74e-01	-5.86e-03
WDP	m ³ world Eq deprived	1.58e-01	2.32e-03	2.04e-02	2.47e-04	4.72e-04	1.77e-05	4.86e-04	-7.28e-05

GWP-total: Global Warming Potential - total , **GWP-fossil:** Global warming potential - fossil , **GWP-biogenic:** Global Warming Potential - biogenic , **GWP-luluc:** Global Warming Potential - luluc , **ODP:** Depletion potential of the stratospheric ozone layer , **AP:** Acidification potential, Accumulated Exceedance , **EP-freshwater:** Eutrophication potential - freshwater , **EP-marine:** Eutrophication potential - marine , **EP-terrestrial:** Eutrophication potential - terrestrial , **POCP:** Photochemical Ozone Creation Potential , **ADPE:** Abiotic depletion potential - non-fossil resources , **ADPF:** Abiotic depletion potential - fossil resources , **WDP:** Water (user) deprivation potential

Additional indicators

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PM	disease incidence	ND	3.15e-09	ND	1.14e-08	6.42e-10	1.08e-09	1.14e-09	-6.65e-11
IRP	kBq U235-Eq	ND	4.26e-04	ND	4.52e-05	8.68e-05	3.23e-06	1.11e-04	-3.06e-05
ETP-fw	CTUe	ND	1.16e-01	ND	1.43e-02	2.37e-02	1.02e-03	2.38e-02	-2.38e-03
HTP-c	CTUh	ND	1.65e-10	ND	3.02e-11	3.37e-11	2.16e-12	3.20e-11	-4.36e-12
HTP-nc	CTUh	ND	3.18e-10	ND	1.37e-11	6.47e-11	9.79e-13	3.12e-11	-3.73e-12
SQP	dimensionless	ND	4.86e-01	ND	7.08e-03	9.90e-02	5.05e-04	3.42e-01	-8.20e-03

PM: Potential incidence of disease due to PM emissions , **IRP:** Potential Human exposure efficiency relative to U235 , **ETP-fw:** Potential Comparative Toxic Unit for ecosystems , **HTP-c:** Potential Comparative Toxic Unit for humans - cancer effects , **HTP-nc:** Potential Comparative Toxic Unit for humans - non-cancer effects , **SQP:** Potential Soil quality index . **IRP:** This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator. **ETP-fw, HTP-c, HTP-nc** and **SQP:** The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with these indicators.

Use of resources

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE	MJ	1.18e+00	6.34e-03	1.49e-01	6.18e-04	1.29e-03	4.41e-05	1.61e-03	-4.07e-04
PERM	MJ	7.05e-02	0.00e+00	3.52e-03	0.00e+00	0.00e+00	-7.05e-03	0.00e+00	0.00e+00
PERT	MJ	1.25e+00	6.34e-03	1.52e-01	6.18e-04	1.29e-03	-7.00e-03	1.61e-03	-4.07e-04
PENRE	MJ	7.16e+00	4.84e-01	1.17e+00	1.01e-01	9.85e-02	7.22e-03	1.74e-01	-5.86e-03
PENRM	MJ	8.12e-01	0.00e+00	4.06e-02	0.00e+00	0.00e+00	-9.17e-03	0.00e+00	0.00e+00
PENRT	MJ	7.97e+00	4.84e-01	1.21e+00	1.01e-01	9.85e-02	-1.95e-03	1.74e-01	-5.86e-03
SM	kg	1.57e-05	0.00e+00	7.83e-07	0.00e+00	0.00e+00	0.00e+00	0.00e+00	1.26e-01
RSF	MJ	1.45e-05	0.00e+00	7.28e-07	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
NRSF	MJ	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
FW	m³	3.99e-03	7.12e-05	6.78e-04	6.56e-06	1.45e-05	4.69e-07	1.80e-04	-1.77e-04

PERE: Primary energy resources - renewable: use as energy carrier , **PERM**: Primary energy resources - renewable: used as raw materials , **PERT**: Primary energy resources - renewable: total , **PENRE**: Primary energy resources - non-renewable: use as energy carrier , **PENRM**: Primary energy resources - non-renewable: used as raw materials , **PENRT**: Primary energy resources - non-renewable: total , **SM**: Use of secondary material , **RSF**: Renewable secondary fuels , **NRSF**: Non-renewable secondary fuels , **FW**: Net use of fresh water

Waste flows

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD	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
NHWD	kg	1.40e-02	0.00e+00	8.21e-02	0.00e+00	0.00e+00	0.00e+00	1.13e+00	0.00e+00
RWD	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

HWD: Hazardous waste disposed , **NHWD**: Non hazardous waste disposed , **RWD**: Radioactive waste disposed

Output flows

Indicator	Unit	A1-A3	A4	A5	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	0.00e+00	0.00e+00
MFR	kg	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	1.26e-01	0.00e+00	0.00e+00
MER	kg	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
EEE	MJ	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00
EET	MJ	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00	0.00e+00

CRU: Components for re-use , **MFR**: Materials for recycling , **MER**: Materials for energy recovery , **EEE**: Exported electrical energy , **EET**: Exported thermal energy

Name	Value	Unit
Biogenic carbon content in product	9.18e-04	kg C
Biogenic carbon content in accompanying packaging	0.00e+00	kg C

Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

Electricity consumption in the manufacturing phase is composed from the sources below. This EPD follows the market-based approach.

Approach	Electricity	Quantity [kWh]	Emission Factor [kg CO ₂ e/kWh]
market-based	ecoinvent: electricity, low voltage, residual mix (GR)	3.11e-03	0.78
(location-based)	(ecoinvent: market for electricity, low voltage (GR))	(3.11e-03)	(0.62)
-	ecoinvent: electricity production, photovoltaic, 3kWp slanted-roof installation, single-Si, panel, mounted (GR)	5.40e-04	0.08

Rows marked with () are provided for reference and not used in the assessment.

Dangerous substances

The product contains no hazardous substances given by the REACH Candidate List or the Norwegian Priority List.

Additional environmental information

Additional environmental impact indicators required in NPCR Part A for construction products

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-IOBC	kg CO ₂ -eq.	8.14e-01	3.22e-02	1.05e-01	7.73e-03	6.55e-03	5.52e-04	7.10e-03	-4.76e-04

GWP-IOBC: Global Warming Potential - Instantaneous oxidation of biogenic carbon

Bibliography

CEN/TR 15941:2010	Sustainability of construction works - Environmental product declarations - Methodology for selection and use of generic data
EN 15804:2012+A2:2019	Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products
EN 15942:2022-04	Sustainability of construction works - Environmental product declarations - Communication format business-to-business
ISO 14025:2011-10	Environmental labels and declarations - Type III environmental declarations - Principles and procedures
ISO 14040:2021-02	Environmental management - Life cycle assessment - Principles and framework
ISO 14044:2021-02	Environmental management - Life cycle assessment - Requirements and guidelines
EF 3.1	Environmental Footprint (EF) Life Cycle Impact Assessment method - Characterisation Factors version 3.1, European Commission, Joint Research Centre (JRC)
ecoinvent 3.10	ecoinvent, Zurich, Switzerland, database version 3.10
NPCR Part A:2021	Construction products and services, Version 2.0. Issue date: 24.03.2021; validity extended to 24.03.2026.
NPCR 009:2021	Product category rules, Part B: Technical chemical products for the building and construction industry. Issue date: 06.10.2021; validity extended to 30.06.2026.

 epd-global Powered by EPD-Norway	Program Operator	Phone	+47 23 08 80 00
	EPD Global	Email	post@epd-norge.no
	P.O. Box 5250 Majorstuen, N-0303 Oslo Norway	Web	www.epd-global.no
 epd-global Powered by EPD-Norway	Publisher	Phone	+47 23 08 80 00
	EPD Global	Email	post@epd-norge.no
	P.O. Box 5250 Majorstuen, N-0303 Oslo Norway	Web	www.epd-global.no
	Owner of the declaration	Phone	+30 2310576000
	ISOMAT SA	Email	info@isomat.gr
	17th km Thessaloniki-Ag. Athanasios, 57003 THESSALONIKI Greece	Web	www.isomat.net
	Author of the life cycle assessment	Phone	+30 2310576000
	ISOMAT SA	Email	info@isomat.gr
	17th km Thessaloniki-Ag. Athanasios, 57003 THESSALONIKI Greece	Web	www.isomat.net
	ECO Platform	Web	www.eco-platform.org
	ECO Portal	Web	ECO Portal
 EMIDAT	Developer of EPD generator	Phone	+49 176 56 96 77 91
	Emidat GmbH	Email	epd@emidat.com
	Sandstraße 33, 80335 München Germany	Web	www.emidat.com