

Owner: Promal A/S  
No.: MD-26005-EN  
Issued: 18-12-2025  
Valid to: 18-12-2030

3<sup>rd</sup> PARTY VERIFIED  
**EPD**

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | ISO 14025 & EN 15804



**Owner of declaration**

Promal A/S  
 Joachim Wellers Vej 27, 7500 Holstebro  
 DK20669438  
<https://www.promal.dk/>


**Programme**

EPD Danmark  
[www.epddanmark.dk](http://www.epddanmark.dk)



Industry EPD  
 Product EPD

Product specific  
 Average  
 Worst Case

**Declared product(s)**

Profloor EPW-maling

Number of declared datasets/product variations: 1

**Production site**

Joachim Wellers Vej 27, 7500 Holstebro,  
 Denmark

**Issued:**  
 18-12-2025

**Valid to:**  
 18-12-2030

**Basis of calculation**

This EPD is developed and verified in accordance with the European standard EN 15804+A2.

**Comparability**

EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. 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.

**Validity**

This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

**Use**

The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

**EPD type**

Cradle-to-gate with modules C1-C4 and D  
 Cradle-to-gate with options, modules C1-C4 and D  
 Cradle-to-grave and module D  
 Cradle-to-gate  
 Cradle-to-gate with options

**Use of Guarantees of Origin**

No certificates used  
 Electricity covered by GoO  
 Biogas covered by GoO

**Declared/ functional unit**

1 kg

**Year of production site data (A3)**

2024

**EPD version**

No. 1

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

internal  external

Third party verifier:



Mirko Miseljic  
 LCA Specialists



Martha Katrine Sørensen

EPD Danmark

Life cycle stages and modules (MND = module not declared)																	
Product			Construction process		Use								End of life			Beyond the system boundary	
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
<b>X</b>	<b>X</b>	<b>X</b>	ND	ND	ND	ND	MD	ND	ND	ND	ND	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	

# Product information

## Product description

The main product components are shown in the table below.

	Proffloor EPW-maling
Material	Weight-% of declared product
Amine curing agents and accelerators	6%
Epoxy resins and dispersions	48%
Mineral fillers and pigments	35%
Water	8%
Cutoff	3%

## Product packaging:

The composition of the sales- and transport packaging of the product is shown in the table below.

	Proffloor EPW-maling
Material	Weight of product packaging [kg]
Plastic container (HDPE)	0.051
Pallet (wood)	0.031
Cardboard	0.004
Material	Weight-% of product packaging
Plastic container (HDPE)	59%
Pallet (wood)	36%
Cardboard	5%

## Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of resinous coating products on the production site of Promal A/S located in Denmark. Product specific data are based on average values collected in the period 2024. Background data are based on Ecoinvent 3.11 and are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Data quality is assessed in accordance with the criteria defined in the UN Environment Global Guidance on LCA database development as prescribed by Annex E in EN 15804+A2:2019.

End-of-life, declared in modulus C1-C4, is modelled representatively of the current Danish context.

## Hazardous substances

The product declared do not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation"

(<http://echa.europa.eu/candidate-list-table>)

## Product(s) use

The paint product, Proffloor EPW-maling is a water-based 2-component epoxy paint, consisting of an emulsified and pigmented epoxy hardener and a corresponding, possibly emulsified, epoxy resin. The system consists of two coats of Proffloor water-based epoxy paint and can be used for painting concrete floors and walls, as well as previously painted surfaces and wooden substrates. It is designed for use in areas requiring dust-free, uniform, and visually appealing surfaces with good durability. The product is suitable for floors exposed to pedestrian and light rolling traffic, such as storage areas, utility and technical rooms, exhibition spaces, and similar environments. The two components are mixed prior to use and applied to the surface using a roller or brush.

## Essential characteristics

Property	EPW Paint (system)
Product type	Waterborne 2-component epoxy paint (item no. 6691-S, consisting of 6691 / 6171).
Density (kg/L)	≈ 1.4 kg/L (ready-mixed; measured according to ISO 2811).
Viscosity (cP)	≈ 2500 cP (ready-mix at 23°C).
Pot life	~3 hours at 23°C and 65% RH.
Consumption	Priming: ~0.15 kg/m <sup>2</sup> + 10% water. Topcoat: ~0.20 kg/m <sup>2</sup> per coat, depending on substrate and method.
Application temp.	Developed for 10–25°C; usable range 10–30°C for air, substrate and material.
Humidity limit	Max. 80% RH; air and substrate temperature ≥ 3°C above current dew point.
Substrate residual moisture	< 4% for mineral substrates (e.g. concrete).
Overcoat window	Min. 4 hours, max. 48 hours at 23°C and 65% RH.
Drying / curing	Light traffic after ~24 hours. Fully cured after ~7 days at 23°C and 65% RH.
Adhesion	> 1 N/mm <sup>2</sup> on sound, properly prepared substrate.
Mixing ratio	2 : 1 (A : B by weight).

## Drying & curing time

Pot life:

- approx. 3 hours at 23°C and 65% RH.

Overcoat window (23°C, 65% RH):

- Minimum 4 hours, maximum 48 hours between coats.

Drying / curing (23°C, 65% RH):

- Light traffic: after ~24 hours.
- Fully cured / maximum mechanical and chemical resistance: after ~7 days.

Storage & shelf life

Storage conditions:

- Store in original, tightly closed containers at +5°C to +25°C, protected from frost and direct sunlight.

Shelf life:

- At least 24 months from production date when stored correctly.

Standards & Conformity

- EN 1504-2 – Concrete surface protection systems.
- EN 13813 – Screed materials and resin floorings.
- REACH Regulation (EC) 1907/2006.
- CLP Regulation (EC) 1272/2008.
- EN ISO 2811 (density).
- EN ISO 868 (hardness).
- EN ISO 3219 (viscosity).

Picture of product(s)

### Profloor EPW-maling



More information about the product can be obtained by contacting the manufacturer or on the manufacturer's website:

<https://www.promal.dk/>

### Reference Service Life (RSL)

No Reference Service Life (RSL) is declared as the use stage is not included.

# LCA background

## Declared unit

The LCI and LCIA results in this EPD are calculated for a kg of product.

	Declared unit	Density	Conversion factor to 1 kg.
Unit	kg	kg/l	-
Profloor EPW-maling	1	1.4	1

## Functional unit

Not defined

Electricity used by equipment during the formulation of the declared products is modelled using a dataset for the residual grid mix in Denmark.

Information about the energy mix in the foreground system:

Energy mix	EF	Unit
Residual grid mix, electricity, medium voltage   DK	0,724	kg CO <sub>2</sub> e/kWh
heat production, light fuel oil, at boiler 100kW, non-modulating   Heat, Central or small-scale, other than natural gas   Europe without Switzerland.	0,102	kg CO <sub>2</sub> e/MJ

## PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804:2012+A2:2019

## Energy modelling principles

### Foreground system:

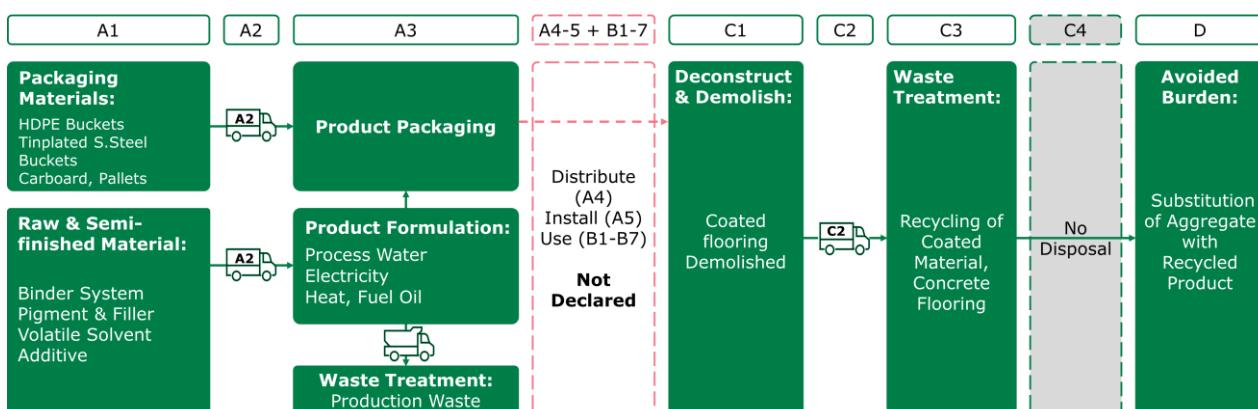
No Guarantee of Origin (GoO) certificates are used in this EPD. Consumption of electricity at the production site of Promal A/S is modelled with the residual grid mix in Denmark.

Heat is used by Promal A/S in the production of the declared products, as ambient facility heating. This heat is modelled with a 100kW light fuel oil boiler, similar to what is used by Promal.

### Background system:

For processes both upstream and downstream of the production process declared in module A3, the background data for electricity consumption is based on average national electrical grid mix consumptions as opposed to a residual grid mix as with the foreground system. To do otherwise is not possible for background data within the ecoinvent datasets.

## Flowdiagram



## System boundary

This EPD is based on a cradle-to-gate with options, modules C1-C4 and D, LCA, in which over 95 weight-% has been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

This EPD applies the "Cut-off by classification" system boundary according to EN 15804. No upstream environmental burdens are allocated to recycled inputs; all impacts from waste processing and recycling are assigned to the product system generating the waste.

## Allocation

The inventory values for 1kg of EPW-Mailing product are calculated by considering the total produced kg of product in 2024. Annual production percentages are taken into account for allocation, according to the ratio of the annual production of the declared product to the total annual production. The annual consumption of Fuel, Electricity, and water consumption as well as packaging materials and waste producer per declared product is allocated uniformly by mass, except for 10% of onsite fuel oil consumption specifically used to heat epoxy resins produced on site, which was allocated by the mass to other products by the epoxy resin they contain as an ingredient, specifically Promal's 2-K Epoxy Resin Coatings.

## Product stage (A1-A3) includes:

- A1 – Extraction and processing of raw materials
- A2 – Transport to the production site
- A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, products and energy, transport to the production site, product packaging, transport of waste, and waste processing up to the "end-of-waste" state or final disposal. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

The manufacturing of the resin-based flooring products detailed in this EPD takes place at Promal A/S in Holstebro, Denmark.

Product formulations are based on blends of epoxy resins, hardeners, alcohols, and additives, with each product tailored to specific performance applications.

The production process consists of dosing and mixing chemical ingredients in dedicated industrial mixers, quality control testing, and packaging in both plastic and metal containers, before being placed on pallets lined with cardboard for transport.

All product and packaging waste is managed according to best environmental practices.

The EPD results cover the entire product stage as an aggregated A1-A3 module.

## **Construction process stage (A4-A5) includes:**

Not included

## **Use stage (B1-B7) includes:**

Not included

## **End of Life (C1-C4) includes:**

The end-of-life stage for resin-based flooring coatings begins with the removal of the coated concrete elements from the building at deconstruction or renovation. Removal is assumed to be performed using standard demolition equipment such as handheld jackhammers and is electrically powered, with consumption calculated according to typical industry practice.

After dismantling, the demolished building elements, with the coating, are transported an assumed distance of 50 km by truck to a waste treatment facility.

The waste treatment of the coating follows the same end-of-life pathway as the concrete floor it's hardened into, as it's currently not designed to be feasibly separated. It is therefore crushed and recycled as a low-grade aggregate for road sub-base material.

None of the declared products are disposed of in landfill.

**Re-use, recovery and recycling potential (D) includes:**

Module D represents benefits or loads beyond the system boundary. In accordance with the guidelines of EN15804+A2, only virgin materials are credited in module D.

The recycled materials displace the use of virgin gravel as road sub-base material.

## LCA results

ENVIRONMENTAL IMPACTS PER KG OF EPW-MALING							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
GWP-total	[kg CO <sub>2</sub> eq.]	2.61E+00	2.08E-05	6.33E-03	2.98E-03	0.00E+00	-4.57E-03
GWP-fossil	[kg CO <sub>2</sub> eq.]	2.54E+00	2.08E-05	6.32E-03	2.98E-03	0.00E+00	-4.52E-03
GWP-biogenic	[kg CO <sub>2</sub> eq.]	6.55E-02	-1.23E-08	4.40E-06	6.04E-07	0.00E+00	-5.45E-05
GWP-luluc	[kg CO <sub>2</sub> eq.]	4.58E-03	8.97E-09	2.13E-06	3.05E-07	0.00E+00	-2.35E-06
ODP	[kg CFC 11 eq.]	9.30E-08	5.13E-13	1.38E-10	4.42E-11	0.00E+00	-7.64E-11
AP	[mol H <sup>+</sup> eq.]	9.32E-03	1.21E-07	1.36E-05	2.66E-05	0.00E+00	-2.91E-05
EP-freshwater	[kg P eq.]	7.95E-05	1.55E-09	4.71E-08	1.04E-08	0.00E+00	-6.84E-08
EP-marine	[kg N eq.]	3.10E-03	1.54E-08	3.19E-06	1.24E-05	0.00E+00	-9.45E-06
EP-terrestrial	[mol N eq.]	2.21E-02	1.86E-07	3.53E-05	1.40E-04	0.00E+00	-1.20E-04
POCP	[kg NMVOC eq.]	9.74E-03	5.29E-08	2.15E-05	4.06E-05	0.00E+00	-3.38E-05
ADPm <sup>1</sup>	[kg Sb eq.]	2.48E-05	7.53E-10	2.22E-08	1.10E-09	0.00E+00	-4.43E-08
ADPf <sup>1</sup>	[MJ]	4.67E+01	2.50E-04	8.99E-02	3.88E-02	0.00E+00	-6.65E-02
WDP <sup>1</sup>	[m <sup>3</sup> world eq. deprived]	1.12E+00	3.92E-06	4.80E-04	1.00E-04	0.00E+00	-1.08E-02
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential						
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 <sup>2</sup> or 195, while 1,12E-11 is the same as 1,12*10 <sup>-11</sup> or 0,0000000000112.						
Disclaimer	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.						

ADDITIONAL ENVIRONMENTAL IMPACTS PER KG OF EPW-MALING							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PM	[Disease incidence]	8.69E-08	5.22E-13	4.72E-10	5.80E-09	0.00E+00	-6.55E-10
IRP <sup>2</sup>	[kBq U235 eq.]	7.15E-02	1.19E-07	3.93E-05	6.45E-06	0.00E+00	-2.80E-04
ETP-fw <sup>1</sup>	[CTUe]	3.98E+01	9.06E-05	1.21E-02	2.10E-03	0.00E+00	-1.49E-02
HTP-c <sup>1</sup>	[CTUh]	2.76E-09	9.91E-15	1.06E-12	3.04E-13	0.00E+00	-1.84E-12
HTP-nc <sup>1</sup>	[CTUh]	2.24E-08	6.23E-13	5.67E-11	4.80E-12	0.00E+00	-5.29E-11
SQP <sup>1</sup>	-	5.25E+01	6.05E-05	5.40E-02	2.58E-03	0.00E+00	-9.59E-02

Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: 1,95*10 <sup>2</sup> or 195, while 1,12E-11 is the same as 1,12*10 <sup>-11</sup> or 0,0000000000112.
Disclaimers	<sup>1</sup> The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.
	<sup>2</sup> 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.

RESOURCE USE PER KG OF EPW-MALING							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
PERE	[MJ]	9.64E+00	3.60E-04	1.48E-03	2.40E-04	0.00E+00	-1.28E-02
PERM	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	[MJ]	1.01E+01	3.60E-04	1.48E-03	2.40E-04	0.00E+00	-1.28E-02
PENRE	[MJ]	3.50E+01	2.50E-04	8.99E-02	3.88E-02	0.00E+00	-6.65E-02
PENRM	[MJ]	9.33E+00	0.00E+00	0.00E+00	-9.33E+00	0.00E+00	0.00E+00
PENRT	[MJ]	4.67E+01	2.50E-04	8.99E-02	3.88E-02	0.00E+00	-6.65E-02
SM	[kg]	1.86E-01	3.71E-07	8.78E-05	2.22E-05	0.00E+00	-1.90E-04
RSF	[MJ]	7.32E-02	5.75E-08	2.06E-05	2.31E-06	0.00E+00	-3.47E-05
NRSF	[MJ]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	[m <sup>3</sup> ]	2.98E-02	9.23E-08	1.10E-05	2.49E-06	0.00E+00	-2.50E-04
Caption	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; FW = Net use of fresh water						
	The numbers are declared in scientific notation, e.g. 1,95E+02. This number can also be written as: 1,95*10 <sup>2</sup> or 195, while 1,12E-11 is the same as 1,12*10 <sup>-11</sup> or 0,0000000000112.						

WASTE CATEGORIES AND OUTPUT FLOWS PER KG OF EPW-MALING							
Parameter	Unit	A1-A3	C1	C2	C3	C4	D
HWD	[kg]	9.13E-02	6.06E-07	9.26E-05	3.46E-05	0.00E+00	-2.30E-04
NHWD	[kg]	4.27E+00	6.75E-06	9.90E-04	2.50E-04	0.00E+00	-2.82E-03
RWD	[kg]	5.65E-05	7.81E-11	2.68E-08	4.06E-09	0.00E+00	-1.50E-07
CRU	[kg]	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MFR	[kg]	1.65E-01	4.61E-07	7.92E-05	6.78E-01	0.00E+00	-1.40E-04
MER	[kg]	3.05E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EEE	[MJ]	2.15E+00	1.33E-05	1.75E-05	1.81E-06	0.00E+00	-2.10E-04
EET	[MJ]	3.94E+00	3.36E-08	2.11E-05	8.58E-07	0.00E+00	-2.50E-05
Caption	HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy						
	The numbers are declared in scientific notation, e.g. 1,95E+02. This number can also be written as: 1,95*10 <sup>2</sup> or 195, while 1,12E-11 is the same as 1,12*10 <sup>-11</sup> or 0,0000000000112.						

BIOGENIC CARBON CONTENT PER KG OF EPW-MALING							
Parameter	Unit	At the factory gate					
Biogenic carbon content in product	[kg C]	0.00E+00					

Biogenic carbon content in accompanying packaging	[kg C]	2.26E-03
Note		1 kg biogenic carbon is equivalent to 44/12 kg of CO <sub>2</sub>

## Additional information

### LCA interpretation

The raw materials used in module A1 have the highest impact on the results.

### Technical information on scenarios

#### Transport to the building site (A4)

Not declared

#### Installation of the product in the building (A5)

Not declared

#### Reference service life

Not declared

#### Use (B1-B7)

Not declared

#### End of life (C1-C4)

Scenario information	Profloor EPW-maling	Unit
Collected separately	-	%
Collected with mixed waste	0.678*	%
For reuse	-	kg
For recycling	0.678	kg
For energy recovery	-	kg
For final disposal	-	kg
Assumptions for scenario development	Product assumed to be used as coating on Concrete Flooring which is then crushed and recycled as aggregate for road/backfill upon reaching End-of-life	-

\*The remaining mass of the product present at End-of-life was based on the total solid content of the product, as the other portion is assumed to have volatized.

#### Re-use, recovery and recycling potential (D)

Scenario information/Material	Profloor EPW-maling	Unit
Displaced material	0.678	kg
Energy recovery from waste incineration	-	MJ

### Indoor air

*The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.*

### Soil and water

*The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.*

# References

<b>Publisher</b>	 <b>epddanmark</b> <a href="http://www.epddanmark.dk">www.epddanmark.dk</a> Template version 2025.1
<b>Programme operator</b>	Danish Technological Institute Gregersensvej DK-2630 Taastrup <a href="http://www.teknologisk.dk">www.teknologisk.dk</a>
<b>LCA-practitioner</b>	Daniel Gelardi Berman Danish Technological Institute Sustainable Construction Gregersensvej DK-2630 Taastrup <a href="http://www.teknologisk.dk">www.teknologisk.dk</a>
<b>LCA software /background data</b>	OpenLCA 2.5.0 Ecoinvent 3.11 EN 15804 reference package 3.1
<b>3<sup>rd</sup> party verifier</b>	LCA Specialists Mirko Miseljic +45 23 48 83 78 <a href="mailto:lcaspecialists@outlook.com">lcaspecialists@outlook.com</a> Verified according to Verification Checklist 1 v. 2.9.1

## General programme instructions

General Programme Instructions, version 3.0, spring 2025

[www.epddanmark.dk](http://www.epddanmark.dk)

## Technical Rules and Guidelines

Technical Rules and Guidelines, version 1.0, spring 2025

[www.epddanmark.dk](http://www.epddanmark.dk)

## EN 15804

DS/EN 15804 + A2:2019 - "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products"

## EN 15942

DS/EN 15942:2011 – "Sustainability of construction works – Environmental product declarations – Communication format business-to-business"

## ISO 14025

DS/EN ISO 14025:2010 – "Environmental labels and declarations – Type III environmental declarations – Principles and procedures"

**ISO 14040**

DS/EN ISO 14040:2008 – "Environmental management – Life cycle assessment – Principles and framework"

**ISO 14044**

DS/EN ISO 14044:2008 – "Environmental management – Life cycle assessment – Requirements and guidelines"