



In accordance with ISO 14025:2006 and EN 15804:2012+A2:2019/AC:2021 for:

## DEVlcell™ LowCarbon



<b>Programme</b>	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
<b>Programme operator</b>	EPD international
<b>EPD issued</b>	2025-05-27
<b>Revision date</b>	2025-08-11
<b>EPD expires</b>	2030-05-27
<b>EPD registration number</b>	IES-0022401
<b>EPD author</b>	Danfoss Climate Solutions A/S
<b>EPD type</b>	Cradle-to-gate with options (A4, A5, C1-C4 & D)
<b>Declared unit</b>	1 unit of DEVlcell™ LowCarbon with packaging (1,60 kg)
<b>Products included</b>	DEVlcell™ LowCarbon (140F1130, 140F1131 & 140F1132)
<b>Manufacturing Location</b>	Horsens, Denmark
<b>Use Location</b>	EU
<b>Application</b>	Floor heating
<b>Mass</b>	1,23 kg without packaging 1,60 g with packaging
<b>Dimensions (H×W×D)</b>	50 x 100 x 0,13 cm
<b>Verification</b>	[ X ] External [ ] Internal [ ] None
<b>Produced to</b>	PCR 2019:14 construction products (EN 15804+A2) (1.3.4)
<b>External verifier</b>	Odysefs Papagiannidis, EPD Lead verifier under Bureau Veritas Certification Sweden, accredited by SWEDAC accr. no. 1236.

## Introduction

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

<b>Accountabilities for PCR, LCA and independent, third-party verification</b>
<b>Product Category Rules (PCR)</b>
CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product Category Rules (PCR): PCR 2019:14 construction products (EN 15804+A2) (1.3.4), UN CPC 54631, Heating equipment installation services
PCR review was conducted by: The Technical Committee of the International EPD® System. Chair: Claudia Peña. Contact via <a href="mailto:info@environdec.com">info@environdec.com</a>
<b>Life Cycle Assessment (LCA)</b>
LCA accountability: <i>Jaka Jelenc, Danfoss Climate Solutions A/S</i>
<b>Third-party verification</b>
Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:  <input checked="" type="checkbox"/> EPD verification by accredited certification body  Third-party verification: Odyssefs Papagiannidis, EPD Lead verifier on behalf of the <i>Bureau Veritas Certification Sweden</i> , an approved certification body accountable for the third-party verification.  The certification body is accredited by: <i>SWEDAC with accreditation number 1236</i> .

## Introduction

---

This Environmental Product Declaration (EPD) follows the following Product Category Rules (PCR): PCR 2019:14 construction products (EN 15804+A2) (1.3.4). These rules provide a consistent framework for calculating and reporting the environmental performance of Danfoss' heating cables and is aligned with relevant international standards, particularly ISO 14025:2006 and EN 15804+A2:2019.

### What is an EPD?

An EPD is a document used to communicate transparently, the quantified environmental impacts of a product over its lifecycle stages. This quantification is done by performing a Life Cycle Assessment (LCA) in line with a consistent set of rules known as a PCR (Product Category Rules).

An EPD provides:

- A product's carbon footprint together with other relevant environmental indicators, including air pollution, water use, energy consumption and waste, over its own life cycle (Modules A-C), as well as the expected benefits of reuse and recycling in reducing the impact of future products (Module D). See Table 1 for module descriptions.
- Environmental data allowing customers to calculate LCAs and produce EPDs for their own products.

### Type of EPD

This EPD is of the type 'cradle-to-gate with options' and includes all relevant modules: production (A1-A3), shipping (A4), deconstruction (C1), waste collection and transport (C2), treatment (C3) and disposal (C4). It also includes potential net benefits to future products from recycling or reusing post-consumer waste (D). The codes in brackets are the module labels from EN 15804+A2. Modules concerning use, maintenance, repair, replacement, refurbishment, operational energy use and operational water use (B1-B7) are not declared.

Target group of this EPD is B2B.

## Introduction

**Table 1:** Modules of the product's life cycle included in the EPD

	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	De-construction 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	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	EU-27		DK	NO	NO	-	-	-	-	-	-	-	NO	NO	NO	NO	NO
Specific data used	10%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0 %			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	Manufactured in one site			-	-	-	-	-	-	-	-	-	-	-	-	-	-

(X = declared module; ND = module not declared)

NO = Norway, DK = Denmark

## Overview of LCA study

DEVicell™ LowCarbon is an energy-efficient system, which provides up to 20% extra energy saving through integrated thermal insulation. DEVicell™ LowCarbon Insulation plate covered with aluminum and readymade groves for easy and fast installation of DEViflex™ heating cables.

The full covering aluminum effect ensures faster reaction time and an even heat distribution for the top floor. DEVicell™ LowCarbon a special system for new floor installed on top of all existing floors or sub floors. The system can be installed on the existing tiles, wooden floors or concrete floors. The system can be used under nearly all types of floor surfaces.

See more information about DEVicell™ LowCarbon on [Danfoss product store](#).



**Figure 1: DEVicell™ LowCarbon**

Characteristics:

Construction: Polystyrene with aluminium

R value: 0,26 m<sup>2</sup> K/W, based on  $\lambda_D = 0,033$  W/mK (EN 12667)

Plate size: 50 x 100 cm

Thickness: 13 mm

Aluminium thickness: 0,8 mm

Insulation: 12 mm fire retardant EPS

Deformation strength: 250 kPa (EN826) at 10% compression (from >400 kPa)

Max working temp: 80 °C

This EPD is calculated for 1 DEVicell™ LowCarbon unit (1 unit is 1 plate), the product codes covered differ in the amount of plates: 140F1130 (10 plates), 140F1131 (4 plates) & 140F1132 (100 plates).

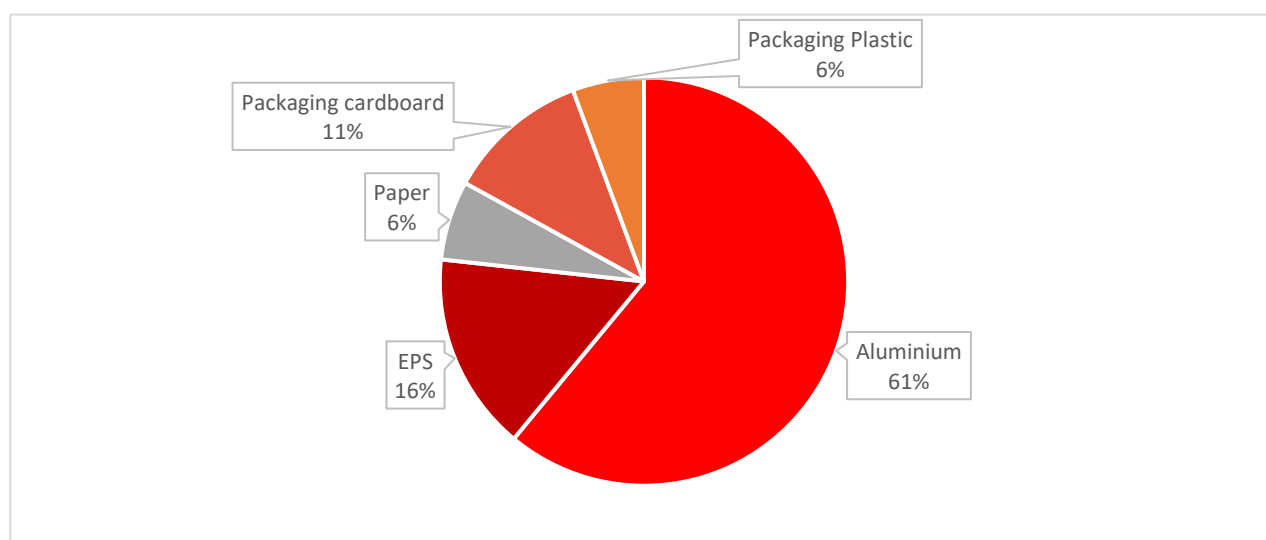
### Intended market.

The intended market of this study is Norway, and the baseline scenario involves the distribution, installation, and end-of-life in Norway.

## Overview of LCA study

**Table 2:** Product composition

Object description	Net weight	Unit	% of weight	% PCR
Aluminium	0,97	kg	61%	16,7 %
EPS	0,25	kg	16%	0,0 %
Paper	0,1	kg	6%	0,0 %
<b>Total product</b>	<b>1,33</b>	<b>kg</b>	<b>83%</b>	
Packaging cardboard	0,18	kg	11%	0,0 %
Packaging Plastic	0,09	kg	6%	0,0 %
<b>Total packaging</b>	<b>0,28</b>	<b>kg</b>	<b>18%</b>	
<b>Total product &amp; packaging</b>	<b>1,6</b>	<b>kg</b>	<b>100%</b>	



**Figure 2:** Material Composition Overview with packaging

The declared unit is 1 unit of DEVIcell™ LowCarbon with packaging. Mass of the declared unit is 1,60 kg.

### Data quality

Data quality of the selected datasets is generally assessed as good and very good in terms of geographical, time and technology representativeness and applicability. Background data is from LCA for Experts database version 2024.2. Data for this LCA, collected during the period 1.1.2024 – 31.12.2024.

### Allocation and cut-off criteria

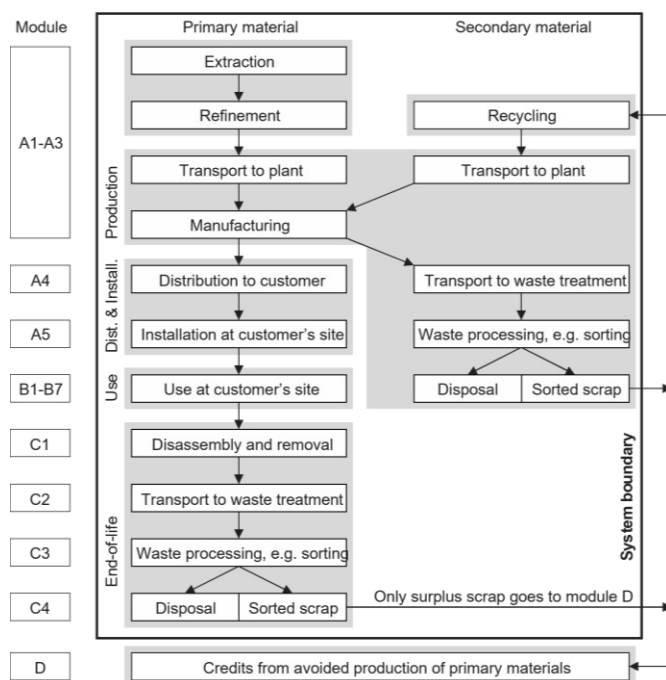
The allocation is made in accordance with the provisions of EN 15804+A2. All major raw materials and all the essential energy are included. All hazardous materials and substances are considered in the inventory. Data sets within the system boundary are complete and fulfil the criteria for the exclusion of inputs and output criteria. No known material or energy flows were ignored, including those which fell below the limit of 1%. Accordingly, the total sum of input flows ignored is certainly less than 5% of the energy and mass applied.

Due to its low mass (0,008 kg per unit) and specific material unavailability in the LCA software database, glue is excluded from the study due to the cut-off criteria.

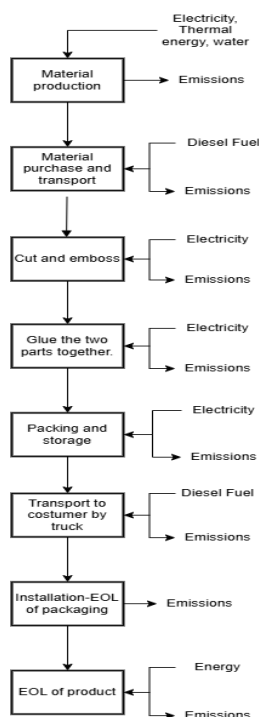
## Overview of LCA study

### System boundaries

The results in this EPD are split into life cycle modules following EN 15804 (Figure 1): production (A1-A3), distribution (A4), installation (A5) and the end of the product's life (C1-C4). Module D represents environmental benefits and loads that occur beyond the system boundary (i.e., in future products).



**Figure 4:** Modular structure used in this EPD (following EN 15804+A2)



**Figure 5:** Process flow diagram

## Overview of LCA study

Production steps (A1-A3):

### 1. Order Handling

- Ensure that order specifications and agreements are correct.

### 2. Material - Purchase and logistic

- Material: Coil 1040x0.8mm alu 1050.

### 3. Cut and Emboss

- The coil is straightened, and the plate is cut and pressed.

### 4. Packing (Semi-Finished Products)

- Final inspection and packing of aluminum sheet on a pallet.

### 5. Completion Registration (Semi-Finished)

- Finished items are moved to storage.

### 6. Get Semi-Finished Products

- Retrieve aluminum and polystyrene sheets from stock.

### 7. Glue the Two Parts Together

- Glue aluminum and polystyrene sheets together using a glue robot.

### 8. Pack the Finished Parts

- Pack the finished DEVlcell™ LowCarbon plates according to the packaging instructions.

### 9. Completion Registration (Finished)

- Finished items are moved to storage.

## Product and packaging manufacture (A1-A3)

Final manufacturing occurs at internal Danfoss facility in Denmark. The raw material is sourced from Europe. The facility is certified according to ISO 9001. Where waste generated on-site is recyclable, it is separated and recycled. For further information, [see here](#). The manufacturing plant also uses GOs, for its electricity consumption (Wind powered electricity), the electricity consumption per unit was measured on site.

**Table 5:** Biogenic carbon content in product & packaging

	Total (excluding recycling)
Biogenic carbon content in product [kg]	4,30E-02
Biogenic carbon content in packaging [kg]	8,06E-02

Note: 1 kg biogenic carbon is equivalent to 44/12 kg of CO<sub>2</sub>.

## Shipping and installation (A4-A5)



## Overview of LCA study

---

The intended market for DEVlcell™ LowCarbon is Norway. The assembly factory is in Horsens, Denmark, so 937 km by truck was used to represent the distance between the factory and the final customer in Oslo Norway.

Module A5 includes disposal of packaging materials only, the benefits from e.g., energy recovered after plastic incineration are allocated to module D. The product is assumed to be installed by hand and there is no loss of product during installation. Energy use in handheld tools during installation is not included as it falls under the cut-off criteria.

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

The following end-of-life procedure has been applied:

- Manual dismantling is used to separate recyclable bulk materials, e.g. bulk metals and plastics.
- Shredding is used for the remaining parts, such as printed circuit board assemblies.
- Ferrous metals, non-ferrous metals and bulk plastics are recovered through recycling.
- The remaining materials go to either energy recovery or landfill.

In line with EN 15804+A2, only the 'net scrap' (i.e., the leftover recyclable materials remaining after inputs of recycled content required in the manufacturing phase are first satisfied) is used to calculate the benefits and loads beyond the system boundary (Module D).

The products do not contain any of the substances of very high concern (SVHC) regulated by the Regulation (EC) No 1907/2006 (REACH) or the Regulation No 1272/2008 of the European Parliament.

For this EPD an average scenario with 50% of the product sent to recycling % 50% of the product sent to landfill (C3, C4, D) was used.

This scenario is designed to represent an average end-of-life scenario.

For the EPD this average scenario was chosen as it is assumed that it represents the majority of cases on average.

1. Recycling scenario with 100% of the product sent to recycling at the end-of-life, excluding fractions that cannot be recycled or incinerated (e.g., glass reinforcing in glass-filled plastics) and are sent to landfill.

This scenario illustrates best case performance. It assumes a 100% collection rate and best available recycling technologies. Under this scenario electrical cables, and all metals, flat glass and unreinforced plastics found within the body and chassis of the product are recycled. Printed circuit board assemblies are incinerated, and the copper and precious metals (gold, silver, palladium, and platinum) are recycled.

2. Landfill scenario with 100% of the product sent to landfill.

This scenario assumes that the whole product, including its packaging, is landfilled. It is designed to represent a poor end of-life-route where valuable resources are lost.

### Benefits and loads beyond the system boundary (D)

Module D considers the net benefit of recycling (including energy recovery) of materials in the product and packaging, taking account of losses in the recycling process and the recycled material used in the production of the product. Module D covers the two end-of-life scenarios, as described above. It does

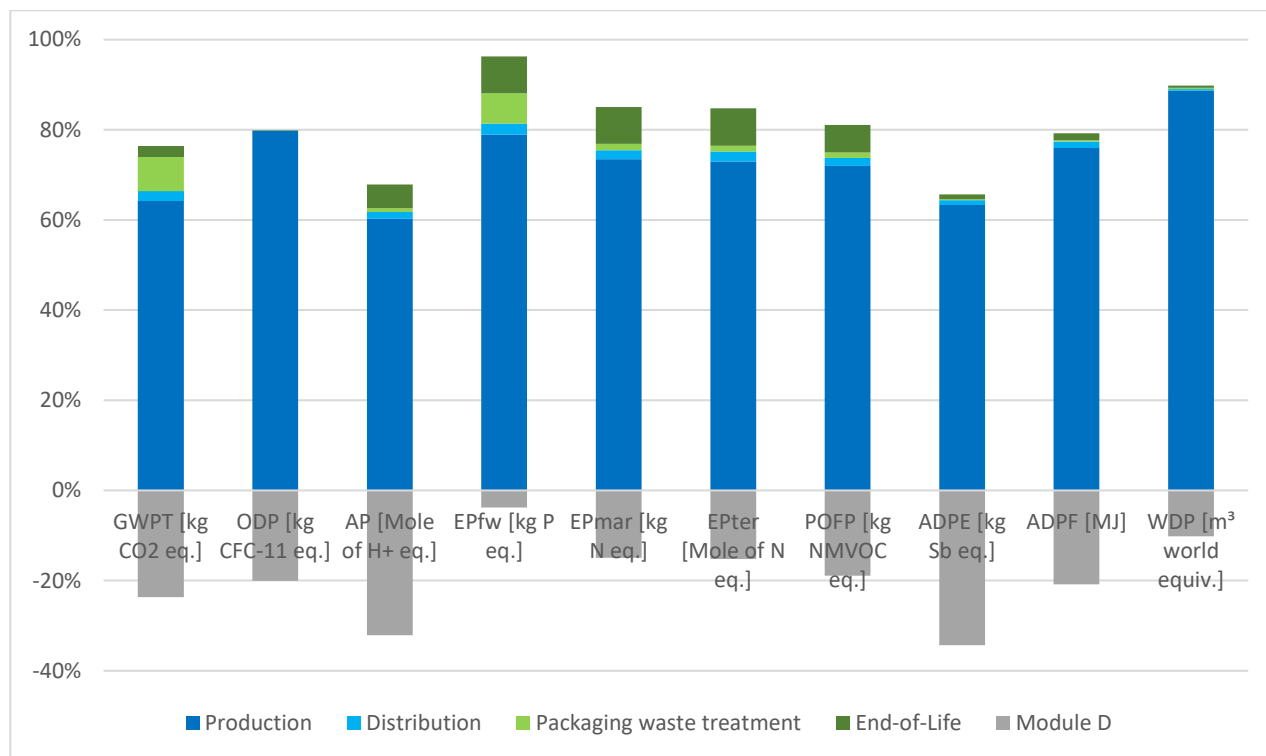
## Overview of LCA study

---

not cover energy recovery from incineration since the process used in LCA for Experts has an efficiency below 60%. Therefore, the impacts of this process are reported in module C4 and no benefits are claimed in module D.

## Environmental performance

This section presents the environmental performance of 1 DEVlcell™ LowCarbon with packaging. Figure 5 presents the environmental impact of 1 unit of DEVlcell™ LowCarbon with packaging across a number of environmental impact categories (following EN 15804+A2:2019) per life cycle stage, over its full life cycle, including Global Warming Potential.



**Figure 5:** Breakdown of environmental impacts by life cycle stages (see Table 6 for descriptions of environmental impact indicators).

## Environmental performance

**Table 6:** Environmental impact indicators per declared unit

	Production	Distribution	Packaging waste treatment	End-of-Life				
Life cycle stages based on EN 15804+A2	A1-A3	A4	A5	C1	C2	C3	C4	D
Description Environmental Impact Indicators	Manufacture of the product from 'cradle-to-gate'	Transport of the product to the customer	Installation of the product and disposal of used packaging	Deinstallation of the product from the site	Transport of the product to waste treatment	Processing waste for recycling	Disposal of waste that cannot be recycled (through landfill and incineration)	Potential benefits and loads beyond the system boundary due to reuse, recycling, and energy recovery
GWPT [kg CO <sub>2</sub> eq.]	4,02E+00	1,35E-01	4,77E-01	0,00E00	1,34E-02	1,07E-01	2,70E-02	-1,48E+00
GWPF [kg CO <sub>2</sub> eq.]	4,47E+00	1,33E-01	2,36E-02	0,00E00	1,34E-02	1,05E-01	2,69E-02	-1,48E+00
GWPB [kg CO <sub>2</sub> eq.]	-4,53E-01	0,00E+00	4,53E-01	0,00E00	0,00E+00	0,00E+00	0,00E+00	-0,00E+00
GWPLULUC [kg CO <sub>2</sub> eq.]	7,61E-03	2,20E-03	2,43E-05	0,00E00	3,27E-07	1,72E-03	8,74E-05	-2,40E-04
ODP [kg CFC-11 eq.]	4,26E-11	1,93E-14	1,90E-14	0,00E00	1,58E-18	1,51E-14	4,51E-14	-1,07E-11
AP [Mole of H <sup>+</sup> eq.]	9,67E-03	2,39E-04	1,34E-04	0,00E00	1,89E-05	6,54E-04	1,76E-04	-5,15E-03
EPfw [kg P eq.]	1,86E-05	5,60E-07	1,59E-06	0,00E00	2,93E-09	4,37E-07	1,48E-06	-8,85E-07
EPmar [kg N eq.]	3,54E-03	9,64E-05	6,86E-05	0,00E00	7,35E-06	3,22E-04	6,34E-05	-7,20E-04
EPter [Mole of N eq.]	3,77E-02	1,12E-03	6,55E-04	0,00E00	8,27E-05	3,57E-03	6,67E-04	-7,85E-03
POFP [kg NMVOC eq.]	9,52E-03	2,35E-04	1,64E-04	0,00E00	1,75E-05	6,23E-04	1,61E-04	-2,51E-03
ADPE [kg Sb eq.]	6,71E-07	1,14E-08	2,52E-09	0,00E00	4,81E-10	8,92E-09	1,41E-09	-3,64E-07
ADPF [MJ]	9,35E+01	1,73E+00	3,32E-01	0,00E00	1,95E-01	1,35E+00	3,80E-01	-2,56E+01
WDP [m <sup>3</sup> world equiv.]	5,59E-01	2,03E-03	1,62E-03	0,00E00	2,28E-05	1,59E-03	1,89E-03	-6,40E-02

**Table 7:** GWP-GHG indicator

## Environmental performance

	Production	Distribution	Packaging waste treatment	End-of-Life				
Life cycle stages based on EN 15804+A2	A1-A3	A4	A5	C1	C2	C3	C4	D
Description	Manufacture of the product from 'cradle-to-gate'	Transport of the product to the customer	Installation of the product and disposal of used packaging	Deinstallation of the product from the site	Transport of the product to waste treatment	Processing waste for recycling	Disposal of waste that cannot be recycled (through landfill and incineration)	Potential benefits and loads beyond the system boundary due to reuse, recycling, and energy recovery
Environmental Impact Indicators								
GWP-GHG [kg CO <sub>2</sub> eq.]	4,48E+00	1,35E-01	2,36E-02	0,00E+00	1,34E-02	1,07E-01	2,70E-02	-1,48E+00

How to read scientific numbers:

e.g.  $2,05E02 = 2,05 \times 10^2 = 205$

$2,04E-01 = 2,04 \times 10^{-1} = 0,204$

## Environmental performance

**Table 7:** Environmental impact indicator descriptions

Acronym	Unit	Indicator
GWPT	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – total
GWPF	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – fossil
GWPB	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – biogenic
GWPLULUC	kg CO <sub>2</sub> eq.	Carbon footprint (Global Warming Potential) – land use and land use change
ODP	kg CFC-11 eq.	Depletion potential of the stratospheric ozone layer
AP	Mole H <sup>+</sup> eq.	Acidification potential
EPfw	kg P eq.	Eutrophication potential – aquatic freshwater
EPmar	kg N eq.	Eutrophication potential – aquatic marine
EPter	Mole of N eq.	Eutrophication potential – terrestrial
POFP	kg NMVOC eq.	Summer smog (photochemical ozone formation potential)
ADPE*	kg Sb eq.	Depletion of abiotic resources – minerals and metals
ADPF*	MJ	Depletion of abiotic resources – fossil fuels
WDP*	m <sup>3</sup> world eq.	Water deprivation potential (deprivation-weighted water consumption)

Results for module A1-A3 are specific to the product. All results from module A4 onwards should be considered as scenarios that represent one possible outcome. The true environmental performance of the product will depend on actual use.

The results in this section are relative expressions only and do not predict actual impacts, the exceeding of thresholds, safety margins, or risks. EPDs from others may not be comparable.

### Carbon footprint

The total carbon footprint (GWPT), cradle-to-grave, of the product is 4,78E+00 kg CO<sub>2</sub>-eq (A1-C4). The carbon footprint (GWPT) of production of this product, cradle-to-gate, is 4,02E+00 kg CO<sub>2</sub>-eq (A1-A3).

## Environmental performance

**Table 8:** Resource use per declared unit

	A1-A3	A4	A5	C1	C2	C3	C4	D
PERE [MJ]	3,82E+01	1,49E-01	2,24E-02	0,00E00	6,43E-04	1,16E-01	3,81E-02	-8,90E+00
PERM [MJ]	1,50E+00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00
PERT [MJ]	3,97E+01	1,49E-01	2,24E-02	0,00E00	6,43E-04	1,16E-01	3,81E-02	-8,90E+00
PENRE [MJ]	8,31E+01	1,73E+00	3,32E-01	0,00E00	1,95E-01	1,35E+00	3,80E-01	-2,56E+01
PENRM [MJ]	1,04E+01	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00
PENRT [MJ]	9,35E+01	1,73E+00	3,32E-01	0,00E00	1,95E-01	1,35E+00	3,80E-01	-2,56E+01
SM [kg]	1,63E-01	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00
RSF [MJ]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00
NRSF [MJ]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00
FW [m3]	2,71E-02	1,66E-04	5,08E-05	0,00E00	1,03E-06	1,29E-04	5,78E-05	-1,64E-02

**Table 9:** Resource use indicator descriptions

Acronym	Unit	Indicator
PERE	MJ	Use of renewable primary energy excluding renewable primary energy resources used as raw materials
PERM	MJ	Use of renewable primary energy resources used as raw materials
PERT	MJ	Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials)
PENRE	MJ	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials
PENRM	MJ	Use of non-renewable primary energy resources used as raw materials
PENRT	MJ	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials)
SM	kg	Use of secondary material
RSF	MJ	Use of renewable secondary fuels
NRSF	MJ	Use of non-renewable secondary fuels
FW	m <sup>3</sup>	Net use of fresh water

## Environmental performance

**Table 10:** Waste categories and output flows per declared unit

	A1-A3	A4	A5	C1	C2	C3	C4	D
HWD [kg]	1,54E-07	6,62E-11	5,12E-11	0,00E00	1,34E-12	5,17E-11	5,67E-11	7,25E-09
NHWD [kg]	2,34E-01	2,82E-04	1,14E-01	0,00E00	1,95E-05	2,20E-04	9,42E-01	-3,38E-01
RWD [kg]	5,91E-03	3,15E-06	2,05E-06	0,00E00	2,09E-07	2,46E-06	2,78E-06	-2,07E-03
CRU [kg]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00	0,00E+00	0,00E+00
MFR [kg]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00	4,60E-01	0,00E+00
MER [kg]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00	0,00E+00	0,00E+00
EEE [MJ]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00	0,00E+00	0,00E+00
EET [MJ]	0,00E00	0,00E00	0,00E00	0,00E00	0,00E00	0,00E+00	0,00E+00	0,00E+00

**Table 11:** Waste category and output flow descriptions

Acronym	Unit	Indicator
HWD	kg	Hazardous waste disposed
NHWD	kg	Non-hazardous waste disposed
RWD	kg	Radioactive waste disposed
CRU	kg	Components for reuse
MFR	kg	Materials for recycling
MER	kg	Materials for energy recovery
EEE	MJ	Exported energy (electrical)
EET	MJ	Exported energy (thermal)



## Environmental performance

**Table 12:** Additional indicators\*

	A1-A3	A4	A5	C1	C2	C3	C4	D
PM [Disease incidences]	8,52E-08	2,14E-09	9,68E-10	0,00E00	1,12E-10	4,35E-09	1,73E-09	-8,20E-08
IRP [kBq U235 eq.]	9,63E-01	4,56E-04	2,66E-04	0,00E00	2,96E-05	3,57E-04	3,49E-04	-4,20E-01
ETPfw [CTUe]	3,49E+01	1,28E+00	2,85E-01	0,00E00	1,43E-01	1,00E+00	3,14E-01	-8,35E+00
HTPc [CTUh]	1,29E-09	2,59E-11	5,19E-12	0,00E00	2,63E-12	2,03E-11	5,91E-12	-4,28E-10
HTPnc [CTUh]	3,52E-08	1,16E-09	2,65E-10	0,00E00	8,60E-11	9,09E-10	2,33E-10	-1,06E-08
SQP [Pt]	5,27E+01	8,50E-01	5,47E-02	0,00E00	4,99E-04	6,64E-01	5,54E-02	-5,30E-01

**Table 13:** Optional indicator descriptions

Acronym	Unit	Indicator
PM	Disease incidence	Potential incidence of disease due to particulate matter emissions
IRP**	kBq U235 eq.	Potential human exposure efficiency relative to U235
ETPfw*	CTUe	Potential Comparative Toxic Unit for ecosystems (fresh water)
HTPc*	CTUh	Potential Comparative Toxic Unit for humans (cancer)
HTPnc*	CTUh	Potential Comparative Toxic Unit for humans (non-cancer)
SQP*	Dimensionless	Potential soil quality index

\*Disclaimer for ADPE, ADPF, WDP, ETPfw, HTPc, HTPnc, 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 the indicator.

\*\*Disclaimer for ionizing radiation: 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

## Annex 1

---

As stated, this EPD covers 3 DEVlcell™ LowCarbon product codes, for different amount of DEVlcell™ LowCarbon plates:

- 140F1130 (5m<sup>2</sup> 10pcs)
- 140F1131 (2m<sup>2</sup> 4pcs)
- 140F1132 (50m<sup>2</sup> 100pcs)

To calculate the environmental indicators from this EPD for a specific product code, just multiply the results for a desired environmental indicator and LCA stage with the amount of pieces in each product code.

Example for 140F1130:

GWPT (A1-A3) for 1 plate: 4,02E+00 kg CO<sub>2</sub>-eq

GWPT (A1-A3) for 1 plate: 4,78E+00 kg CO<sub>2</sub>-eq

GWPT (A1-A3) for code 10 plates: 10 x 4,02E+00 kg CO<sub>2</sub>-eq = 4,02E+01 kg CO<sub>2</sub>-eq

GWPT (A1-A3) for code 10 plates: 10 x 4,78E+00 kg CO<sub>2</sub>-eq = 4,78E+01 kg CO<sub>2</sub>-eq

## Version History

---

Original Version of the EPD, 2025-05-27

Revision 1, 2025-08-11,

Differences versus the previously published version: Editorial changes, the product name was updated .

## References

---

CEN (2019). *EN 15804:2012+A2:2019: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products*. Brussels, Belgium: European Committee for Standardization.

*PCR 2019:14 construction products (EN 15804+A2) (1.3.4)*

Danfoss (2022). *Danfoss Product Category Rules: Environmental Product Declarations for Danfoss Products*. Nordborg, Denmark: Danfoss A/S.

ISO (2006a). *ISO 14025:2006: Environmental labels and declarations – Type III environmental declarations – Principles and procedures*. Geneva, Switzerland: International Organization for Standardization.

ISO (2006b). *ISO 14040:2006: Environmental management – Life cycle assessment – Principles and framework*. Geneva, Switzerland: International Organization for Standardization.

ISO (2006c). *ISO 14044:2006: Environmental management – Life cycle assessment – Requirements and guidelines*. Geneva, Switzerland: International Organization for Standardization.

## Danfoss Climate Solutions A/S

---

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material. Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product. All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.

---