

# Environmental Product Declaration



In accordance with ISO 14025 and EN 15804:2012+A2:2019 for:



High performance architectural panels by Formica Group

from

**Nordic Façade Solutions NFS, Formica Group**



Programme:

The International EPD® System, [www.environdec.com](http://www.environdec.com)

Programme operator:

EPD International AB

EPD registration number:

S-P-05864

Publication date:

2022-04-06

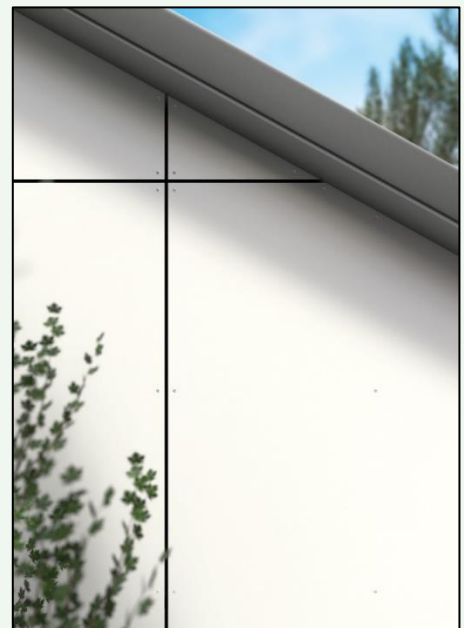
Revision date:

2022-08-15

Valid until:

2027-04-06

*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](http://www.environdec.com)*



## General information

### 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>

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: <i>IVL Swedish Environmental Research Institute (martin.erlandsson@ivl.se) and Secretariat of the International EPD® System</i>
Independent third-party verification of the declaration and data, according to ISO 14025:2006:  <input type="checkbox"/> EPD process certification <input checked="" type="checkbox"/> EPD verification
Third party verifier: Ugo Pretato, Approved individual verifier, Studio Fieschi & Soci C.so Vittorio Emanuele II, 18, 10123, Torino, Italy. <a href="http://www.studiofieschi.it">www.studiofieschi.it</a> Approved by: The International EPD® System
Procedure for follow-up of data during EPD validity involves third party verifier:  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

### EPD information

Differences versus previous versions:

- 2022-04-06, version 1  
Editorial changes to product description and reference service life.
- 2022-07-13, version 2  
Editorial changes to company information

## Company information

Owner of the EPD: Nordic Façade Solutions Oy, Tehtaantie 12, 35990 Kolho, Finland

Contact: Irmak Akal, i.akal@nemho.com

Description of the organisation: Nordic Facade Solutions is a subsidiary of Formica Limited and incorporates the exterior brands of Formica Group and Trespa International – all under one roof. NFS deliver a comprehensive service, to first understand the client's needs and then to provide the best cladding solution from the VIVIX+® by Formica Group, Trespa® Meteon® and Pura® NFC by Trespa ranges.

Nordic Facade Solutions have local production and warehousing facilities and a team of local sales and customer service representatives to support clients through their projects.

Description of the manufacturing company:

### **Formica Group**

**The first and original** Formica Group invented high pressure laminates in 1913. Pioneers by definition, our iconic Formica® brand represents the quintessence of laminates.

### **Inspired by life**

Laminates entered people's daily lives and made modernity dreams come true and accessible. Similarly, the demand for multifunctional, practical and durable designed surfaces is a constant inspiration for our Formica® Collections. At rest, at leisure, at work.

### **Evolving with the times**

The way people live, work and play continuously changes. Formica Group keep pace with these evolving times through constant innovation, reflecting global trends and responding to ever changing needs and habits.

The true original, still surfacing the world.

Product-related or management system-related certifications: The Formica plant situated in Kolho, Finland is certified according to ISO 14001 standards.

Name and location of production site(s): Kolho (Finland)

## Product information

Product name: Vivix+ HPL panels 6 mm & 8 mm

Product identification: Compact laminate panels for exterior walls or ceiling finishes

Product description: Vivix+ panels are decorative high-pressure compact laminate panels (high-pressure laminates, HPL) for exterior walls or ceiling finishes according to EN438:6-2016.

Vivix+ products comprise individual layers of natural fibres, treated with thermosetting resins and pressed under high pressure. The panels are attributed with an integrated decorative layer on one side or both sides of the panels. They are available in number of color, décor range and thicknesses (6 mm and 8 mm). The manufacturing plants involved in the production process are Trespa in the Netherlands (sister company of Formica) and Formica in Finland.

UN CPC code: not available.

## LCA information

Declared unit: 1 squared meter of finished panel plus primary packaging

Reference service life: 50 years

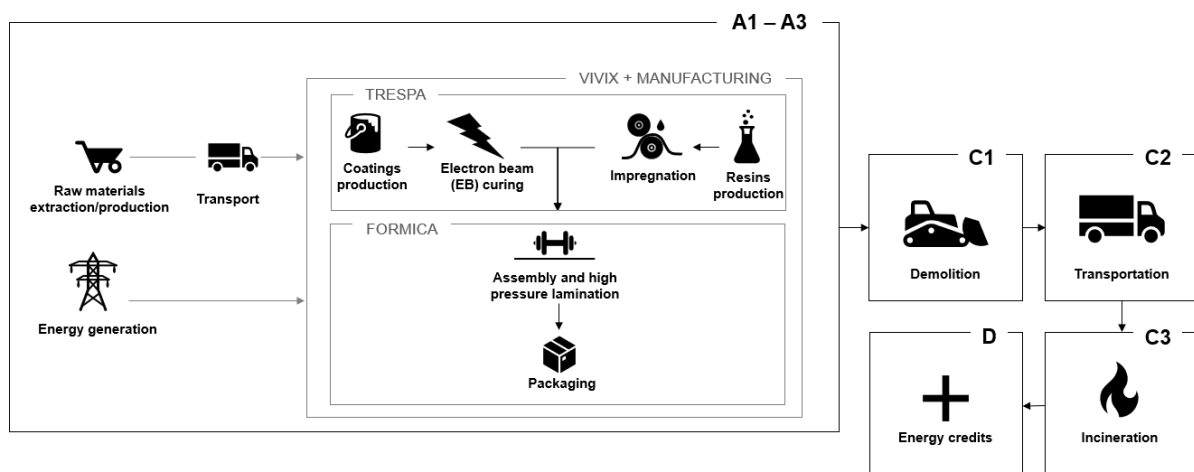
Time representativeness: 2021 production year

Database(s) and LCA software used: The LCA study was performed with the support of the Simapro LCA software (version 9.3) and Ecoinvent 3.8 ad Carbon Minds database

### Description of system boundaries:

[a] Cradle to gate with modules C1–C4 and module D (A1–A3 + C + D);

### System diagram:



*All the semi-finished materials are produced at Trespa and shipped to Formica Kolho in Finland to be pressed. Trespa is Formica's sister company.*

### More information:

Name and contact information of LCA practitioner: Irmak Akal i.akal@nemho.com, Marius Bakken Støle m.b.stole@nemho.com

Name of the organisation carrying out the underlying study: Nordic Facade Solutions NFS, Formica Group

Modelling of electricity in module A3: according to the specific electricity mix purchased by Formica Kolho, which corresponds to 100% renewable energy, specifically from hydropower. The impact on climate change of 1 kWh is 1.02E-02 kgCO<sub>2eq</sub>.

Main assumptions adopted in the study:

- Secondary data are taken from the database Ecoinvent v 3.8 and Carbon Minds. In the selection of secondary data, priority is given to more representative data in terms of temporal coverage, geographical coverage, and production technology.
- When the supplier of a raw material is known, specific transport distances from the supplier to the factory are considered in the study, otherwise transport is modelled according to average transport distances reflecting the market mix.
- The transport of packaging materials is excluded from the system boundary.

End of life scenario for Vivix+ panels:

Vivix+ panels are commonly used as secondary material for energy recovery, therefore it is assumed that 100% of the HPL panel at the end of life is sent to incineration. Loads from material incineration (C3) and resulted energy credits (module D) are declared. Energy credits are calculated considering a lower heating value (LHV) of panels equal to 19 MJ/kg as declared by ICDLI (2015) and an efficiency of incineration equal to 60%.

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

	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	ND	ND	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	GLO	GLO	EU	ND	ND	ND	ND	ND	ND	ND	ND	ND	EU	EU	EU	EU	EU
Specific data used	>90%			ND	ND	ND	- ND	ND	ND -	ND -	ND -	ND -	-	-	-	-	-

***X= module declared***

***ND= module not declared***

## Content information

**TABLE 1: AVERAGE COMPOSITION OF VIVIX+ HPL PANELS, 6MM THICK REFERRED TO 1 M<sup>2</sup>**

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Phenolic resin	3,24-3,37	0%	0%
Kraft paper	5,02-5,15	0%	100%
Coating chemicals	0,23-0,24	0%	0%
Décor paper	0,16-0,17	0%	100%
TOTAL	8,79	0%	59-60,4%

**TABLE 2: AVERAGE COMPOSITION OF VIVIX+ HPL PANELS, 8MM THICK REFERRED TO 1 M<sup>2</sup>**

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Phenolic resin	4,36-4,53	0%	0%
Kraft paper	6,80-6,96	0%	100%
Coating chemicals	0,20-0,24	0%	0%
Décor paper	0,16-0,17	0%	100%
TOTAL	11,72	0%	59,4-60,8%

**TABLE 3: AVERAGE PACKAGING FOR VIVIX+ HPL PANELS, 6MM THICK REFERRED TO 1 M<sup>2</sup>**

Packaging materials	Weight, kg	Weight-% (versus the total packaging)
PP foil	0,05	6,7%
EUR pallets	0,74	90,2%
Corner protector	0,02	2,4%
Package bands	0,01	1,2%
Pallet labels	0,0003	0,04%
TOTAL	0,8203	100%

**TABLE 4: AVERAGE PACKAGING FOR VIVIX+ HPL PANELS, 8MM THICK REFERRED TO 1 M<sup>2</sup>**

Packaging materials	Weight, kg	Weight-% (versus the total packaging)
PP foil	0,06	5,5%
EUR pallets	0,98	90,7%
Corner protector	0,03	2,7%
Package bands	0,01	0,9%
Pallet labels	0,0005	0,05%
TOTAL	1,08	100%

**Dangerous substances from the candidate list of SVHC for Authorisation**

Vivix+ panels do not contain substances listed on the candidate list of Substances of Very High Concern, as published on the ECHA website, in concentrations exceeding 0.1 percentage by mass.



## Environmental Information – 6 mm panels

### Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	2,67E+01	3,09E-01	7,91E-02	7,24E+00	0,00E+00	-8,79E+00
GWP-biogenic	kg CO <sub>2</sub> eq.	-1,09E+01	0,00E+00	0,00E+00	1,09E+01	0,00E+00	0,00E+00
GWP-luluc	kg CO <sub>2</sub> eq.	3,66E-02	7,29E-04	2,87E-05	7,18E-05	0,00E+00	-9,07E-03
GWP-total	kg CO <sub>2</sub> eq.	1,58E+01	3,10E-01	7,91E-02	1,81E+01	0,00E+00	-8,80E+00
ODP	kg CFC 11 eq.	7,23E-06	1,53E-08	1,90E-08	2,21E-08	0,00E+00	-7,22E-07
AP	mol H <sup>+</sup> eq.	1,25E-01	1,67E-03	4,02E-04	3,86E-03	0,00E+00	-2,54E-02
EP-freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq.	2,99E-02	9,49E-04	1,52E-05	1,65E-04	0,00E+00	-1,16E-02
EP-freshwater	kg P eq.	9,75E-03	3,09E-04	4,97E-06	5,38E-05	0,00E+00	-3,77E-03
EP-marine	kg N eq.	2,78E-02	2,88E-04	1,38E-04	2,23E-03	0,00E+00	-4,47E-03
EP-terrestrial	mol N eq.	2,84E-01	2,51E-03	1,51E-03	2,03E-02	0,00E+00	-4,09E-02
POCP	kg NMVOC eq.	9,00E-02	6,86E-04	4,51E-04	5,11E-03	0,00E+00	-1,33E-02
ADP-minerals&metals*	kg Sb eq.	1,87E-04	7,25E-07	1,83E-07	5,77E-07	0,00E+00	-1,48E-05
ADP-fossil*	MJ	4,74E+02	6,58E+00	1,24E+00	1,33E+00	0,00E+00	-1,54E+02
WDP	m <sup>3</sup> eq.	8,18E+00	7,28E-02	4,28E-03	4,65E-02	0,00E+00	-9,11E-01
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						

\* 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.

**TABLE 5: POTENTIAL ENVIRONMENTAL IMPACT – ADDITIONAL MANDATORY AND VOLUNTARY INDICATORS**

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-GHG <sup>1</sup>	kg CO <sub>2</sub> eq.	2,64E+01	3,07E-01	7,85E-02	7,23E+00	0,00E+00	-8,61E+00

*Additional voluntary indicators have been calculated in the background report.*

## Use of resources

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
PERE	MJ	1,76E+02	1,14E+00	1,58E-02	7,68E-02	0,00E+00	- 1,38E+01
PERM	MJ	7,86E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,55E+02	1,14E+00	1,58E-02	7,68E-02	0,00E+00	- 1,38E+01
PENRE	MJ	2,82E+02	6,58E+00	1,24E+00	1,33E+00	0,00E+00	- 1,54E+02
PENRM	MJ.	1,93E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	4,74E+02	6,58E+00	1,24E+00	1,33E+00	0,00E+00	- 1,54E+02
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
FW	m <sup>3</sup>	2,12E-01	5,49E-03	1,48E-04	5,03E-03	0,00E+00	-6,70E-02
Acronyms	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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water						

<sup>1</sup> The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

## Waste production and output flows

### Waste production

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,00E-01	9,20E-04	6,85E-05	4,60E-01	0,00E+00	-1,17E-02
Non-hazardous waste disposed	kg	7,50E+00	2,18E-02	1,16E-01	1,91E-01	0,00E+00	-3,00E-01
Radioactive waste disposed	kg	2,13E-03	4,82E-05	8,41E-06	3,83E-06	0,00E+00	-5,92E-04

### Output flows

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	8,79E+00	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	3,31E+01	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	6,72E+01	0,00E+00	0,00E+00

### Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	2,95E+00
Biogenic carbon content in packaging	kg C	Not considered

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

## Environmental Information – 8 mm panels

### Potential environmental impact – mandatory indicators according to EN 15804

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-fossil	kg CO <sub>2</sub> eq.	3,56E+01	4,12E-01	1,05E-01	9,66E+00	0,00E+00	-1,17E+01
GWP-biogenic	kg CO <sub>2</sub> eq.	-1,46E+01	0,00E+00	0,00E+00	1,46E+01	0,00E+00	0,00E+00
GWP-luluc	kg CO <sub>2</sub> eq.	4,88E-02	9,73E-04	3,82E-05	9,57E-05	0,00E+00	-1,21E-02
GWP-total	kg CO <sub>2</sub> eq.	2,11E+01	4,13E-01	1,06E-01	2,41E+01	0,00E+00	-1,17E+01
ODP	kg CFC 11 eq.	9,64E-06	2,04E-08	2,54E-08	2,95E-08	0,00E+00	-9,63E-07
AP	mol H <sup>+</sup> eq.	1,66E-01	2,22E-03	5,36E-04	5,14E-03	0,00E+00	-3,39E-02
EP-freshwater	kg PO <sub>4</sub> <sup>3-</sup> eq.	3,99E-02	1,27E-03	2,03E-05	2,20E-04	0,00E+00	-1,54E-02
EP-freshwater	kg P eq.	1,30E-02	4,12E-04	6,62E-06	7,18E-05	0,00E+00	-5,03E-03
EP-marine	kg N eq.	3,71E-02	3,84E-04	1,84E-04	2,98E-03	0,00E+00	-5,95E-03
EP-terrestrial	mol N eq.	3,78E-01	3,35E-03	2,01E-03	2,71E-02	0,00E+00	-5,45E-02
POCP	kg NMVOC eq.	1,20E-01	9,14E-04	6,01E-04	6,82E-03	0,00E+00	-1,78E-02
ADP-minerals&metals*	kg Sb eq.	2,49E-04	9,67E-07	2,44E-07	7,70E-07	0,00E+00	-1,97E-05
ADP-fossil*	MJ	6,32E+02	8,77E+00	1,66E+00	1,77E+00	0,00E+00	-2,06E+02
WDP	m <sup>3</sup>	1,09E+01	9,71E-02	5,70E-03	6,20E-02	0,00E+00	-1,21E+00
Acronyms	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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption						

\* 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.

**TABLE 6: POTENTIAL ENVIRONMENTAL IMPACT – ADDITIONAL MANDATORY AND VOLUNTARY INDICATORS**

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
GWP-GHG <sup>2</sup>	kg CO <sub>2</sub> eq.	3,52E+01	4,09E-01	1,05E-01	9,65E+00	0,00E+00	-1,15E+01

*Additional voluntary indicators have been calculated in the background report.*

### Use of resources

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
PERE	MJ	2,35E+02	1,52E+00	2,11E-02	1,02E-01	0,00E+00	-1,84E+01
PERM	MJ	1,05E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	3,40E+02	1,52E+00	2,11E-02	1,02E-01	0,00E+00	-1,84E+01
PENRE	MJ	3,76E+02	8,77E+00	1,66E+00	1,77E+00	0,00E+00	-2,06E+02
PENRM	MJ.	2,57E+02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	6,32E+02	8,77E+00	1,66E+00	1,77E+00	0,00E+00	-2,06E+02
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
FW	m <sup>3</sup>	2,82E-01	7,32E-03	1,97E-04	6,71E-03	0,00E+00	-8,94E-02
Acronyms	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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water						

<sup>2</sup> The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

## Waste production and output flows

### Waste production

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Hazardous waste disposed	kg	1,34E-01	1,23E-03	9,13E-05	6,14E-01	0,00E+00	-1,56E-02
Non-hazardous waste disposed	kg	1,00E+01	2,91E-02	1,55E-01	2,54E-01	0,00E+00	-4,00E-01
Radioactive waste disposed	kg	2,85E-03	6,43E-05	1,12E-05	5,11E-06	0,00E+00	-7,89E-04

### Output flows

Results per functional or declared unit							
Indicator	Unit	Tot.A1-A3	C1	C2	C3	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Material for recycling	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Materials for energy recovery	kg	0,00E+00	0,00E+00	0,00E+00	1,17E+01	0,00E+00	0,00E+00
Exported energy, electricity	MJ	0,00E+00	0,00E+00	0,00E+00	4,41E+01	0,00E+00	0,00E+00
Exported energy, thermal	MJ	0,00E+00	0,00E+00	0,00E+00	8,95E+01	0,00E+00	0,00E+00

### Information on biogenic carbon content

Results per functional or declared unit		
BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	3,94E+00
Biogenic carbon content in packaging	kg C	Not considered

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

## Additional information

Reducing the carbon footprint are key parts of our overall sustainability policy and it is based on our core belief that it is the right thing to do. We are also convinced that reducing our overall environmental footprint is essential to the long-term success of our business and the environment around us. That is why sustainability is embedded in our business philosophy with the credo 'do no harm, do good, do better.'

At the core of our sustainability strategy is the principle that we should start with ourselves when we seek to improve the world: 'do no harm.' Our approach is straightforward: we measure our impact, select targets to reduce this impact and monitor and report on progress. To measure our impact, we use the Life Cycle Assessment (LCA) methodology.

The second element of our strategy is to look for opportunities that support the environment beyond the direct scope of our own manufacturing footprint: 'do good.' This includes creating highly durable products that have a long lifespan that limit the need for replacement. Additionally, we will develop projects that absorb or reduce carbon emissions that are not directly linked to our factories or product portfolio. We believe that addressing sustainability challenges will allow our company to continue to grow and 'do better' in the future. Investing in sustainability should – in the end – ensure that these efforts go beyond established regulatory requirements and the net effect of our efforts will positively impact the environment in which we operate.

Further details on our philosophy, approach and goals can be found in our position paper available online: <https://www.formica.com/en-gb/campaigns/sustainability>

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