



**Environmental  
Product  
Declaration**

According to EN15804+A2 (+indicators A1)



This declaration is for:  
**Bio-Tec 2 Pack Catalysed Epoxy**

Provided by:  
**Fleetwood Paints Ltd.**



program operator  
**Stichting MRPI®**  
publisher  
**Stichting MRPI®**  
[www.mrpi.nl](http://www.mrpi.nl)

MRPI® registration  
**1.1.00646.2024**  
date of first issue  
**02-08-2024**  
date of this issue  
**02-08-2024**  
expiry date  
**02-08-2029**





**COMPANY INFORMATION**



Fleetwood Paints Ltd.  
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www.fleetwood.ie

**PRODUCT**

Bio-Tec 2 Pack Catalysed Epoxy

**DECLARED UNIT/FUNCTIONAL UNIT**

1m<sup>2</sup> of painted surface

**DESCRIPTION OF PRODUCT**

Fleetwood Water-based Epoxy is a 2 pack epoxy coating system designed to cope with the demands of modern sanitary areas where the highest levels of aseptic conditions are required.

**VISUAL PRODUCT**



**MRPI® REGISTRATION**

1.1.00646.2024

**DATE OF ISSUE**

02-08-2024

**EXPIRY DATE**

02-08-2029

**SCOPE OF DECLARATION**

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, Eco Intelligence. The LCA study has been done by Liz Adams, Ecomatters B.V. The certificate is based on an LCA-dossier according to EN15804+A2 (+indicators A1). It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPD's of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

**MORE INFORMATION**

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**PROGRAM OPERATOR**

Stichting MRPI®  
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Amsterdam

Ing. L. L. Oosterveen MSc. MBA  
Managing Director MRPI

DEMONSTRATION OF VERIFICATION	
CEN standard EN15804 serves as the core PCR(a)	
Independent verification of the declaration and data according to EN15804+A2 (+indicators A1)	
internal:	external: x
Third party verifier: Gert-Jan Vroege, Eco Intelligence	
[a] PCR = Product Category Rules	



### DETAILED PRODUCT DESCRIPTION

Fleetwood Water-based Epoxy is a 2 pack epoxy coating system designed to cope with the demands of modern sanitary areas where the highest levels of aseptic conditions are required. Key benefits of the product are excellent durability, low odour, and flash rust resistance. It inhibits the growth of MRSA, E.Coli and other bacteria: Tested under Japanese JIS Z 2801:2000. The paint contains highly active silver ion bactericide technology. The coating gives excellent adhesion and superior abrasion resistance. Suitable for use where aggressive cleaning regimes are required. Suitable for high wood, plaster and masonry surfaces. Particularly appropriate for areas of high traffic or where cleaning regimes are harsh such as operating theatres, abattoirs or dairies.

#### Application method

The application is done by brush, roller or conventional spray.

#### Production process and conditions of delivery

Paints are produced to pre-determined formulations that are specific to each individual product. Raw materials are pre-weighed according to the percentage of each in the formulation. Pigment and fillers are dispersed in a solvent and then transferred to another mixing vessel and combined with binder. The amount and type of dispersion is product specific and depends on the type of finish required. Subsequently, colourants are added (if required) to generate the colour desired. Finally, the paint is adjusted to the correct viscosity, filtered and filled into the appropriate packaging container. All paint containers are transported from the production sites to the paint storage warehouse and finally to our customers.

#### Pack size

The products are packed in a packaging with a capacity of 1 and 5 litres.

Paint Characteristics		Unit
Waterborne / Solventborne	Waterborne	value
Interior wall / Exterior wall / Trim	Interior	value
Density	1,2	kg/L
VOC content	61	g pr Kg paint
Coverage	0,15	kg/m2
Number of layers	2	value
Lifetime	8	Years

Component (> 1%)	(%)
Pigment: Lightfast Pigments	confidential
Binder: Pure Acrylic Emulsion	confidential
Solvent: Water	confidential

### SCOPE AND TYPE

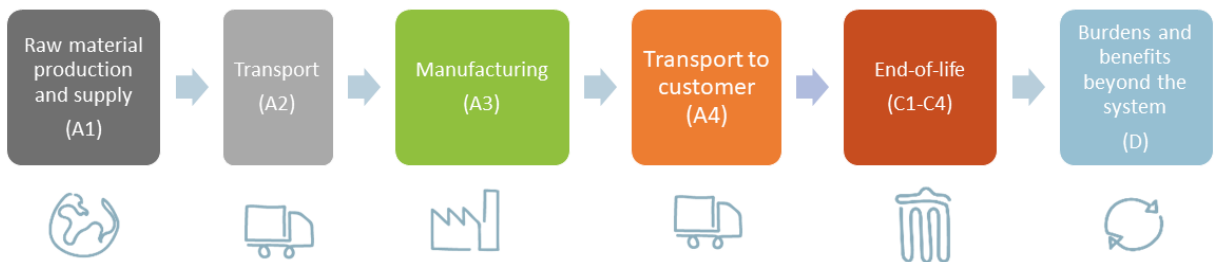
The type of this EPD is cradle-to-gate with options for a specific paint. All major steps from the extraction of natural resources to the final disposal of the product are included in the environmental performance of the manufacturing phase, except those that are not relevant to the environmental performance of the product. This declaration does not imply an indicator result of zero. This EPD is representative for products produced and sold in Ireland. The paint is produced in the Virginia, County Cavan manufacturing site in Ireland and the application market is also for customers within Ireland and the United Kingdom. Likewise, for the end-of-life, the fate of the paint product is described within an Irish and UK context.

The software Sphera LCA for Experts v. 10.8 is used to perform the LCA. The background databases used are:

- a)Raw materials LCI database for the European coatings and printing ink industries
- b)Ecoinvent 3.10 (2024)

The validity of this EPD is in correspondence with the specifications of the LCA project report.

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USER STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery – Recycling-potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
X= Modules Assessed ND= Not Declared																



**REPRESENTATIVENESS**

Not applicable as the EPD is specific for the product.

**ENVIRONMENT IMPACT per functional unit or declared unit (core indicators A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-total	kg CO <sub>2</sub> eq.	5,08 E-01	1,64 E-02	9,35 E-02	6,18 E-01	7,28 E-03	6,32 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,58 E-03	0,00 E+00	2,98 E-02	-1,05 E-02
GWP-fossil	kg CO <sub>2</sub> eq.	5,07 E-01	1,64 E-02	9,16 E-02	6,15 E-01	7,27 E-03	6,25 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,57 E-03	0,00 E+00	2,84 E-02	-1,04 E-02
GWP-biogenic	kg CO <sub>2</sub> eq.	1,35 E-03	8,14 E-06	1,80 E-03	3,16 E-03	4,37 E-06	6,48 E-04	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,33 E-06	0,00 E+00	1,37 E-03	-8,83 E-05
GWP-luluc)	kg CO <sub>2</sub> eq.	1,12 E-04	5,68 E-06	5,12 E-05	1,68 E-04	2,06 E-06	4,19 E-07	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,81 E-07	0,00 E+00	1,75 E-06	-6,90 E-06
ODP	kg CFC11 eq.	5,79 E-08	3,27 E-10	2,65 E-09	6,09 E-08	1,29 E-10	2,51 E-11	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	5,17 E-11	0,00 E+00	9,65 E-11	-5,49 E-10
AP	mol H+ eq.	4,16 E-03	6,29 E-05	2,09 E-04	4,43 E-03	1,97 E-05	9,07 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,31 E-06	0,00 E+00	2,25 E-05	-2,07 E-05
EP-freshwater	kg PO <sub>4</sub> eq.	1,13 E-04	1,10 E-06	1,49 E-05	1,29 E-04	4,24 E-07	1,40 E-07	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,75 E-07	0,00 E+00	3,17 E-07	-6,88 E-07
EP-marine	kg N eq.	6,40 E-04	2,05 E-05	5,00 E-05	7,10 E-04	8,63 E-06	4,64 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,84 E-06	0,00 E+00	8,75 E-06	-4,42 E-06
EP-terrestrial	mol N eq.	6,08 E-03	2,22 E-04	4,22 E-04	6,73 E-03	7,22 E-05	4,27 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,07 E-05	0,00 E+00	9,46 E-05	-4,70 E-05
POCP	kg NMVOC eq.	2,00 E-03	9,26 E-05	2,88 E-04	2,38 E-03	3,13 E-05	1,83 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,35 E-05	0,00 E+00	4,04 E-05	-2,06 E-05
ADP-minerals & metals	kg Sb eq.	1,27 E-06	4,35 E-08	4,22 E-07	1,74 E-06	1,99 E-08	2,87 E-09	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	6,95 E-09	0,00 E+00	6,66 E-09	-5,77 E-08
ADP-fossil	MJ, net calorific value	7,71 E+00	2,37 E-01	1,65 E+00	9,59 E+00	9,06 E-02	1,75 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,74 E-02	0,00 E+00	7,35 E-02	-1,66 E-01
WDP	m <sup>3</sup> world eq. Deprived	2,04 E+01	1,51 E-03	2,26 E-02	2,04 E+01	-7,27 E-04	-1,50 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,40 E-04	0,00 E+00	-2,96 E-02	-7,24 E-04

- GWP-total = Global 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 = Depletion potential of the stratospheric ozone layer
- AP = Acidification Potential, Accumulated Exceedence
- 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 Exceedence
- POCP = Formation potential of tropospheric ozone photochemical oxidants
- ADP-minerals&metals = Abiotic Depletion Potential for non-fossil resources [2]
- ADP-fossil = Abiotic Depletion for fossil resources potential [2]
- WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

Disclaimer [2]  
 - The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.



**ENVIRONMENT IMPACT per functional unit or declared unit (additional indicators A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PM	Disease incidence	5,23 E-08	1,24 E-09	1,50 E-09	5,50 E-08	3,77 E-10	1,08 E-10	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,97 E-10	0,00 E+00	5,03 E-10	-9,15 E-11
IRP	kBq U235 eq.	4,49 E-02	2,84 E-04	7,81 E-03	5,30 E-02	1,34 E-04	2,42 E-05	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	4,53 E-05	0,00 E+00	9,01 E-05	-2,84 E-04
ETP-fw	CTUe	4,64 E+01	5,58 E-02	3,82 E-01	4,69 E+01	2,60 E-02	8,07 E-01	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	8,86 E-03	0,00 E+00	1,15 E+01	-1,83 E-02
HTP-c	CTUh	1,09 E-09	1,01 E-10	2,80 E-10	1,47 E-09	3,86 E-11	6,22 E-11	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	1,60 E-11	0,00 E+00	2,21 E-11	-2,05 E-11
HTP-nc	CTUh	5,04 E-09	1,40 E-10	6,10 E-10	5,79 E-09	5,93 E-11	2,51 E-10	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	2,24 E-11	0,00 E+00	1,00 E-09	-6,52 E-11
SQP	----	1,07 E+00	2,34 E-01	3,00 E-01	1,61 E+00	5,51 E-02	2,02 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	3,75 E-02	0,00 E+00	1,73 E-01	-1,81 E-02

- PM = Potential incidence of disease due to PM emissions
- IRP = Potential Human exposure efficiency relative to U235 [1]
- ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
- HTP-c = Potential Comparative Toxic Unit for humans [2]
- HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
- SQP = Potential soil quality index [2]

Disclaimer [1]  
 - 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.

Disclaimer [2]  
 - The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

**OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)**

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
HWD	kg	0,00 E+00	0,00 E+00	7,54 E-03	7,54 E-03	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
NHWD	kg	0,00 E+00	0,00 E+00	9,32 E-03	9,32 E-03	0,00 E+00	3,71 E-02	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
RWD	kg	1,15 E-06	0,00 E+00	0,00 E+00	1,15 E-06	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
CRU	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
MFR	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
MER	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
EEE	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00
ETE	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00

- HWD = Hazardous Waste Disposed
- NHWD = Non Hazardous Waste Disposed
- RWD = Radioactive Waste Disposed
- CRU = Components for reuse
- MFR = Materials for recycling
- MER = Materials for energy recovery
- EEE = Exported Electrical Energy
- ETE = Exported Thermal Energy



### RESOURCE USE per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
PERE	MJ	1,80 E-01	3,73 E-03	1,24 E-01	3,08 E-01	1,71 E-03	3,45 E-04	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	5,94 E-04	0 E+00	1,16 E-03	-2,89 E-02
PERM	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0,00 E+00	0 E+00	0,00 E+00	0,00 E+00
PERT	MJ	1,80 E-01	3,73 E-03	1,24 E-01	3,08 E-01	1,71 E-03	3,45 E-04	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	5,94 E-04	0 E+00	1,16 E-03	-2,89 E-02
PENRE	MJ	7,71 E+00	2,37 E-01	1,65 E+00	9,59 E+00	9,06 E-02	1,75 E-02	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	3,74 E-02	0 E+00	7,35 E-02	-1,66 E-01
PENRM	MJ	7,92 E-04	1,24 E-05	1,70 E-05	8,21 E-04	3,86 E-06	1,15 E-06	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	1,95 E-06	0 E+00	6,41 E-06	-1,12 E-06
PENRT	MJ	7,71 E+00	2,37 E-01	1,65 E+00	9,59 E+00	9,06 E-02	1,75 E-02	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	3,75 E-02	0 E+00	7,35 E-02	-1,66 E-01
SM	kg	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0,00 E+00	0 E+00	0,00 E+00	0,00 E+00
RSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0,00 E+00	0 E+00	0,00 E+00	0,00 E+00
NRSF	MJ	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0,00 E+00	0 E+00	0,00 E+00	0,00 E+00
FW	m3	4,75 E-01	3,51 E-05	5,27 E-04	4,76 E-01	-1,69 E-05	-3,50 E-05	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	5,59 E-06	0 E+00	-6,89 E-04	-1,68 E-05

- PERE = Use of renewable energy excluding renewable primary energy resources
- PERM = Use of renewable energy resources used as raw materials
- PERT = Total use of renewable primary energy resources
- PENRE = Use of non-renewable primary energy resources excluding non-renewable 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 materials
- RSF = Use of renewable secondary fuels
- NRSF = Use of non-renewable secondary fuels
- FW = Use of net fresh water

### BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
BBCpr	Kg C	0,00 E+00	0,00 E+00	0,00 E+00	0,00 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00
BCCpa	kg C	0,00 E+00	0,00 E+00	1,21 E-03	1,21 E-03	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00	0 E+00

- BCCpr = Biogenic carbon content in product
- BCCpa = Biogenic carbon content in packaging



## CALCULATION RULES

Data quality and collection period:

All primary data was collected via a questionnaire in 2022 and completed by Fleetwood. This includes data on raw materials, transport, and the manufacturing site. Where primary data was not available, secondary data was used. Secondary data was taken from the PEFCR for decorative paints and EN15804+A2:2019 product category rules for construction products.

Cut-off criteria and allocation procedures:

Cut-off within the background processes is according to the respective methodologies (see documentation of the relevant processes (Wernet et al., 2016)).

In the foreground data, some cut-offs were applied to the study. These were the packaging of raw materials due to limited data availability and the materials required for the application of paint as they are considered capital goods. These cut-offs were employed as they are in line with LCA methodology and not expected to significantly impact the results of the LCA study.

During the manufacturing process, the input of consumables and disposed packaging from the raw materials is cut off from the system boundaries due to a lack of data on the composition of waste. Furthermore, brushes, clothes, buckets etc. used during the application process are excluded from the assessment since they are considered capital goods. The treatment and disposal of general manufacturing waste are included in the system boundaries.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

### A1. Raw materials supply

This module considers the extraction and processing of all raw materials and energy which occur upstream to the manufacturing process, as well as waste processing up to end-of waste status.

### A2. Transport of raw materials to the manufacturer

This includes the transport distance of the raw materials to the manufacturing facility via road. For a number of raw materials, supplier-specific data was used when available. For the remaining raw materials, the PEFCR for decorative paints is followed.

Transport of Raw Materials (A2)	Vehicle type	Distance (km)	Source
Raw materials (product)	lorry (>32 ton)	250	PEFCR for decorative paints
Raw materials (packaging)	lorry (>32 ton)	250	PEFCR for decorative paints
Raw material (supplier data)	lorry (>32 ton)	405	Fleetwood
Raw material (supplier data)	Container ship	1246,4	Fleetwood
Raw material (supplier data)	Container ship	204	Fleetwood

### A3. Manufacturing

This module covers the manufacturing of the paint and includes all processes linked to production such as storing, mixing, packing and internal transportation. The use of electricity and energy in paint production is taken into account.

Data regarding paint production was provided for the manufacturing site where the paint is produced: Virginia Co., Ireland. Transportation data for the transportation modes and distances were provided by Fleetwood. For electricity sources (standard market mix, Ireland) the Ecoinvent 3.10 dataset was used. For upstream (raw material processes) and downstream processes (application, use, and waste processing) generic data is used when no specific data could be obtained.

### A4. Transport to customer

This module covers the transportation of the paint from the factory to the regional distribution center, or directly to point of sale. Data for this module was provided by Fleetwood. Assumed distances and vehicle types of shown in Table 2.

Transport to Point of Sale	Amount (%)	Vehicle type	Distance (km)	Source
Transport to Regional Distribution Centre (RDC)	Confidential	lorry (>32 ton)	90	Fleetwood
Transport from RDC to POS	Confidential	lorry (<10 ton)	143	Fleetwood
Transport from RDC to POS	Confidential	lorry (<10 ton)	127	Fleetwood
Transport from RDC to POS	Confidential	lorry (<10 ton)	60	Fleetwood
Transport direct to POS	Confidential	lorry (<10 ton)	30	Fleetwood
Transport direct to POS	Confidential	lorry (<10 ton)	160	Fleetwood
Transport direct to POS	Confidential	lorry (<10 ton)	189	Fleetwood





#### A5. Application and use

This module includes the environmental impacts associated with the application of the paint. It is assumed that no energy is required during application. The use of paintbrushes and other appliances used during application are not included. There are raw materials in the paint formulations which contain small amounts of solvents. The VOC emissions during the application of paint are included in this module.

#### C2. Transport to incineration or landfill

This module includes a one-way transportation distance from the demolition or sorting site to the dump site. Table 3 shows the End-of-Life transport for applied paint. In accordance with the PEF CR for decorative paints, this is assumed to be 100% landfilled.

Transport to EOL	Vehicle type	Distance (km)	Source
Applied paint	lorry (>32t)	80km	PEFCR for Decorative Paints

#### C3. Waste processing and C4. Disposal

The end of life stage is encompassed in these modules. It is assumed that paint is used as interior paint and exterior paint and, in accordance with the PEF CR for decorative paints, is 100% landfilled.

End-Of-Life	Landfill	Incineration
Applied paint	100%	0%

#### DECLARATION OF SVHC

None of the substances contained in the product are listed in the "Candidate List of Substances of Very High Concern for authorisation", or they do not exceed the threshold with the European Chemicals Agency.

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#### REMARKS

None.