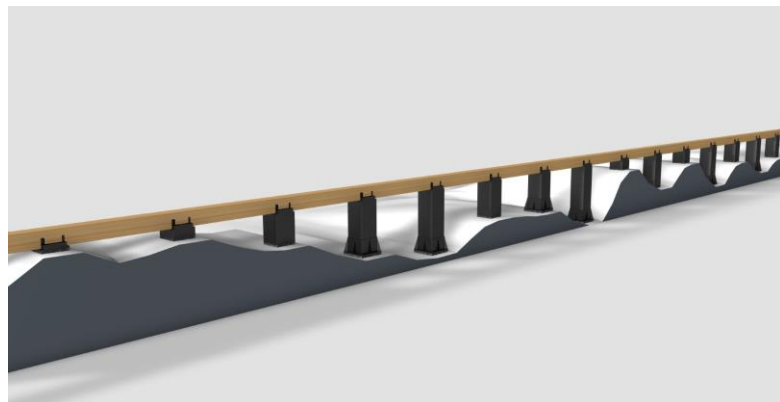




ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025

New Era Floor Levelling System
New Era Floor Systems Limited



EPD HUB, HUB-6780

Published on 24.06.2026, last updated on 24.06.2026, valid until 23.06.2031

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.2 (24 Mar 2025) and JRC characterization factors EF 3.1.



Created with One Click LCA



GENERAL INFORMATION

MANUFACTURER

Manufacturer	New Era Floor Systems Limited
Address	New Era Flooring, Unit 3, Southern Cross Trading Estate, 2 and 3 Beeding Close, Bognor Regis PO22 9TS
Contact details	sales@newerafloorsystems.co.uk
Website	https://newerafloorsystems.co.uk/

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804:2012+A2:2019/AC:2021 and ISO 14025
PCR	EPD Hub Core PCR Version 1.2, 24 Mar 2025
Sector	Construction product
Category of EPD	Third party verified EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A5, and modules C1-C4, D
EPD author	Dr. Aaron Yeardley and Dr. Annaelle Hip Kam
EPD verification	Independent verification of this EPD and data, according to ISO 14025: ☐ Internal verification ☒ External verification
EPD verifier	Elena Antuña-Bernardo as an authorized verifier for EPD Hub

This EPD is intended for business-to-business and/or business-to-consumer communication. The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	New Era Floor Levelling System
Additional labels	
Product reference	S12- Play and Cardio System-48mm
Place(s) of raw material origin	United Kingdom, China, Germany, Turkey & Spain
Place of production	West Sussex, United Kingdom
Place(s) of installation and use	United Kingdom, Denmark & Lithuania
Period for data	Calender Year- 2025 (01/01/2025-31/12/2025).
Averaging in EPD	Multiple products
Variation in GWP-fossil for A1-A3 (%)	-22%/ +31%
GTIN (Global Trade Item Number)	-
NOBB (Norwegian Building Product Database)	-
A1-A3 Specific data (%)	54.3

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg of installed New Era raised flooring system (cradles + pads + battens)
Declared unit mass	1 kg
Mass of packaging	0.00281 kg
GWP-fossil, A1-A3 (kgCO ₂ e)	0.38
GWP-total, A1-A3 (kgCO ₂ e)	-1.5
Secondary material, inputs (%)	40.7
Total energy use, A1-A3 (kWh)	0.07
Net freshwater use, A1-A3 (m ³)	0

PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

New Era Floor Systems Limited is a UK-based company specialising in the design and performance of high-performance raised floor systems for sports and acoustic applications. The company owns the intellectual property, including the design and moulds for its precision-engineered cradle and batten systems.

Manufacturing of the cradle systems is carried out by Inpress Plastic Limited to New Era's specifications and quality requirements. Quality assessments associated with manufacturing are subcontracted to Inpress but are performed in accordance with specifications and standards defined by New Era. New Era retains full responsibility for product design, system specification, laboratory testing, and certification of the finished systems.

New Era's cradle and raised floor systems have been developed and tested for sports performance in accordance with relevant sections of BS EN 14904, covering shock absorption, energy return, and surface properties. For acoustic applications, the resilient cradle systems are tested to support compliance with UK Building Regulations Part E for sound transmission in residential, commercial, educational, and leisure buildings.

Through its focus on engineered sub-floor design and verified system performance, New Era Floor Systems provides flooring solutions that meet the demands of modern construction. The company's strapline, "Performance starts beneath the surface," reflects its emphasis on the critical role of sub-structure design in achieving effective sports and acoustic outcomes.

PRODUCT DESCRIPTION

The New Era raised flooring system is a multi-component floor levelling system designed for installation over flat, uneven, or varying-height subfloors. The system consists of moulded plastic cradles, resilient pads, and softwood laminated battens. The cradles support the battens, onto which timber floorboards are fixed. The battens are levelled within the cradles using packing pieces where required.

The product range includes configurations with different cradle heights, batten sizes, cradle spacing, and pad types. The system can provide finished floor construction heights from approximately 60 mm to 449 mm, depending on the selected cradle and batten configuration.

The system is assessed in this EPD as 1 kg of installed New Era raised flooring system. The declared product represents a multiple-product declaration based on a representative configuration selected from the covered product range.

Further information can be found at:

<https://newerafloorsystems.co.uk/>

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	0	-
Minerals	3	Spain
Fossil materials	42	United Kingdom, Spain, Germany and Turkey
Bio-based materials	55	China

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	0.513
Biogenic carbon content in packaging, kg C	0.0002

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg of installed New Era raised flooring system (cradles + pads + battens)
Mass per declared unit	1 kg
Functional unit	-
Reference service life	25 years

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0.1 % (1000 ppm).

PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	
x	x	x	ND	x	ND	ND	ND	ND	ND	ND	ND	x	x	x	x	x	
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recycling

Not declared = ND.

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.

A market-based approach is used in modelling the electricity mix utilized in the factory.

The product stage covers the cradle-to-gate production of 1 kg of New Era raised flooring system, represented by the S12-Play and Cardio System- 48 mm batten configuration. The New Era raised flooring system is a multi-component floor levelling system consisting of moulded plastic cradles and packers, resilient pad material and softwood battens. The representative product model includes plastic cradles/packers, resilient pad, softwood batten material and packaging materials. Floorboards, moisture barrier, skirting and other floor finishing elements are excluded from the declared unit unless explicitly included elsewhere in the model.

A1 – Raw material supply: This module covers the extraction and processing of raw materials used in the representative New Era raised flooring system. The raw materials required for 1kg of installed raised flooring system within the declared scope include polypropylene-based plastic cradles and packers, resilient EVA pad material, and softwood battens.

The plastic cradles and packers material is modelled as a polypropylene-based compound consisting of 90% recycled polypropylene and 10% Granic 1051 mineral masterbatch. The recycled polymer is modelled using a recycled polypropylene dataset. Granic 1051 is modelled through its constituent materials, virgin polypropylene and mineral filler. The mineral filler is modelled using talc production. This reflects the supplier information indicating that Granic 1051 consists of 75% talc and 25% polypropylene.

The batten component is modelled using a kiln-dried softwood beam dataset. The resilient pad in the representative S12 configuration is modelled as ethylene vinyl acetate copolymer foam, used as proxy for the Evazote® EVA foam pad. Supplier-specific EPD datasets were not available for all inputs; therefore, suitable generic datasets were selected.

A2- Transport to manufacturing site: Transport of purchased input materials from suppliers to the manufacturing site in West Sussex, United Kingdom is modelled using European heavy goods vehicle (HGV) road freight. Distances are based on supplier information and standard routing assumptions, using road and sea freight datasets as applicable. Talc/mineral filler and virgin polypropylene are transported 14 km by 3.5–7.5 tonne EURO 5 lorry and 1,650 km by 16–32 tonne EURO 5 lorry. Softwood batten material is transported 250 km by 16–32 tonne EURO 5 lorry and 27,000 km by sea freight bulk carrier. EVA pad material is transported 319 km by 3.5–7.5 tonne EURO 5 lorry. Recycled polypropylene is transported 14 km by 3.5–7.5 tonne EURO 5 lorry and 1,000 km by 16–32 tonne EURO 5 lorry.

A3- Manufacturing: This module includes the manufacturing energy used for the moulding and preparation of the plastic cradles and packers, together with packaging materials used for product distribution. Manufacturing electricity consumption is modelled as 0.72 kWh per declared unit. The product is manufactured using 100% renewable electricity, supported by certificates, which are uploaded as supporting documentation for verification. Packaging materials included in A3 consist of corrugated cardboard boxes, low-density polyethylene packaging film/plastic bags and polypropylene strapping. Per declared unit, the model includes 0.0025 kg of corrugated cardboard box, 0.00012 kg of LDPE packaging film/plastic bag and 0.00011 kg of polypropylene strapping. Transport of packaging materials to the manufacturing site is modelled as 60 km by 3.5–7.5 tonne EURO 5 lorry for each packaging material. No significant manufacturing rejects leave the manufacturing facility, as any internal production offcuts or rejects are reused within the process where technically possible.

The use of green energy in manufacturing is demonstrated through contractual instruments (GOs, RECs, etc.), and its use is ensured throughout the validity period of this EPD.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

A4-Transport to construction site: Transport to the building site, is not declared in this EPD due to the absence of representative project-specific distribution data.

A5 -Installation: This module covers the treatment of packaging waste arising from installation of the declared product. No additional installation materials, installation energy or installation water use have been included, as the declared system is assumed to be installed as a dry raised flooring support system using the modelled cradles, pads and battens. The declared unit does not include floorboards, moisture barrier, skirting or other finishing materials. Packaging waste treatment in A5 includes the cardboard and plastic packaging materials. Packaging waste generated at the construction site is modelled using European average waste management scenarios including recycling, energy recovery, and landfill. Plastic packaging waste is modelled using the selected EU scenario for plastic packaging treatment, including recycling, incineration and landfill routes. Cardboard packaging waste is modelled using the selected EU scenario for cardboard packaging treatment, including recycling, incineration and landfill routes.

PRODUCT END OF LIFE (C1-C4, D)

The end-of-life model covers the declared product components only: plastic cradles and packers, resilient pad material and softwood battens. Floorboards, moisture barrier, skirting and other finishing materials are outside the declared unit and are therefore not included in the end-of-life model. The end-of-life stage covers deconstruction, transport, waste

processing, and final disposal of products, modelled in accordance with EN 15804 and the EI 3.11 scenario.

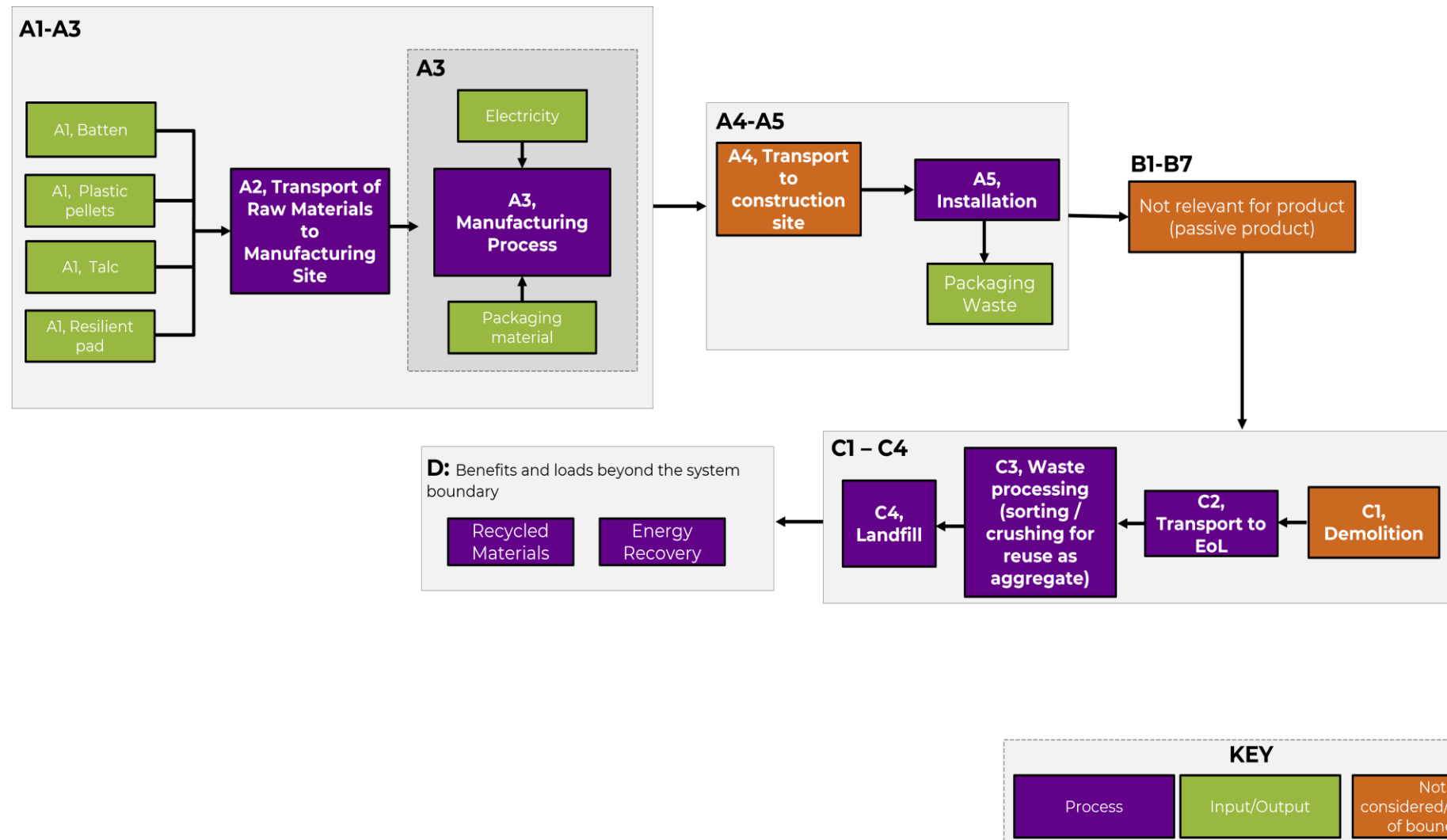
C1- C4 -Deconstruction/demolition: The system is a dry-installed modular cradle-and-batten system and is assumed to be removed mechanically or manually as part of standard building refurbishment or demolition activities. No additional product-specific demolition energy is modelled in C1, as the declared components do not require cutting, crushing or wet-applied removal processes during normal removal. Therefore, C1 is modelled as 0 MJ energy consumption per declared unit.

The transport of the removed product components to waste processing, recovery or disposal facilities is modelled using road freight by lorry greater than 32 tonnes, EURO 5, as included in the selected One Click LCA transport datasets. Transport distances are applied by waste treatment route: 250 km to recycling, 150 km to incineration with energy recovery, and 50 km to landfill. The place(s) of end-of-life are assumed to be the United Kingdom and Europe, in line with the declared markets for installation and use. In the absence of project-specific end-of-life data, representative European end-of-life scenarios have been applied.

The softwood batten fraction is modelled using the selected softwood construction end-of-life scenario. Based on the model input, the softwood fraction is treated through a combination of recycling, incineration with energy recovery and landfill. The polypropylene-based cradle and packer fraction is modelled using the selected PP construction end-of-life scenario, including recycling, incineration and landfill routes. The resilient pad material is modelled using the selected rubber/EVA component end-of-life scenario, including incineration with energy recovery and landfill routes, as applicable to the selected dataset.

D -Benefits and loads beyond the system boundary: The potential benefits and loads beyond the system boundary are calculated using the representative substitution assumptions included in the selected One Click LCA datasets and are reported separately in accordance with EN 15804. Module D includes benefits and loads from recycling of softwood and polypropylene fractions, as well as exported thermal and electrical energy from incineration with energy recovery of softwood, polypropylene and resilient pad material. To avoid double counting, the net recyclable mass credited in Module D is adjusted to reflect only the virgin material fraction. No additional project-specific substitution assumptions have been applied outside the selected One Click LCA scenarios.

LIFE CYCLE FLOW DIAGRAM



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

The production of capital equipment, construction activities, and infrastructure, maintenance and operation of capital equipment, personnel-related activities, energy and water use related to company management and sales activities are excluded.

VALIDATION OF DATA

Data collection for production, transport, and packaging was conducted using time and site-specific information, as defined in the general information section on page 1 and 2. Upstream process calculations rely on generic data as defined in the Bibliography section. Manufacturer-provided specific and generic data were used for the product's manufacturing stage. The analysis was performed in One Click LCA EPD Generator, with the 'Cut-Off, EN 15804+A2' allocation method, and characterization factors according to EN 15804:2012+A2:2019/AC:2021 and JRC EF 3.1.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	Not applicable
Ancillary materials	Not applicable
Manufacturing energy and waste	No allocation

PRODUCT & MANUFACTURING SITES GROUPING

Type of grouping	Multiple products
Grouping method	Based on a representative product
Variation in GWP-fossil for A1-A3, %	-22%/ +31%

New Era is a multi-component raised flooring system comprising plastic cradles, acoustic or sports foam pads, and wooden battens. The product range covered by this EPD includes 144 configurations, varying by batten size, number of cradles per batten, cradle height setting from 1 to 12, and pad type.

This EPD therefore represents a declared product group rather than a single fixed configuration. All configurations covered have the same declared

function, intended application, installation method, use-stage assumptions, and end-of-life scenario. However, because the installed mass per square metre varies between configurations, a single fixed-thickness or single-configuration m² declared unit would not fairly or transparently represent the full range of products covered.

For this reason, the declared unit is 1 kg of installed New Era raised flooring system. This approach provides a practical and compliant basis for representing the variability of the product group under the EPD Hub Core PCR. It also allows users to scale the results to a specific project configuration by multiplying the per-kg environmental impacts by the actual installed mass, expressed in kg/m², of the selected system.

The S12-Play and Cardio System- 48 mm batten configuration has been selected as the representative product for the declared product group. This selection was based on the distribution of A1–A3 GWP-fossil intensity, normalised by total installed system mass, across the configurations assessed. The S12-Play and Cardio System- 48 mm batten configuration is close to the median of the assessed range and is therefore considered representative of the product family in terms of carbon intensity.

The covered configurations are variants of the same raised flooring system and share the same intended function and installation principle. Although the S and A series use different pad options, this does not result in a different declared function or materially different performance class for the purpose of this EPD. The products are therefore treated as similar products for averaging in accordance with EPD Hub GPI Annex I.

The A1–A3 GWP-fossil variability of the mass-normalised results is within the EPD Hub ±50% criterion and is disclosed in the EPD.

The table below shows the mass per declared unit for the 144 New Era raised flooring system configurations covered by this EPD. The masses include the modelled cradles and packers, resilient pad, softwood batten and associated

packaging allocated to the declared unit. Floorboards, moisture barrier, skirting and other finishing materials are excluded from the declared unit.

	36 mm Batten			48 mm Batten		
	Arena System	Active and Dance System	Play and Cardio System	Arena System	Active and Dance System	Play and Cardio System
S1	2.61	2.92	3.47	3.57	4.01	4.77
S2	3.05	3.36	4.05	3.90	4.35	5.24
S3	3.14	3.45	4.17	3.98	4.42	5.34
S4	3.58	3.89	4.74	4.31	4.76	5.82
S5	3.68	3.98	4.87	4.39	4.83	5.92
S6	4.11	4.42	5.44	4.71	5.15	6.37
S7	4.21	4.52	5.56	4.80	5.24	6.49
S8	4.65	4.95	6.14	5.13	5.58	6.97
S9	4.74	5.05	6.26	5.21	5.65	7.07
S10	5.18	5.49	6.83	5.54	5.99	7.54
S11	5.27	5.58	6.96	5.62	6.06	7.64
S12	5.71	6.02	7.53	5.95	6.40	8.11
A1	3.01	3.32	4.00	3.88	4.32	5.21
A2	3.45	3.76	4.57	4.21	4.66	5.68
A3	3.55	3.85	4.70	4.29	4.73	5.78
A4	3.99	4.29	5.27	4.62	5.07	6.25
A5	4.08	4.39	5.39	4.70	5.14	6.35
A6	4.52	4.83	5.97	5.03	5.48	6.83
A7	4.61	4.92	6.09	5.11	5.55	6.93
A8	5.05	5.36	6.66	5.44	5.89	7.40
A9	5.15	5.45	6.79	5.52	5.96	7.50
A10	5.58	5.89	7.36	5.85	6.30	7.97
A11	5.68	5.99	7.48	5.93	6.37	8.08
A12	6.12	6.42	8.06	6.26	6.71	8.55

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator for EPD Hub V3 and EPD Process Certification v3.2.5. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1/3.11/3.12 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1/3.11/3.12 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.

Additional database and scenario sources used where applicable include ProBas for the talc production dataset, PlasticsEurope datasets for polypropylene-related data and representative plastic/rubber end-of-life scenarios, and Eurostat & BuildLCA 2020 datasets for representative end-of-life scenarios, all as implemented in One Click LCA.

Manufacturer-specific foreground data from New Era Floor Systems Limited was used for the bill of materials, product configuration data, packaging quantities, manufacturing electricity consumption, material origins, transport assumptions, installation assumptions and representative product / material variability calculations.

Renewable electricity certificate evidence for the manufacturing site is uploaded separately to support the 100% renewable electricity claim in Module A3. No supplier-specific EPD datasets were used in this assessment. No additional external references were used in the LCA modelling beyond the standards, programme rules, databases, One Click LCA datasets/scenarios, manufacturer-specific foreground data and supporting evidence listed above.

ENVIRONMENTAL IMPACT DATA

The estimated impact results are only relative statements which do not indicate the end points of the impact categories, exceeding threshold values, safety margins or risks.

CORE ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO ₂ e	-1.71E+00	1.98E-01	1.25E-02	-1.50E+00	ND	1.10E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.61E-02	2.00E+00	4.53E-01	-7.08E-01
GWP – fossil	kg CO ₂ e	1.72E-01	1.98E-01	1.31E-02	3.82E-01	ND	3.70E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.61E-02	6.18E-01	1.61E-02	-4.71E-01
GWP – biogenic	kg CO ₂ e	-1.88E+00	8.71E-05	-7.10E-04	-1.88E+00	ND	7.27E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.61E-06	1.38E+00	4.37E-01	-2.37E-01
GWP – LULUC	kg CO ₂ e	7.01E-04	1.75E-04	1.17E-04	9.93E-04	ND	6.93E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.19E-06	1.53E-05	1.84E-06	-5.85E-04
Ozone depletion pot.	kg CFC-11e	1.25E-08	3.81E-09	2.56E-10	1.65E-08	ND	9.82E-13	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.37E-10	1.94E-10	7.34E-11	-1.49E-08
Acidification potential	mol H ⁺ e	9.16E-04	1.75E-03	7.18E-05	2.73E-03	ND	4.99E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	5.48E-05	1.52E-04	2.01E-05	-2.24E-03
EP-freshwater ²⁾	kg Pe	2.42E-05	1.29E-05	6.73E-06	4.38E-05	ND	2.48E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.25E-06	5.26E-06	1.29E-06	-2.12E-04
EP-marine	kg Ne	2.59E-04	6.95E-04	1.88E-05	9.72E-04	ND	4.98E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.80E-05	7.84E-05	8.26E-05	-3.77E-04
EP-terrestrial	mol Ne	2.78E-03	7.65E-03	1.68E-04	1.06E-02	ND	1.67E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.96E-04	7.08E-04	8.25E-05	-3.81E-03
POCP (“smog”) ³⁾	kg NMVOCe	1.03E-03	2.26E-03	5.71E-05	3.34E-03	ND	6.18E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	8.08E-05	1.82E-04	3.47E-05	-2.05E-03
ADP-minerals & metals ⁴⁾	kg Sbe	1.73E-06	5.88E-07	3.10E-07	2.62E-06	ND	6.81E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.48E-08	8.88E-08	6.39E-09	-2.33E-06
ADP-fossil resources	MJ	2.99E+00	2.64E+00	1.82E-01	5.81E+00	ND	9.66E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.33E-01	1.71E-01	6.30E-02	-1.21E+01
Water use ⁵⁾	m ³ e depr.	4.73E-01	1.25E-02	6.18E-03	4.91E-01	ND	3.27E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.15E-03	2.75E-02	3.05E-04	-1.47E-01

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO₄e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. 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 experience with the indicator.

ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, EF 3.1

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Particulate matter	Incidence	9.38E-09	1.17E-08	1.16E-09	2.22E-08	ND	2.13E-11	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.61E-09	1.35E-09	4.57E-10	-2.05E-08
Ionizing radiation ⁶⁾	kBq 11235e	5.60E-02	2.51E-03	7.55E-04	5.92E-02	ND	2.83E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.03E-04	1.17E-03	6.22E-05	-1.19E-01
Ecotoxicity (freshwater)	CTUe	2.59E+00	3.93E-01	9.92E-01	3.97E+00	ND	3.45E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.30E-02	2.15E-01	6.39E-02	-9.29E-01
Human toxicity, cancer	CTUh	8.22E-11	3.73E-11	9.56E-12	1.29E-10	ND	1.59E-13	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.65E-12	3.36E-11	1.17E-12	-8.63E-11
Human tox. non-cancer	CTUh	1.95E-09	1.30E-09	3.34E-10	3.58E-09	ND	6.50E-12	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.51E-10	1.52E-09	1.77E-10	-4.06E-09
SQP ⁷⁾	-	8.60E-01	1.09E+00	3.02E-01	2.26E+00	ND	7.97E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.35E-01	1.29E-01	1.47E-01	-3.23E+00

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Renew. PER as energy ⁸⁾	MJ	5.34E+00	3.92E-02	2.78E+00	8.16E+00	ND	-4.13E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.20E-03	-4.63E+00	-2.23E+00	-3.77E-01
Renew. PER as material	MJ	1.67E+01	0.00E+00	3.31E-02	1.68E+01	ND	-3.31E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-1.27E+01	-4.02E+00	1.77E+00
Total use of renew. PER	MJ	2.21E+01	3.92E-02	2.82E+00	2.49E+01	ND	-7.44E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.20E-03	-1.73E+01	-6.25E+00	1.39E+00
Non-re. PER as energy	MJ	-1.07E+01	2.64E+00	1.72E-01	-7.90E+00	ND	-8.50E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.33E-01	-1.30E+01	-4.71E+00	-1.31E+01
Non-re. PER as material	MJ	1.37E+01	0.00E+00	1.06E-02	1.37E+01	ND	-1.06E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	-1.00E+01	-3.70E+00	3.38E+00
Total use of non-re. PER	MJ	2.99E+00	2.64E+00	1.83E-01	5.81E+00	ND	-1.91E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.33E-01	-2.30E+01	-8.41E+00	-9.72E+00
Secondary materials	kg	4.07E-01	1.47E-03	3.36E-03	4.12E-01	ND	1.74E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	9.93E-05	5.41E-04	2.28E-05	1.08E-01
Renew. secondary fuels	MJ	5.38E-06	1.14E-05	2.47E-04	2.63E-04	ND	1.11E-08	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.26E-06	3.46E-06	4.28E-07	-1.29E-05
Non-ren. secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m ³	8.33E-04	2.80E-04	1.26E-04	1.24E-03	ND	-6.54E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.45E-05	2.26E-04	-9.39E-04	-4.95E-03

8) PER = Primary energy resources.

END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste	kg	8.68E-03	1.75E-02	1.33E-02	3.94E-02	ND	1.83E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.95E-04	8.03E-03	1.10E-04	-2.40E-02
Non-hazardous waste	kg	4.22E-01	1.65E-01	4.92E-02	6.36E-01	ND	1.30E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.31E-03	5.58E-01	1.26E+00	-2.81E+00
Radioactive waste	kg	7.91E-06	6.04E-07	1.88E-07	8.70E-06	ND	6.95E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.97E-08	3.00E-07	1.52E-08	-3.05E-05

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	2.23E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	2.46E-01	0.00E+00	0.00E+00
Materials for energy rec	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	7.97E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	4.09E+00	0.00E+00	0.00E+00
Exported energy – Electricity	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	7.15E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	1.72E+00	0.00E+00	0.00E+00
Exported energy – Heat	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	ND	8.26E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	2.37E+00	0.00E+00	0.00E+00

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global Warming Pot.	kg CO ₂ e	1.70E-01	1.97E-01	1.32E-02	3.80E-01	ND	6.78E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.60E-02	6.18E-01	2.30E-02	-4.62E-01
Ozone depletion Pot.	kg CFC ₁₁ e	1.01E-08	3.03E-09	1.68E-10	1.33E-08	ND	8.11E-13	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.89E-10	1.62E-10	5.86E-11	-1.23E-08
Acidification	kg SO ₂ e	6.76E-04	1.28E-03	5.76E-05	2.01E-03	ND	3.82E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.19E-05	1.09E-04	1.49E-05	-1.88E-03
Eutrophication	kg PO ₄ ³ e	3.68E-04	2.83E-04	2.67E-05	6.77E-04	ND	3.87E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.02E-05	3.53E-05	1.09E-05	-3.41E-04
POCP (“smog”)	kg C ₂ H ₄ e	5.87E-05	8.46E-05	4.82E-06	1.48E-04	ND	1.14E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.73E-06	8.29E-06	4.97E-06	-1.47E-04
ADP-elements	kg Sbe	1.72E-06	5.78E-07	3.05E-07	2.60E-06	ND	6.67E-10	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.37E-08	8.29E-08	6.20E-09	-2.30E-06

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADP-fossil	MJ	2.83E+00	2.60E+00	1.68E-01	5.60E+00	ND	9.21E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.30E-01	1.51E-01	6.20E-02	-1.00E+01

ADDITIONAL INDICATOR – GWP-GHG

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP-GHG ⁹⁾	kg CO ₂ e	1.72E-01	1.98E-01	1.32E-02	3.83E-01	ND	3.70E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.61E-02	6.18E-01	1.61E-02	-4.71E-01

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. In addition, the characterisation factors for the flows – CH₄ fossil, CH₄ biogenic and Dinitrogen monoxide – were updated. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterisation factor for biogenic CO₂ is set to zero.

SCENARIO DOCUMENTATION

DATA SOURCES

Manufacturing energy scenario documentation

1. Electricity production, wind, 1-3MW turbine, onshore, United Kingdom, Ecoinvent, 0.0141 kgCO₂e/kWh

Installation at the building site (A5) - Scenario documentation

Scenario parameter	Value
Energy: type and consumption (MJ or kWh)	-
Water use (m ³)	-
Ancillary materials: type and mass (kg)	-
Waste materials: type and mass (kg)	Installation waste consists of packaging waste only. Per declared unit, this includes 0.0025 kg of cardboard packaging, 0.00012 kg of plastic packaging film, and 0.00011 kg of polypropylene strapping. No product installation waste is modelled.
Waste materials: output routes	Packaging waste is modelled using representative European packaging waste treatment scenarios. Plastic packaging waste is modelled as 40% recycling, 37% incineration and 23% landfill. Cardboard packaging waste is modelled as 83% recycling, 8% incineration and 9% landfill.
Direct emissions (kg)	-

End of life (C1-C4) - Scenario documentation

Scenario information	Value
Collection process: collected separately (kg)	No separate collection process has been modelled unless specified in the selected end-of-life scenario.
Collection process: Mixed waste (kg)	The product is assumed to follow the mixed construction waste collection route defined in the selected EU end-of-life scenario.
Recovery: re-use (kg)	0
Recovery: recycling (kg)	0.25
Recovery: energy recovery (kg)	0
Disposal (kg)	0
Scenario assumptions e.g. transportation (mode, km) & other	Recycling 250 km, incineration 150 km, and landfill 50 km

THIRD-PARTY VERIFICATION STATEMENT

EPD Hub declares that this EPD is verified in accordance with ISO 14025 by an independent, third-party verifier. The project report on the Life Cycle Assessment and the report(s) on features of environmental relevance are filed at EPD Hub. EPD Hub PCR and ECO Platform verification checklist are used.

EPD Hub is not able to identify any unjustified deviations from the PCR and EN 15804+A2 in the Environmental Product Declaration and its project report.

EPD Hub maintains its independence as a third-party body; it was not involved in the execution of the LCA or in the development of the declaration and has no conflicts of interest regarding this verification.

The company-specific data and upstream and downstream data have been examined as regards plausibility and consistency. The publisher is responsible for ensuring the factual integrity and legal compliance of this declaration.

The software used in creation of this LCA and EPD is verified by EPD Hub to conform to the procedural and methodological requirements outlined in ISO 14025:2010, ISO 14040/14044, EN 15804+A2, and EPD Hub Core Product Category Rules and General Program Instructions.

Verified tools

Tool verifier: Magaly Gonzalez Vazquez

Tool verification validity: 27 March 2025 - 26 March 2028

Elena Antuña-Bernardo as an authorized verifier for EPD Hub Limited
24.06.2026

