environmental economics

Whole Life Carbon Report

Lanwades Woodland Park

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Revision History

Version	*Date Issued*	*Issued by*	*QA Check*
1	12/03/2025	Robert Holbrook BSc MSc	Tim James C.Eng MCIBSE BSc MSc

About Environmental Economics

Our team of experienced consultants specialise in construction and building energy. We have qualifications in sustainability, energy, engineering, building physics and construction as well as environmental, quality management and auditing.

We develop flexible, practical, cost-effective specifications for our clients through identifying solutions and delivering design advice. This includes the following disciplines:

- *Energy Reports*
- *Sustainability Statements*
- *Compliance assessments and advice covering*
    - *Part L (SAP) & Future Homes Standard*
    - *Part F (ventilation)*
    - *Part G (water)*
    - *Part O (overheating)*
- *Overheating - TM59 dynamic modelling*
- *Overheating – simple method*
- *Life cycle carbon assessments*
- *Net zero carbon assessments*
- *BREEAM*
- *SBEM (existing and new build)*
- *Minimum Energy Efficiency Standards (MEES)*
- *Thermal Bridging (Psi value calculations)*

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1. Executive Summary

1.1.1. Environmental Economics Ltd has been commissioned by Lochailort Kentford Ltd to prepare a Whole Life Carbon (WLC) Report for the residential site Lanwades Woodland Park.

1.1.2. This assessment has been carried out in accordance with the latest published RICS Whole Life Carbon Assessment for the Built Environment Guidance (2nd Edition, July 2024). Whole Life Carbon calculations within this report align with the latest RICS methodology and guidance.

1.1.3. The assessed residential build specification shows an embodied carbon benchmark rating of B, showing that the current assumed build specification is of a high standard, as shown in Figure 1 below:

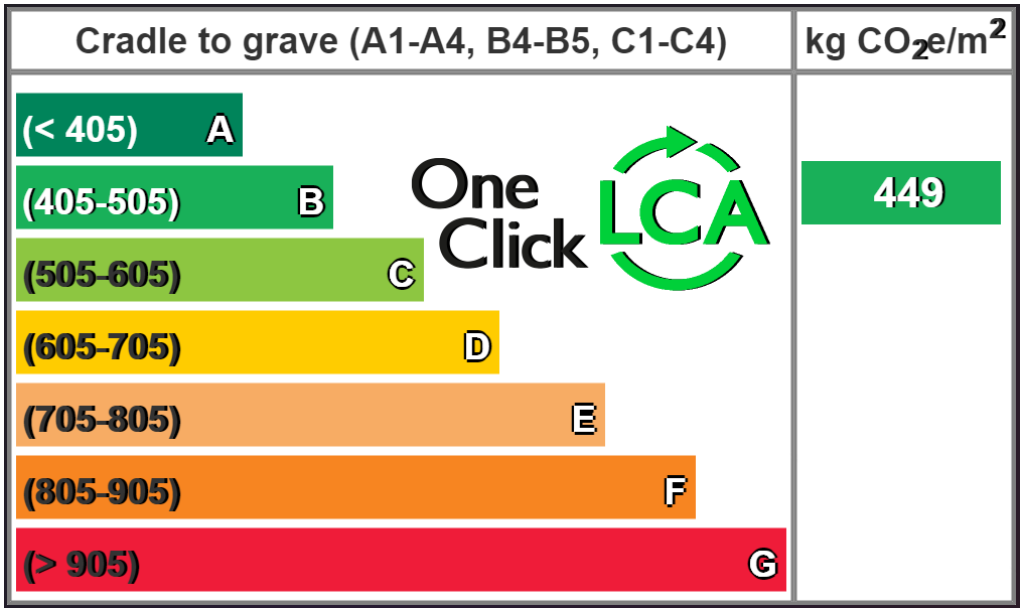

Figure 1 - Embodied Carbon benchmark

1.1.4. More detail on embodied carbon benchmarks can be found in section 4.4 below.

1.1.5. Results show that operational carbon is expected to be the highest source of emissions, making up 58.9% of total emissions, whilst cradle to grave embodied carbon emissions are responsible for 41.1% of emissions. This is based on an assumed build specification at present and can be reduced through targeted product specification as the detail of build specification is progressed.

1.1.6. The build specification of this development sets a high standard for WLC and is seen as an improvement on industry standard specifications.

2. Project Overview

2.1. Description of Site

2.1.1. The site proposal consists of the construction of approximately 1000 residential dwellings, along with several non-domestic buildings including retail units, a care home, a school and office buildings.

2.1.2. The proposed site plan is shown in Appendix A.

2.2. Brief

2.2.1. Lochailort Kentford Ltd have commissioned a Whole Life Carbon Assessment for the site Lanwades Woodland Park to show how the embodied carbon associated with the development performs against industry standard benchmarks. Recommendations are included to show how the development can improve upon the embodied carbon emissions shown within this report.

2.2.2. This report seeks to address both operational and embodied carbon for the development and show how the scheme improves upon national standards.

2.2.3. Further details on the operational carbon can be found in the associated Energy and Sustainability Report for this development.

2.2.4. A sample house type has been assessed using the current residential build specification to show the WLC performance of the development.

2.2.5. Assessments in this report are based on the residential build specification, owing to the higher proportion of the development site which is to be residential in nature. Due to the sizing and nature of the non-residential aspects of this development, it is considered that the build specification is likely to be very similar to the residential build specification. It can therefore be assumed that the embodied carbon results per square meter will be highly consistent across the development as a whole.

2.2.6. Further assessments can be commissioned at a later date should the non-residential build specification diversify in any considerable amount when compared to the residential build specification.

3. Operational Carbon

3.1. Assessment Methodology

3.1.1. It is expected that the proposed dwellings for this development will fall under the Future Homes Standard Building Regulations. Currently, there is no modelling software available to test whether the sample house types will pass the future regulations. Therefore, SAP 10 methodology was used. The software provides several outputs, and based on the provided specification for this proposed development, we are able to assess the following areas for our calculations:

- *Building regulations compliance, including:*
  - *Carbon emissions (kg CO2/m2/year)*
  - *Primary Energy Demand (kWh/m2/annum)*
  - *Fabric Energy Efficiency (kWh/m2/annum)*
- *Energy usage per year (kWh/annum)*
- *Energy costs per year (£/annum)*
- *More detailed breakdowns by end use (space heating, water heating, cooking, lighting, appliances)*

3.1.2. Each of these outputs can be used in different ways to analyse the performance of the dwelling. The total regulated carbon emissions for each property is based upon:

- *Space heating;*
- *Water heating;*
- *Electricity for pumps and fans;*
- *Electricity for lighting.*

3.1.3. Part L 2021 requires all newbuild properties to be designed to operate space heating at lower temperatures to ensure suitability for heat pumps (AD-L, section 5.10). It is therefore a natural decision to adopt heat pumps to deliver space heating and hot water on this development.

3.1.4. SAP software is issued by independent software suppliers, and checked and approved on behalf of government by the Building Research Establishment (BRE).

3.1.5. Non-domestic units will be assessed using an approved SBEM software tool during detailed design.

3.2. Operational Energy Results

3.2.1. The combination of improved fabric specification and implementation of ASHP and dMEV for this particular development result in lower carbon missions than is required by national and local policy requirements.

3.2.2. Representative data from sample SAPs completed for the Energy and Sustainability Report for this development are used to show operational carbon emissions within the WLC assessment in this report.

3.2.3. Results show that whilst the operational emission rates are improved beyond the required levels, operational energy still makes up 58.9% of total carbon emissions of the representative house type.

3.2.4. Full details of the approach to operational energy and emissions can be found in the Energy and Sustainability Report for this development.

4. Embodied Carbon

4.1. Context

4.1.1. As building regulation requirements and decarbonisation of grid electricity make buildings more energy efficient, operational carbon emissions will make up a decreasing proportion of a development's emissions over time.

4.1.2. Whole Life Carbon (WLC) assessments are therefore becoming increasingly important to value engineer a development and reduce the carbon emissions associated with other aspects of a development, such as embodied carbon (emissions generated in producing materials).

4.1.3. Whilst not yet a requirement under Building Regulations or the West Suffolk Council Joint Development Management Policies Document (2015), WLC assessments are increasingly a requirement of local planning policy, most notably within the Greater London Authority (GLA) through its inclusion in the London Plan.

4.1.4. By assessing the WLC of the build specification for this development, Lochailort Kentford Ltd are pre-empting the wider adoption of WLC requirements and ensuring that they are meeting or exceeding the current WLC benchmarks.

4.1.5. The WLC assessments carried out will also allow for the value engineering of the build specification as the development progresses through detailed design stage. This will allow for the selection of materials with lower embodied carbon impacts whilst maintaining the high standards of fabric efficiency to contribute toward reduced operational carbon emissions.

4.1.6. Examples of this would be the assessment of insulation materials to allow for the selection of a high performing insulation product with lower embodied carbon emissions than the baseline material used at this stage.

4.2. Assessment Methodology

4.2.1. Environmental Economics have modelled a sample residential dwelling in a baseline masonry specification using One Click LCA software.

4.2.2. One Click LCA utilises a library of EPDs including product specific, manufacturer specific and generic Environmental Product Declarations (EPDs) in accordance with RICS guidance. Owing to the early stage of design at which this assessment was carried out, limited detail was available in relation to specific products which are to be utilised during construction. The closest applicable generic EPDs have therefore been used within the assessment to give an accurate representation of the build specification.

4.2.3. Further analysis of WLC using a more refined specification will be possible once products have been specified, allowing for a more accurate representation of embodied carbon emissions from the development.

4.2.4. One Click LCA assessments are aligned with the Royal Institute of Chartered Surveyors (RICS) Conventions and reports on RIBA life cycle stages A-C, as shown in Table 1 below:

Table 1 – RIBA life cycle stages for Whole Life Carbon analysis

Product Stage			***Construction Process Stage***		***Use Stage***							***End of Life Stage***			
Raw material supply	Transport	Manufacturing	Transport to building site	Installation into building	Use / application	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction / demolition	Transport	Waste processing	Disposal
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4

4.2.5. Operational Carbon is considered within the WLC assessment, however greater detail can be found though SAP. More detail on operational carbon can be found in the Energy and Sustainability Report for this development.

4.2.6. The assessment is based on an assumed 60 year life-cycle for a building, in accordance with RICS PS 2023 guidance.

4.3. Whole Life Carbon Build Specification

4.3.1. The build specification utilised for the WLC assessment on Lanwades Woodland Park follows generic EPDs from the One Click LCA EPD library.

4.3.2. Assumptions have been made to allow for a complete assessment based on limited currently specified materials. These assumptions include a generic masonry wall build up following the dimensions of the house type assessed and generic roof construction. These are based on industry standards and can therefore be assumed to be accurate prior to specific materials being specified.

4.3.3. In depth bill of quantities are not currently available, so measurements and volumes of individual materials are based on the available drawings.

4.3.4. Table 2 below gives a breakdown of the overarching build constructions per build element:

Table 2 – Construction Specifications per Build Element

Element	*Construction*
Foundations	Concrete strip foundations with pre cast concrete trench blocks
Ground Floor	Concrete beam and EPC block flooring system with EPS insulation and screed overlay, laminate flooring finish
External Walls	Brick and mortar finish, Rockwool insulated cavity, Aircrete and mortar inner leaf, plasterboard on dabs, painted plaster finish
External Roof	Waterproof roofing system external finish with 500mm mineral wool insulation across joists
Intermediate Floor	Wooden I-joists, chipboard and carpet upper finish, plasterboard finished with plaster and paint ceiling finish
Internal Walls	Timber stud walls, plasterboard finished with plaster and paint
Windows	uPVC double glazed
External Doors	Wooden external door
Internal Doors	Wooden internal doors
Staircase	Quarter turn wood staircase

4.3.5. These constructions are based on industry standards and the most up to date information on build specification. Results can be updated for accuracy as build specification is progressed.

4.4. Whole Life Carbon Results

4.4.1. A sample residential dwelling has been assessed using the above methodology with the above build specification for the Lanwades Woodland Park development.

4.4.2. Figures 2 and 3 below shows the carbon emissions of the sample build specification per life-cycle stage:

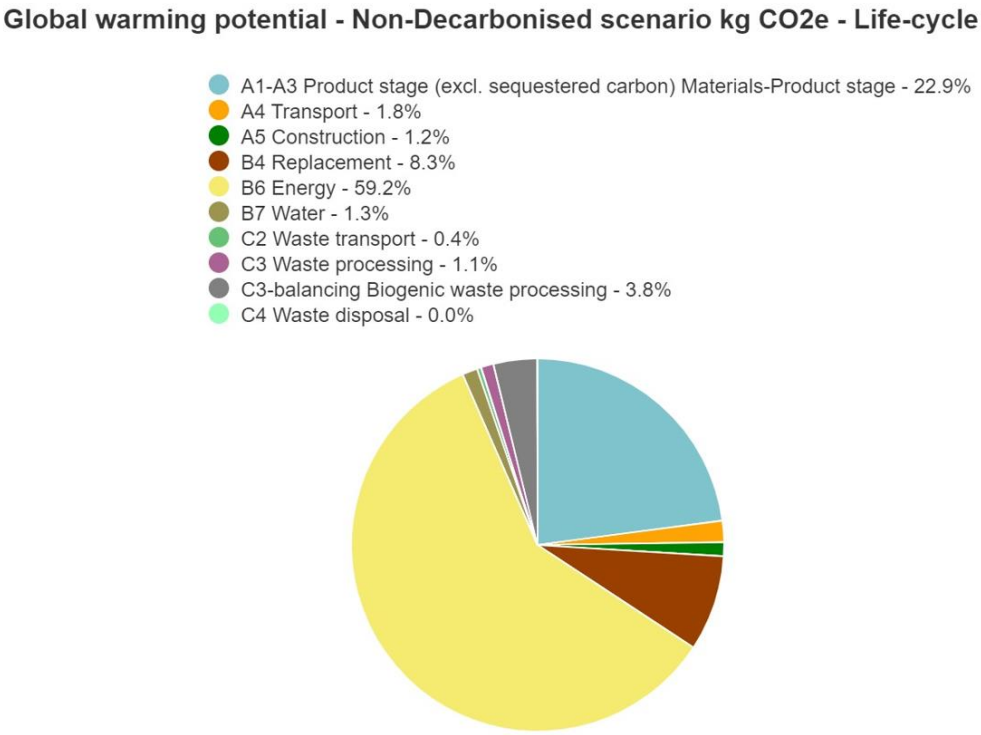

Figure 2 - Carbon emissions per life-cycle stage

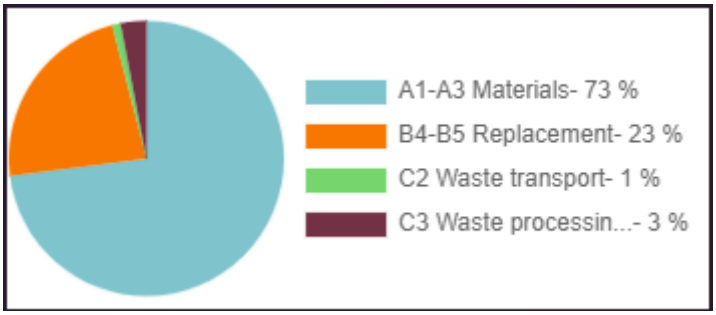

Figure 2 - Embodied carbon per life-cycle stage

4.4.3. Figure 2 shows that the largest contributing factors to the overall emissions associated with this assessment are operational energy, which is assessed in detail in the Energy and Sustainability Report for this development.

4.4.4. Figure 3 shows embodied carbon emissions with operational emissions removed, which shows that RIBA stages A1-A3 are the most contributing factors in relation to embodied carbon.

4.4.5. This shows that the greatest savings in emissions can be made through improvements to the operational energy usage and the material specification used for the development. As the build specification evolves, materials can be selected which improve both the operational energy efficiency (in order to reduce B6) and the material embodied carbon (A1-A3).

4.4.6. For the purposes of this report, material embodied carbon (A1-A3) is the focus.

4.4.7. Figure 4 below shows which building elements have the greatest impact on embodied carbon emissions:

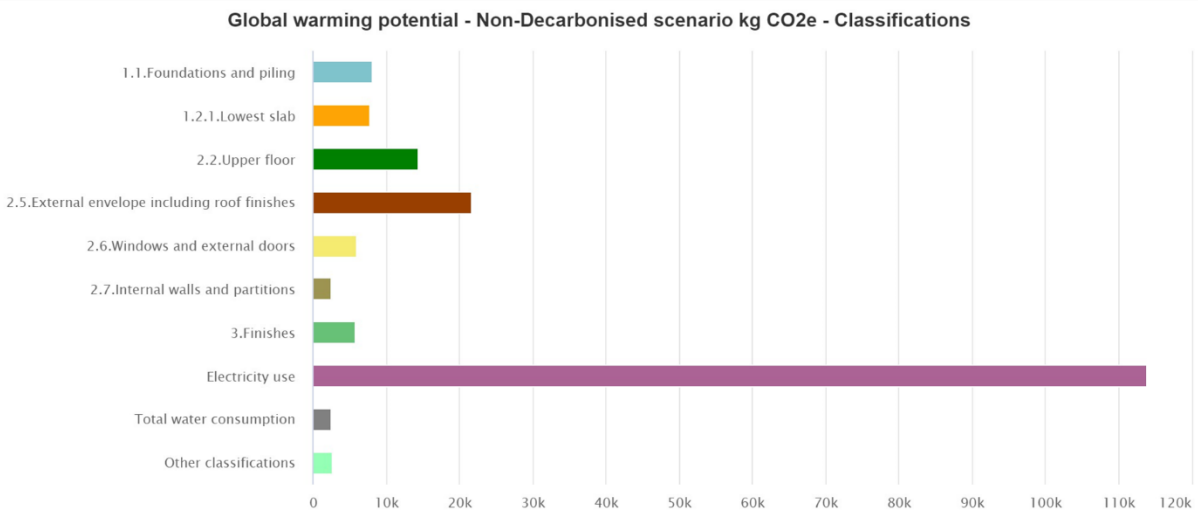

Figure 3 - Embodied carbon emissions per building element

4.4.8. With the current build specification, it can be seen that the largest contributing material element (excluding operational use) is associated with the external envelope including rood finishes. It can therefore be seen that improvements can be made through the specification of lower impact materials utilised in these building elements.

4.4.9. The highest contributing materials to the WLC emissions are:

- *Lightweight concrete blocks;*
- *Stone wool insulation;*
- *Ready mix concrete;*
- *Red brick;*
- *Screed.*

4.4.10. The present build specification utilised for this assessment utilises generic EPD data for the above building materials. As the build specification is progressed, it is recommended that higher performing materials are utilised for these elements. Recommendations can be found in section 4.5.

4.4.12. Figure 5 below shows how embodied carbon will differ based on both a decarbonised (based on grid decarbonisation assumptions over the life-cycle of the assessment) and non-decarbonised scenario (business as usual):

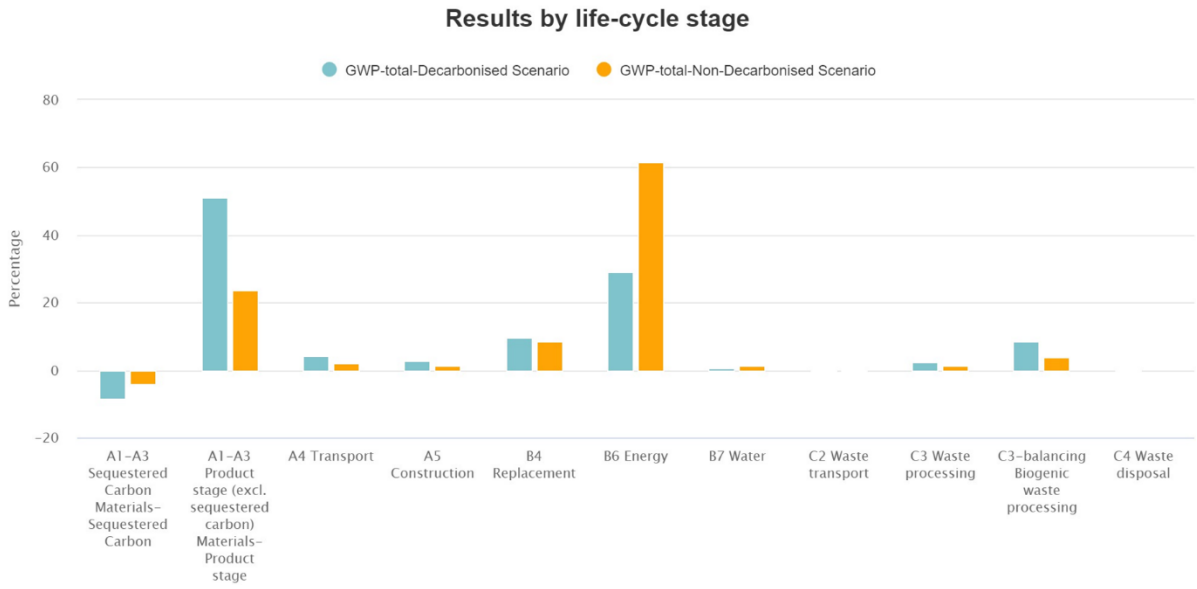

Figure 4 - Decarbonised scenario (blue) vs. non-decarbonised scenario (orange)

4.4.13. Figure 5 shows that as grid electricity is predicted to continue decarbonising, the operational emissions associated with a building become a smaller proportion of overall emissions.

4.4.14. The predicted continuing decarbonisation of the grid greatly increases the benefits which can be gained from value engineering a build specification to reduce material embodied carbon.

4.4.15. Recommendation on how the development at Lanwades Woodland Park can reduce embodied carbon emissions can be found in section 4.5.

4.4.16. A more detailed breakdown of WLC results from the One Click LCA software can be found in Appendix B, whilst a full breakdown of all data used in the assessment can be found in Appendix C.

4.4.17. To show how the residential build specification for Lanwades Woodland Park compares to industry standard build specifications for the same or similar building types, One Click LCA software has been used to produce an embodied carbon benchmark rating, as show in Figure 1 on the next page:

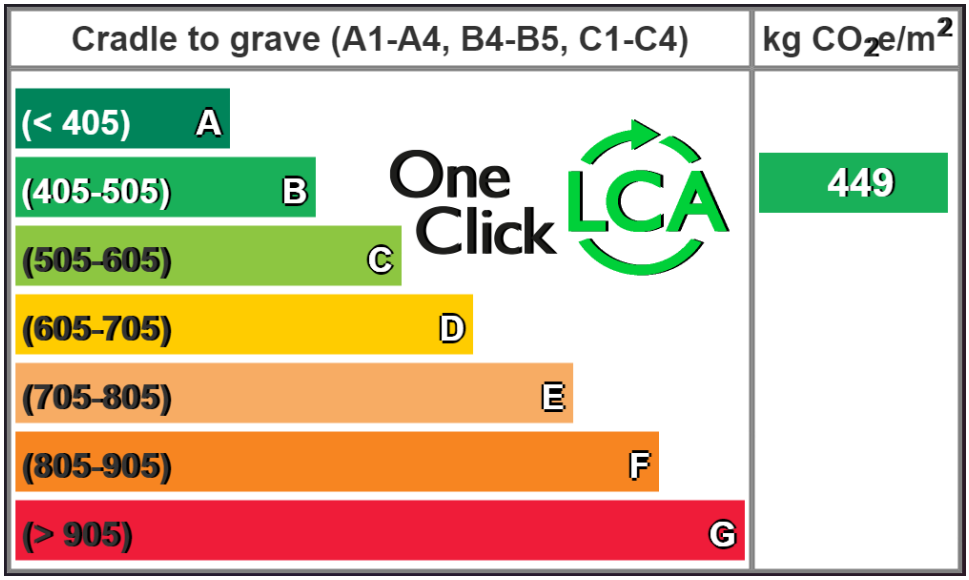

Figure 5 - Embodied Carbon benchmark

4.4.18. The embodied carbon benchmark is calculated by comparing the assessed build specification to available data of the same or similar building types to produce a comparative ranking of how much embodied carbon is associated with the assessed specification.

4.4.19. The residential build specification that has been assessed for this development achieves an embodied carbon emission rating of 449 $kgCO_2e/m^2$. This level of embodied carbon emissions compares positively against the available data against which it has been compared, and is ranked as a B.

4.4.20. This comparatively low embodied carbon rating shows that the assessed build specification for this development can be considered a positive sustainable specification for residential dwellings.

4.5. Recommendations

4.5.1. As discussed in section 4.4, the highest contributing building elements are:

- *Lightweight concrete blocks;*
- *Stone wool insulation;*
- *Ready mix concrete;*
- *Red brick;*
- *Screed.*

4.5.2. As generic EPDs have been utilised for these elements, there are several products within the One Click LCA EPD library which have a lower embodied carbon than those utilised in the assessment.

4.5.3. Product specific EPDs are available for several building materials including concrete blocks, ready mix concrete, red brick, screed and mortar which have lower embodied carbon associated with them. Specifying these products at detailed design stage will allow for a significant reduction in overall embodied carbon and improved WLC performance.

4.5.4. Several insulation products are available which perform better than stone wool insulation. Examples of this include PIR board, which performs over twice as well as the specified insulation for embodied carbon, and blown bead insulation which improves greatly upon stone wool.

4.5.5. A timber frame construction specification can also be considered. Timber frame construction would have a large improvement when compared to the concrete block construction associated with masonry dwellings. It is recommended that this is considered at detailed design stage.

4.5.6. These potential improvements to the build specification will be considered during detailed design stage and a finalised build specification will be agreed upon which reduces embodied carbon whilst maintaining low operational emissions.

4.5.7. It is recommended that a finalised build specification is assessed using One Click LCA to ensure a reduced embodied carbon impact to improve overall life-cycle performance of the development.

5. Conclusion

5.1.1. This Life Cycle Carbon Report has been produced for the proposed development at Lanwades Woodland Park.

5.1.2. Assessments were performed using the current available data and assumptions for the residential build specification at this development.

5.1.3. Results show that the development performs well in comparison to nationally available data for embodied carbon for the same of similar building types, with an embodied carbon benchmark rating of B.

5.1.4. It can be seen from the assessments used for this report that the most contributing building materials for embodied carbon are:

- *Lightweight concrete blocks;*
- *Stone wool insulation;*
- *Ready mix concrete;*
- *Red brick;*
- *Screed.*

5.1.5. As build specification is developed through detailed design stage, it is recommended that embodied carbon of individual building materials and elements is considered in a holistic way in order to further reduce Whole Life Carbon costs. It is further recommended that the materials highlighted in section 5.1.3 above are focused on for value engineering the specification.

5.1.6. The site is found to present a positive sustainable development based on the assessed criteria.

Appendix A – Proposed Site Layout

Appendix B – Breakdown of Results

Entity users	Project name	Design name	Indicator name
Rob Holbrook	Lanwades 4 bed detached	2 - Baseline	Whole life carbon assessment, RICS - 2nd Edition
Section	**Result category**	**Global warming potential - Decarbonised scenario kg CO2e**	**Global warming potential - Non-Decarbonised scenario kg CO2e**
A0	Pre-construction		
A1-A3 Sequestered Carbon	Construction Materials-Sequestered Carbon	-7361.95	-7361.95
A1-A3 Product stage (excl. sequestered carbon)	Construction Materials-Product stage	44143.48	44143.48
A4	Transportation to site	3562.05	3562.05
A4-leg1	Transportation to site - leg 1	3559.08	3559.08
A4-leg2	Transportation to site - leg 2	2.97	2.97
A5	Construction/installation process	2288.12	2288.12
A5-1	Pre-construction demolition		
A5-2	Site operations		
A5-3	Site waste	2288.12	2288.12
A5-4	Transportation of workers to the site		
B1	Use phase		
B1-1	Carbonation		
B1-2	Refrigerant emissions		
B2	Maintenance		
B3	Repair	0	0
B3a	Repair - materials	0	0
B3b	Repair - transport	0	0
B3b-leg2	Repair - transport leg 2	0	0
B3c	Repair - waste	0	0
B3d	Repair scenario		
B4	Material replacement and refurbishment	8175.18	15998.07
B4a	Material replacement - materials	4682.35	9032.66
B4b	Material replacement - transport	695.12	1390.24
B4b-leg2	Material replacement - transportleg 2	2.44	4.88
B4c	Material replacement-EoI	2436.58	4872.77
B4d	Material replacement -site waste	358.69	697.52
B6	Energy consumption	25104.05	113944.46
B6-building	Energy impact-Building	25104.05	113944.46
B6-External works	Energy impact-External works	0	0
B7	Water use	510.76	2553.8
B7-Essential	Water use-Essential Building	510.76	2553.8
B7-Other	Water use-Other Building		
B7-Non-building	Water use- Non-building		
C1-C4	End of life	9781.76	10119.61
C1	Deconstruction/demolition		
C2	Waste transport	337.88	675.73
C3	Waste processing	9390.47	9390.47
C4	Waste disposal	53.41	53.41
D	External impacts (not included in totals)	-3159.57	-6318.57
D	Installed Materials - benefit	-2609.1	-5217.68
A5-benefit	Construction site - material wastage - benefit	-95.66	-191.32
A5m-benefit	Construction site - material use - benefit		
B3-benefit	Repair - benefit	0	0
B4-B5-benefit	Material replacement - benefit	-454.8	-909.56
D-reused	Benefit - reused as material		

Appendix C – Full Table of Data

Table of data starts on next page.

Entity users	Project name	Design name	Indicator name																
Rob Holbrook	Limeales 4 bed detached	2 - Baseline	Whole life carbon assessment, RICS 2nd Edition																
Section	Resource	User input	Unit	Global warming potential - Decarbonised scenario kg CO_2e	Global warming potential - Non-Decarbonised scenario kg CO_2e	Question	Thickness mm	Comment	Building element	Integrated system type	Energy Usage	Construction	Resource type	Datasource	Name	Transformation process	uniClass	calMasterformat	
A1-A3 Product stage (excl. sequestered carbon)	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	752.0	752.0	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
A1-A3 Product stage (excl. sequestered carbon)	Precast concrete block, medium density solid, average strength	6.96	m3	845.4	845.4	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
A1-A3 Product stage (excl. sequestered carbon)	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	5319.7	5319.7	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
A1-A3 Product stage (excl. sequestered carbon)				**6957.0**	**6957.0**				**1.1.Foundations and piling**										
A1-A3 Sequestered Carbon	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
A1-A3 Sequestered Carbon	Precast concrete block, medium density solid, average strength	6.96	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
A1-A3 Sequestered Carbon	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	0	0	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
A1-A3 Sequestered Carbon									**1.1.Foundations and piling**										
A4	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	93.1	93.1	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
A4	Precast concrete block, medium density solid, average strength	6.96	m3	285	285	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
A4	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	229.8	229.8	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
A4				**608.0**	**608.0**				**1.1.Foundations and piling**										
A5-3	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	35.0	35.0	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
A5-3	Precast concrete block, medium density solid, average strength	6.96	m3	11.6	11.6	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
A5-3	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	285.3	285.3	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
A5-3				**333.0**	**333.0**				**1.1.Foundations and piling**										
B3	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
B3	Precast concrete block, medium density solid, average strength	6.96	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
B3	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	0	0	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
B3									**1.1.Foundations and piling**										
C2	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	7.1	14.2	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
C2	Precast concrete block, medium density solid, average strength	6.96	m3	14.0	29.0	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength	Dumper truck, 19 ton capacity, 100% fill rate	Pr2		3
C2	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	70.2	140.4	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete	Dumper truck, 19 ton capacity, 100% fill rate	Pr2		3
C2				**91.9**	**183.7**				**1.1.Foundations and piling**										
C3	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	1.6	1.6	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar	Concrete recycling, concrete crushing	Pr2		4
C3	Precast concrete block, medium density solid, average strength	6.96	m3	3.4	3.4	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength	Concrete recycling, concrete crushing	Pr2		3
C3	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	16.6	16.6	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete	Concrete recycling, concrete crushing	Pr2		3
C3				**21.7**	**21.7**				**1.1.Foundations and piling**										
C3-balancing	Mortar, 1:4 cement:sand mix (05nzuE)	2.21	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
C3-balancing	Precast concrete block, medium density solid, average strength	6.96	m3	0	0	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
C3-balancing	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	0	0	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
C3-balancing									**1.1.Foundations and piling**										
D	Mortar, 1:4 cement:sand mix (05nzuE)	2.27	m3	-39.8	-79.3	Foundation, sub-surface, basement and retaining walls		Trench block mortar	1.1.Foundations and piling				Mortar (masonry/bricklaying)	The Structural Carbon Tool, v2.0	Mortar		Pr2		4
D	Precast concrete block, medium density solid, average strength	6.96	m3	-221.9	-443.8	Foundation, sub-surface, basement and retaining walls		Trench blocks	1.1.Foundations and piling				Other precast concrete products	ICE database December 2024, V4.0	Precast concrete block, medium density solid, average strength		Pr2		3
D	Ready-mix concrete, RC 25/30 (25/30 MPa), with Portland Limestone Cement (14% Limestone)	20	m3	-393.2	-786.4	Foundation, sub-surface, basement and retaining walls	200	Strip foundations	1.1.Foundations and piling				Ready-mix concrete for foundations and internal walls	ICE database August 2019, V3.0	Ready-mix concrete		Pr2		3
D									**1.1.Foundations and piling**										
A1-A3 Product stage (excl. sequestered carbon)				**8512.2**	**8104.2**				**1.1.Foundations and piling**										
A1-A3 Product stage (excl. sequestered carbon)	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	961.0	961.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
A1-A3 Product stage (excl. sequestered carbon)	Insulation - EPS	5.08	m3	238.7	238.7	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
A1-A3 Product stage (excl. sequestered carbon)	Screed - Levelling	5.08	m3	4893.2	4893.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
A1-A3 Product stage (excl. sequestered carbon)	Insulation - EPS	7.2	m3	344.3	344.3	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
A1-A3 Product stage (excl. sequestered carbon)				**6413.3**	**6413.3**				**1.2.1.Lowest slab**										
A1-A3 Sequestered Carbon	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
A1-A3 Sequestered Carbon	Insulation - EPS	5.08	m3	-0.8	-0.8	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
A1-A3 Sequestered Carbon	Screed - Levelling	5.08	m3	203.9	203.9	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
A1-A3 Sequestered Carbon	Insulation - EPS	7.2	m3	-1.2	-1.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
A1-A3 Sequestered Carbon				**-2.1**	**-2.1**				**1.2.1.Lowest slab**										
A4	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	148.2	148.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
A4	Insulation - EPS	5.08	m3	1.4	1.4	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
A4	Screed - Levelling	5.08	m3	203.9	203.9	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
A4	Insulation - EPS	7.2	m3	2	2	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
A4				**355.5**	**355.5**				**1.2.1.Lowest slab**										
A5-3	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	11.2	11.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
A5-3	Insulation - EPS	5.08	m3	27.0	27.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
A5-3	Screed - Levelling	5.08	m3	408.6	408.6	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
A5-3	Insulation - EPS	7.2	m3	40.7	40.7	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
A5-3				**467.7**	**467.7**				**1.2.1.Lowest slab**										
B3	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
B3	Insulation - EPS	5.08	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
B3	Screed - Levelling	5.08	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
B3	Insulation - EPS	7.2	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
B3									**1.2.1.Lowest slab**										
C2	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	7.0	15.1	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam	Dumper truck, 19 ton capacity, 100% fill rate	Pr2		3
C2	Insulation - EPS	5.08	m3	0.1	0.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS	Trailer combination, 40 ton capacity, 100% fill rate	07		
C2	Screed - Levelling	5.08	m3	15.5	31.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling	Dumper truck, 19 ton capacity, 100% fill rate	Pr2		3
C2	Insulation - EPS	7.2	m3	0.2	0.4	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS	Trailer combination, 40 ton capacity, 100% fill rate	07		
C2				**22.8**	**46.6**				**1.2.1.Lowest slab**										
C3	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	1.7	1.7	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam	Concrete recycling, concrete crushing	Pr2		3
C3	Insulation - EPS	5.08	m3	155.7	155.7	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS	PVC products incineration	07		3
C3	Screed - Levelling	5.08	m3	3.8	3.8	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling	Concrete recycling, concrete crushing	Pr2		3
C3	Insulation - EPS	7.2	m3	225.1	225.1	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS	PVC products incineration	07		3
C3				**368.4**					**1.2.1.Lowest slab**										
C3-balancing	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
C3-balancing	Insulation - EPS	5.08	m3	0.8	0.8	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
C3-balancing	Screed - Levelling	5.08	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
C3-balancing	Insulation - EPS	7.2	m3	1.2	1.2	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
C3-balancing				**2.1**	**2.1**				**1.2.1.Lowest slab**										
D	Precast concrete ground beam, 2400 kg/m3 (British Precast)	2.15	m3	-110.0	-220.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor beams	1.2.1.Lowest slab				Structural concrete (beams, columns, piling)	EPD UK manufactured Precast Concrete Ground Beam Produced by members of the British Precast Architectural and Structural (BPAS)	Precast concrete ground beam		Pr2		3
D	Insulation - EPS	5.08	m3	-11.5	-23.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS insulation under screed	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		3
D	Screed - Levelling	5.08	m3	-80.0	-160.0	Floor slabs, ceilings, roofing decks, beams and roof		Floor screed	1.2.1.Lowest slab				Levelling screeds (for floors)	FHH WLC Conventions v1	Screed - Levelling		Pr2		3
D	Insulation - EPS	7.2	m3	-85.4	-170.8	Floor slabs, ceilings, roofing decks, beams and roof		Floor EPS blocks	1.2.1.Lowest slab				EPS (expanded polystyrene) insulation	FHH WLC Conventions v1	Insulation - EPS		07		
D									**1.2.1.Lowest slab**										
				7605.4	**7601.9**				**1.2.1.Lowest slab**										
A1-A3 Product stage (excl. sequestered carbon)	Board - Chipboard	1	m3	290	290	Floor slabs, ceilings, roofing decks, beams and roof		Chipboard first floor	2.2.Upper floor				Particleboard	FHH WLC Conventions v1	Board - Chipboard		Pr5		6
A1-A3 Product stage (excl. sequestered carbon)	Board - Plasterboard	2	m3	546	546	Floor slabs, ceilings, roofing decks, beams and roof		Plasterboard for ceilings	2.2.Upper floor				Regular gypsum board	FHH WLC Conventions v1	Board - Plasterboard		Pr232		6
A1-A3 Product stage (excl. sequestered carbon)	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48	m2	686.2	686.2	Finishes and coverings		First floor carpet	2.2.Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material		Pr7		6
A1-A3 Product stage (excl. sequestered carbon)	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48	m2	439.0	439.0	Finishes and coverings		Ground floor laminate	2.2.Upper floor				Laminate flooring	SPD Laminate Flooring	Laminate flooring		Pr7		6
A1-A3 Product stage (excl. sequestered carbon)	Joists - Engineered timber	22	m	969	969	Floor slabs, ceilings, roofing decks, beams and roof		First floor and ceiling joists	2.2.Upper floor				Plain wood/timber (softwood and hardwood)	FHH WLC Conventions v1	Joists - Engineered timber		Pr5		6
A1-A3 Product stage (excl. sequestered carbon)	Waste mineral wool (One Click LCA)	299	kg	3.6	3.6	Floor slabs, ceilings, roofing decks, beams and roof		400mm mineral wool in loft	2.2.Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool		Pr3		7
A1-A3 Product stage (excl. sequestered carbon)				**2930.8**					**2.2.Upper floor**										
A1-A3 Sequestered Carbon	Board - Chipboard	1	m3	-1000	-1000	Floor slabs, ceilings, roofing decks, beams and roof		Chipboard first floor	2.2.Upper floor				Particleboard	FHH WLC Conventions v1	Board - Chipboard		Pr5		6
A1-A3 Sequestered Carbon	Board - Plasterboard	2	m3	0	0	Floor slabs, ceilings, roofing decks, beams and roof		Plasterboard for ceilings	2.2.Upper floor				Regular gypsum board	FHH WLC Conventions v1	Board - Plasterboard		Pr232		6
A1-A3 Sequestered Carbon	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48	m2	0	0	Finishes and coverings		First floor carpet	2.2.Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material		Pr7		6
A1-A3 Sequestered Carbon	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48	m2	-1140.7	-1140.7	Finishes and coverings		Ground floor laminate	2.2.Upper floor				Laminate flooring	SPD Laminate Flooring	Laminate flooring		Pr7		6
A1-A3 Sequestered Carbon	Joists - Engineered timber	22	m	-1758.6	-1758.6	Floor slabs, ceilings, roofing decks, beams and roof		First floor and ceiling joists	2.2.Upper floor				Plain wood/timber (softwood and hardwood)	FHH WLC Conventions v1	Joists - Engineered timber		Pr5		6
A1-A3 Sequestered Carbon	Waste mineral wool (One Click LCA)	299	kg	-51.4	-51.4	Floor slabs, ceilings, roofing decks, beams and roof		400mm mineral wool in loft	2.2.Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool		Pr3		7
A1-A3 Sequestered Carbon				**-3949.9**	**-3949.9**				**2.2.Upper floor**										
A4	Board - Chipboard	1	m3	18.0	18.0	Floor slabs, ceilings, roofing decks, beams and roof		Chipboard first floor	2.2.Upper floor				Particleboard	FHH WLC Conventions v1	Board - Chipboard		Pr5		6
A4	Board - Plasterboard	2	m3	26.8	26.8	Floor slabs, ceilings, roofing decks, beams and roof		Plasterboard for ceilings	2.2.Upper floor				Regular gypsum board	FHH WLC Conventions v1	Board - Plasterboard		Pr232		6
A4	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48	m2	3.1	3.1	Finishes and coverings		First floor carpet	2.2.Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material		Pr7		6
A4	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48	m2	214.2	214.2	Finishes and coverings		Ground floor laminate	2.2.Upper floor				Laminate flooring	SPD Laminate Flooring	Laminate flooring		Pr7		6
A4	Joists - Engineered timber	22	m	26.9	26.9	Floor slabs, ceilings, roofing decks, beams and roof		First floor and ceiling joists	2.2.Upper floor				Plain wood/timber (softwood and hardwood)	FHH WLC Conventions v1	Joists - Engineered timber		Pr5		6

A4	Waste mineral wool (One Click LCA)	2kg	kg	5.65	5.65	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool			P3		
A4				**295.04**				**2.2 Upper floor**											
A5-3	Board - Chipboard	1 m3		32.0	32.0	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard			P5	0	
A5-3	Board - Plasterboard	2 m3		24.16	24.16	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard			P232	0	
A5-3	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		61.72	61.72	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material			P7	0	
A5-3	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		151.83	151.83	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring			P7	0	
A5-3	Joists - Engineered timber	2 m3		23.28	23.28	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber			P5	0	
A5-3	Waste mineral wool (One Click LCA)	2kg	kg	0.25	0.25	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool			P3		
A5-3				**295.04**				**2.2 Upper floor**											
B3	Board - Chipboard	1 m3		0	0	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard			P5	0	
B3	Board - Plasterboard	2 m3		0	0	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard			P232	0	
B3	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		0	0	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material			P7	0	
B3	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		0	0	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring			P7	0	
B3	Joists - Engineered timber	2 m3		0	0	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber			P5	0	
B3	Waste mineral wool (One Click LCA)	2kg	kg	0	0	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool			P3		
B3				**0**				**2.2 Upper floor**											
B4	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		1633.7	3271.04	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material			P7	0	
B4	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		2934.34	5984.9	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring			P7	0	
B4				**4633.04**	**9256.2**			**2.2 Upper floor**											
C2	Board - Chipboard	1 m3		1.28	2.56	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard		Trailer combination, 40 ton capacity, 100% fill rate	P5	0	
C2	Board - Plasterboard	2 m3		15.38	30.77	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard		Dumper truck, 19 ton capacity, 100% fill rate	P232	0	
C2	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		0.31	0.63	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material		Trailer combination, 40 ton capacity, 100% fill rate	P7	0	
C2	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		1.14	2.27	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring		Trailer combination, 40 ton capacity, 100% fill rate	P7	0	
C2	Joists - Engineered timber	2 m3		1.8	3.6	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber		Trailer combination, 40 ton capacity, 100% fill rate	P5	0	
C2	Waste mineral wool (One Click LCA)	2kg	kg	0.45	0.89	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool		Dumper truck, 19 ton capacity, 100% fill rate	P3		
C2				**20.25**	**40.65**			**2.2 Upper floor**											
C3	Board - Chipboard	1 m3		0.42	0.42	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard		Waste wood and wood products incineration	P5	0	
C3	Board - Plasterboard	2 m3		0.68	0.68	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard		Recycling of gypsum board, gypsum pulverising and handling	P232	0	
C3	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		338.1	338.1	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material		PVC products incineration	P7	0	
C3	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		1226.56	1226.56	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring		PVC products incineration	P7	0	
C3	Joists - Engineered timber	2 m3		12.08	12.08	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber		Waste wood and wood products incineration	P5	0	
C3				**1596.82**				**2.2 Upper floor**											
C3-balancing	Board - Chipboard	1 m3		1058	1058	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard			P5	0	
C3-balancing	Board - Plasterboard	2 m3		0	0	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard			P232	0	
C3-balancing	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		0	0	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material			P7		
C3-balancing	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		1111.68	1111.68	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring			P7		
C3-balancing	Joists - Engineered timber	2 m3		1789.6	1789.6	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber			P5	0	
C3-balancing				**3918.48**	**3918.48**			**2.2 Upper floor**											
C4	Waste mineral wool (One Click LCA)	2kg	kg	0.79	0.79	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool		Inert materials landfilling	P3		
C4-balancing	Waste mineral wool (One Click LCA)	2kg	kg	0	0	Floor slabs, ceilings, roofing decks, beams and roof	100mm mineral wool in loft	2.2 Upper floor				Glass wool insulation	One Click LCA	Waste mineral wool			P3		
D	Board - Chipboard	1 m3		-237.44	-474.88	Floor slabs, ceilings, roofing decks, beams and roof	Chipboard first floor	2.2 Upper floor				Particleboard	FIXH WLC Conventions v1	Board - Chipboard			P5	0	
D	Board - Plasterboard	2 m3		-1.68	-3.37	Floor slabs, ceilings, roofing decks, beams and roof	Plasterboard for ceilings	2.2 Upper floor				Regular gypsum board	FIXH WLC Conventions v1	Board - Plasterboard			P232	0	
D	Broadloom carpet with nylon 6.6 pile material, 2.43 kg/m2, maximum surface pile weight 1000 g/m2 (One Click LCA)	67.48 m2		-209.11	-418.22	Finishes and coverings	First floor carpet	2.2 Upper floor				Carpet flooring	One Click LCA	Broadloom carpet with nylon 6.6 pile material			P7		
D	Laminate flooring, 8.8 kg/m2 (Kronospan Ltd.)	67.48 m2		-375.85	-751.67	Finishes and coverings	Ground floor laminate	2.2 Upper floor				Laminate flooring	EPD Laminate Flooring	Laminate flooring			P7	0	
D	Joists - Engineered timber	2 m3		-315.1	-630.2	Floor slabs, ceilings, roofing decks, beams and roof	First floor and ceiling joists	2.2 Upper floor				Plain wood/timber (softwood and hardwood)	FIXH WLC Conventions v1	Joists - Engineered timber			P5	0	
D								**2.2 Upper floor**											
				9724.94	**14571.41**			**2.2 Upper floor**											
A1-A3 Product stage (excl. sequestered carbon)	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		806.9	806.9	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		P2	3	
A1-A3 Product stage (excl. sequestered carbon)	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		55.16	55.16	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
A1-A3 Product stage (excl. sequestered carbon)	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		737.32	737.32	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic			P3	1	
A1-A3 Product stage (excl. sequestered carbon)	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		93.84	93.84	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7	1	
A1-A3 Product stage (excl. sequestered carbon)				**1692.2**	**1692.2**			**2.3 Roofs**											
A1-A3 Sequestered Carbon	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		P2	3	
A1-A3 Sequestered Carbon	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
A1-A3 Sequestered Carbon	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic			P3		
A1-A3 Sequestered Carbon	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7		
A1-A3 Sequestered Carbon								**2.3 Roofs**											
A4	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		101.62	101.62	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		P2	3	
A4	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		0.67	0.67	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
A4	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		10.8	10.8	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic			P3	1	
A4	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		3.28	3.28	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7	1	
A4				**116.34**	**116.34**			**2.3 Roofs**											
A5-3	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		9.2	9.2	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		P2	3	
A5-3	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		10.48	10.48	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
A5-3	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		52.0	52.0	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic			P3	1	
A5-3	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		5.88	5.88	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7	1	
A5-3				**78.16**				**2.3 Roofs**											
B3	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		P2	3	
B3	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
B3	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic			P3	1	
B3	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7		
B3								**2.3 Roofs**											
B4	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		57.48	114.95	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
B4	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		103.0	207.1	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating			P7		
B4				**160.56**	**321.96**			**2.3 Roofs**											
C2	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		5.17	10.28	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		Dumper truck, 19 ton capacity, 100% fill rate	P2	3	
C2	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		0.05	0.09	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic		Trailer combination, 40 ton capacity, 100% fill rate	P7		
C2	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		0.83	1.65	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		Dumper truck, 19 ton capacity, 100% fill rate	P3	1	
C2	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		0.17	0.33	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating		Dumper truck, 19 ton capacity, 100% fill rate	P7	1	
C2				**6.25**	**12.42**			**2.3 Roofs**											
C3	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		1.23	1.23	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles		Concrete recycling, concrete crushing	P2	3	
C3	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		48.46	48.46	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic		PVC products incineration	P7		
C3				**49.68**	**49.68**			**2.3 Roofs**											
C3-balancing	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x20 mm, 2100 kg/m3 (Eternit)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	22.4	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Other precast concrete productw	EPD Eternit Dachstein Heidelberg Eternit Dachstein Verona Eternit Dachstein Göteborg Eternit Dachstein Kapstadt Eternit AG	Concrete roof tiles			P2	3	
C3-balancing	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP felt, non-woven PE felt (One Click LCA)	75.18 m2		0	0	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Plastic membranes	One Click LCA	Geotextile, generic			P7		
C3-balancing								**2.3 Roofs**											
C4	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	75.18 m2		1.47	1.47	Floor slabs, ceilings, roofing decks, beams and roof	50	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		Inert materials landfilling	P3	1	
C4	Waterproof, protective, flexible coating, 1.5 kg/l, Lastogum (PCI Augsburg)	75.18 m2		0.29	0.29	Floor slabs, ceilings, roofing decks, beams and roof	1	2.3 Roofs		Waterproofing roofing system incl. insulation and concrete tiles, for UK		Sealants (silicone and others)	Dekobau.dat 2017-1, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating		Inert materials landfilling	P7	1	
C4				**1.76**	**1.76**			**2.3 Roofs**											

C4-balancing	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	75.19	m2	0	0	Floor slabs, ceilings, roofing decks, beams and roof	50		2.3.Roofs			Waterproofing roofing system incl. insulation and concrete tiles, for UK	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
C4-balancing	Waterproof, protective, flexible coating, 1.5 kg/l, Lemtogum (PCI Augsburg)	75.19	m2	0	0	Floor slabs, ceilings, roofing decks, beams and roof	1		2.3.Roofs			Waterproofing roofing system incl. insulation and concrete tiles, for UK	Sealants (silicone and others)	Oekobau.dat 2017+I, EPD Wasserdichte, flexible Schutzschicht PCI Lastogum unter Keramikbelägen in Dusche und Bad PCI Augsburg GmbH	Waterproof, protective, flexible coating		P7	1
C4-balancing									**2.3.Roofs**										
D	Concrete roof tiles, Avg. thickness per m2: 22.4 mm, 3344x420 mm, 2100 kg/m3 (Edered)	75.19	m2	-78.88	-157.6	Floor slabs, ceilings, roofing decks, beams and roof	22.4		2.3.Roofs			Waterproofing roofing system incl. insulation and concrete tiles, for UK	Other precast concrete products	EPD Ebernit Dachstein Heidelberg Ebernit Dachstein Verona Ebernit Dachstein Göteburg Ebernit Dachstein Kippstadt Ebernit AG	Concrete roof tiles		P2	3
D	Geotextile, generic, 312 g/m2 (1.02 oz/ft2), Composition: PP net, non-woven PE felt (One Click LCA)	75.19	m2	-39.04	-78.08	Floor slabs, ceilings, roofing decks, beams and roof	1		2.3.Roofs			Waterproofing roofing system incl. insulation and concrete tiles, for UK	Plastic membranes	One Click LCA	Geotextile, generic		P7	1
D					**2106.56**	**2273.76**			**2.3.Roofs**										
A1-A3 Product stage (excl. sequestered carbon)	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		354.2	354.2	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
A1-A3 Sequestered Carbon	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		-999	-999	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
A4	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		15.46	15.46	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
A5-3	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		7.08	7.08	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
B3	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		0	0	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
C2	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		1.02	2.06	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase	Trailer combination, 40 ton capacity, 100% fill rate	P5	4
C3	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		6.92	6.92	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase	Waste wood and wood products incineration	P5	4
C3-balancing	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		990	990	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
D	Quarter turn wooden staircase, width: 1.2 m, 98 kg/m (One LCA)	3.0	pa		-180.92	-361.84	Other structures and materials	Staircase	2.4.1.Stair				Plain woodlitimber (softwood and hardwood)	One Click LCA	Quarter turn wooden staircase		P5	4
					385.3	**396.32**			**2.4.1.Stair**										
A1-A3 Product stage (excl. sequestered carbon)	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	35.65	35.65	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A1-A3 Product stage (excl. sequestered carbon)	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	106.63	106.63	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A1-A3 Product stage (excl. sequestered carbon)	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	5110.8	5110.8	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
A1-A3 Product stage (excl. sequestered carbon)	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	7667.85	7667.85	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
A1-A3 Product stage (excl. sequestered carbon)	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	5532.9	5532.9	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
A1-A3 Product stage (excl. sequestered carbon)	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	581.98	581.98	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Product stage (excl. sequestered carbon)	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	84.5	84.5	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
A1-A3 Product stage (excl. sequestered carbon)					**19120.55**	**19120.55**			**2.5.External envelope including roof finishes**										
A1-A3 Sequestered Carbon	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A1-A3 Sequestered Carbon	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A1-A3 Sequestered Carbon	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	0	0	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
A1-A3 Sequestered Carbon	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	0	0	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
A1-A3 Sequestered Carbon	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	0	0	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
A1-A3 Sequestered Carbon	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	0	0	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Sequestered Carbon	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	0	0	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
A1-A3 Sequestered Carbon									**2.5.External envelope including roof finishes**										
A4	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	2.92	2.92	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A4	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	8.73	8.73	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A4	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	459.6	459.6	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
A4	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	714.2	714.2	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
A4	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	81.04	81.04	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
A4	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	38.65	38.65	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A4	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	11.86	11.86	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
A4					**1317.06**	**1317.06**			**2.5.External envelope including roof finishes**										
A5-3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	1.56	1.56	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A5-3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	4.67	4.67	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
A5-3	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	338.95	338.95	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
A5-3	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	84.62	84.62	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
A5-3	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	394.6	394.6	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
A5-3	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	26.65	26.65	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A5-3	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	4	4	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
A5-3					**855.09**	**855.09**			**2.5.External envelope including roof finishes**										
B3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
B3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
B3	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	0	0	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
B3	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	0	0	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
B3	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	0	0	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
B3	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	0	0	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
B3	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	0	0	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
B3									**2.5.External envelope including roof finishes**										
B4	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	51.04	103.85	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
C2	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	10.15	m2	0.22	0.45	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties	Dumper truck, 19 ton capacity, 100% fill rate	tkm2	4
C2	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM)	30.36	m2	0.67	1.33	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/bricklaying)	Oekobau.dat 2017+I, EPD Mineralische Werktrörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriverband WerkMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties	Dumper truck, 19 ton capacity, 100% fill rate	tkm2	4
C2	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.6	m2	35.1	70.2	External walls and facade	102.56	0 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK	Dumper truck, 19 ton capacity, 100% fill rate	tkm33	4
C2	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 18 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	36.31	72.73	External walls and facade	215.64	0mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic	Dumper truck, 19 ton capacity, 100% fill rate	tkm2	3
C2	Stone wool insulation panels, unfaced, generic; L = 0.037 W/mK, R = 2.70 m2K/W (15.92°Fh/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)); Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	6.19	12.38	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic	Dumper truck, 19 ton capacity, 100% fill rate	tkm3	7
C2	Gypsum plaster board, regular, generic, 6.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	22.15	44.29	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Dumper truck, 19 ton capacity, 100% fill rate	tkm232	9
C2	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	0.91	1.82	External walls and facade	13		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017+I, EPD GIPSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster	Dumper truck, 19 ton capacity, 100% fill rate	tkm232	9

C2				**101.66**	**263.15**				**2.5.External envelope including roof finishes**												
C3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	10.15	m2	0.655	0.655	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties	Concrete recycling, concrete crushing	P2	4
C3	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	30.36	m2	0.18	0.18	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties	Concrete recycling, concrete crushing	P2	4
C3	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.64	m2	8.33	8.33	External walls and facade	102.5	60 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK	Concrete recycling, concrete crushing	P33	4
C3	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 19 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	8.62	8.62	External walls and facade	21.54	46mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic	Concrete recycling, concrete crushing	P2	3
C3	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	1.40	1.40	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Recycling of gypsum board, gypsum pulverising and handling	P232	6
C3				**18.58**	**18.58**				**2.5.External envelope including roof finishes**												
C3-balancing	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	10.15	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
C3-balancing	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	30.36	m2	0	0	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
C3-balancing	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.64	m2	0	0	External walls and facade	102.5	60 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
C3-balancing	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 19 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	0	0	External walls and facade	21.54	46mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
C3-balancing	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	0	0	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	6
C3-balancing									**2.5.External envelope including roof finishes**												
C4	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.62 ft2*h/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	11	11	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic	Inert materials landfilling	P3	7
C4	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	1.67	1.67	External walls and facade	15		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017-I, EPD GIFSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster	Inert materials landfilling	P232	9
C4				**12.68**	**12.68**				**2.5.External envelope including roof finishes**												
C4-balancing	Stone wool insulation panels, unfaced, generic, L = 0.037 W/mK, R = 2.70 m2K/W (15.62 ft2*h/BTU), 150 kg/m3 (9.36 lbs/ft3) (applicable for densities: 100-150 kg/m3 (6.24-9.36 lbs/ft3)), Lambda=0.037 W/(m.K) (One Click LCA)	169	m2	0	0	External walls and facade	150		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Stone wool insulation	One Click LCA	Stone wool insulation panels, unfaced, generic		P3	7
C4-balancing	Gypsum plaster, 1100 kg/m3 (Bundesverband der Gipsindustrie)	169	m2	0	0	External walls and facade	15		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Gypsum plaster (interior applications)	Oekobau.dat 2017-I, EPD GIFSPUTZ Bundesverband der Gipsindustrie e.V.	Gypsum plaster		P232	9
C4-balancing									**2.5.External envelope including roof finishes**												
D	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	10.15	m2	-1.24	-2.48	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
D	Masonry mortar/facing wall mortar/mortar with special properties, 1500 kg/m3, EPD coverage: >1500 kg/m3 (WM	30.36	m2	-3.71	-7.43	External walls and facade	10		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Mortar (masonry/brickla(ying)	Oekobau.dat 2017-I, EPD Mineralische Werkmörtel: Mauermörtel - Vormauermörtel/Mörtel mit besonderen Eigenschaften Industriewerkstand WeirMörtel e.V. (WM)	Masonry mortar/facing wall mortar/mortar with special properties		P2	4
D	Red brick, average production, UK, 215 mm x 102.5 mm x 65 mm, 2.13 kg/unit, 1485 kg/m3 (Brick Development Association (BDA) Ltd (2019))	157.64	m2	-50	-99.92	External walls and facade	102.5	60 bricks (65 mm x 215 mm x 102 mm) per m2	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Brick, common clay brick	EPD BDA Generic Brick, The Brick Development Association	Red brick, average production, UK		P33	4
D	Lightweight concrete block, with expanded clay aggregate, generic, 650 kg/m3 (40.6 lbs/ft3), 19 kg/block (39.7 lbs/block), 0.5x0.3x0.185 mm (0.019x0.012x0.007 m) (One Click LCA)	177.85	m2	-286.49	-572.98	External walls and facade	21.54	46mm x 215mm x 215mm (10 blocks per m2)	2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Aerated/Autoclaved concrete products	One Click LCA	Lightweight concrete block, with expanded clay aggregate, generic		P2	3
D	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	169	m2	-2.31	-4.61	External walls and facade	12.5		2.5.External envelope including roof finishes			Masonry cavity wall with partial fill and aircrete block + plasterboard inner leaf, U-value 0.18	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	6
D									**2.5.External envelope including roof finishes**												
A1-A3 Product stage (excl. sequestered carbon)				**21477.44**	**21630.91**				**2.6.Windows and external doors**												
A1-A3 Product stage (excl. sequestered carbon)	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	38.66	38.66	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
A1-A3 Product stage (excl. sequestered carbon)	Window - uPVC frame DG	24.19	m2	1950.2	1950.2	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
A1-A3 Product stage (excl. sequestered carbon)	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	515.26	515.26	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
A1-A3 Product stage (excl. sequestered carbon)				**2594.12**	**2594.12**				**2.6.Windows and external doors**												
A1-A3 Sequestered Carbon	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	-86.17	-86.17	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
A1-A3 Sequestered Carbon	Window - uPVC frame DG	24.19	m2	-19	-19	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
A1-A3 Sequestered Carbon	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	-437.58	-437.58	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
A1-A3 Sequestered Carbon				**-742.76**	**-742.76**				**2.6.Windows and external doors**												
A4	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	16.98	16.98	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
A4	Window - uPVC frame DG	24.19	m2	273.45	273.45	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
A4	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	159.52	159.52	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
A4				**449.96**	**449.96**				**2.6.Windows and external doors**												
A5-3	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0	0	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
A5-3	Window - uPVC frame DG	24.19	m2	0	0	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
A5-3	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	28.08	28.08	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
A5-3				**28.08**	**28.08**				**2.6.Windows and external doors**												
B3	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0	0	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
B3	Window - uPVC frame DG	24.19	m2	0	0	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
B3	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	0	0	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
B3									**2.6.Windows and external doors**												
B4	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	28.15	56.3	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
B4	Window - uPVC frame DG	24.19	m2	1126.04	2253.1	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
B4	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	341.34	681.28	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
B4				**1496.17**	**2990.82**				**2.6.Windows and external doors**												
C2	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0.58	0.58	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m	Trailer combination, 40 ton capacity, 100% fill rate	P6	6
C2	Window - uPVC frame DG	24.19	m2	14.51	29.02	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG	Trailer combination, 40 ton capacity, 100% fill rate	P6	6
C2	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	0.83	1.66	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant	Trailer combination, 40 ton capacity, 100% fill rate	P6	6
C2				**15.42**	**30.6**				**2.6.Windows and external doors**												
C3	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0.48	0.48	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m	Waste wood and wood products incineration	P6	6
C3	Window - uPVC frame DG	24.19	m2	0.19	0.19	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG	Recycling of glass, glass cullleting and handling	P6	6
C3	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	4.59	4.59	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant	Waste wood and wood products incineration	P6	6
C3				**5.26**	**5.26**				**2.6.Windows and external doors**												
C3-balancing	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	65.1	65.1	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
C3-balancing	Window - uPVC frame DG	24.19	m2	10	10	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
C3-balancing	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	859.5	859.5	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
C3-balancing				**714.66**	**714.66**				**2.6.Windows and external doors**												
C4	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0.026	0.026	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m	Inert materials landfilling	P6	6
C4	Window - uPVC frame DG	24.19	m2	0.36	0.36	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG	Inert materials landfilling	P6	6
C4	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	0.23	0.23	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant	Inert materials landfilling	P6	6
C4				**0.62**	**0.62**				**2.6.Windows and external doors**												
D	External wood door, 2.1 x 1 m (One Click LCA)	1	unit	0	0	Windows and doors		Entrance door	2.6.Windows and external doors				Wood and wood board doors	One Click LCA	External wood door, 2.1 x 1 m		P6	6
D	Window - uPVC frame DG	24.19	m2	-7.95	-15.89	Windows and doors		External glazing	2.6.Windows and external doors				PVC frame windows	RWI WLC Conventions v1	Window - uPVC frame DG		P6	6
D	Internal wooden doorleaf, fire resistant, 1.981x0.838 m, 17.5 kg/m2 (JELD-WEN)	24.7	m2	-1	-2	Windows and doors		Internal doors	2.6.Windows and external doors				Wood and wood board doors	EPD MOULDED PANEL INTERNAL DOORS FIRE DOOR FD30, UNGLAZED	Internal wooden doorleaf, fire resistant		P6	6
D									**2.6.Windows and external doors**												
A1-A3 Product stage (excl. sequestered carbon)				**4671.56**	**5991.67**				**2.6.Windows and external doors**												
A1-A3 Product stage (excl. sequestered carbon)	Planed timber, conifer (Treindustrien)	25.65	m2	154.4	154.4	Internal walls and non-bearing structures	10	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Plain wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	4
A1-A3 Product stage (excl. sequestered carbon)	Glass wool insulation panels, unfaced, generic, L = 0.031 W/mK, R = 3.23 m2K/W (18.92 ft2*h/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)), Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	553.28	553.28	Internal walls and non-bearing structures	100	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
A1-A3 Product stage (excl. sequestered carbon)	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	720.2	720.2	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Product stage (excl. sequestered carbon)	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	720.2	720.2	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Product stage (excl. sequestered carbon)				**2148.03**	**2148.03**				**2.7.Internal walls and partitions**												
A1-A3 Sequestered Carbon	Planed timber, conifer (Treindustrien)	25.65	m2	-1678.48	-1678.48	Internal walls and non-bearing structures	10	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Plain wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	4
A1-A3 Sequestered Carbon	Glass wool insulation panels, unfaced, generic, L = 0.031 W/mK, R = 3.23 m2K/W (18.92 ft2*h/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)), Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	0	0	Internal walls and non-bearing structures	100	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
A1-A3 Sequestered Carbon	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Sequestered Carbon	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A1-A3 Sequestered Carbon				**-1678.48**	**-1678.48**				**2.7.Internal walls and partitions**												
A4	Planed timber, conifer (Treindustrien)	25.65	m2	30.69	30.69	Internal walls and non-bearing structures	10	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Plain wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	4
A4	Glass wool insulation panels, unfaced, generic, L = 0.031 W/mK, R = 3.23 m2K/W (18.92 ft2*h/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)), Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	9.47	9.47	Internal walls and non-bearing structures	100	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
A4	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	47.6	47.6	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A4	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	47.6	47.6	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9

A4				**135.71**	**135.71**				**2.7.Internal walls and partitions**									
A5-3	Planed timber, conifer (Treindustrien)	25.95	m2	4.68	4.68	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	4
A5-3	Glass wool insulation panels, unfaced, generic; L = 0.031 W/mK, R = 3.23 m2K/W (18.92°Fhr/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)); Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	39.08	39.08	Internal walls and non-bearing structures	190	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
A5-3	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	32.98	32.98	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A5-3	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	32.98	32.98	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
A5-3				**169.4**	**169.4**				**2.7.Internal walls and partitions**									
B5	Planed timber, conifer (Treindustrien)	25.95	m2	0	0	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	0
B5	Glass wool insulation panels, unfaced, generic; L = 0.031 W/mK, R = 3.23 m2K/W (18.92°Fhr/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)); Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	0	0	Internal walls and non-bearing structures	190	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
B5	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
B5	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
B5									**2.7.Internal walls and partitions**									
C2	Planed timber, conifer (Treindustrien)	25.95	m2	2.02	4.04	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer	Trailer combination, 40 ton capacity, 100% fill rate	P5	4
C2	Glass wool insulation panels, unfaced, generic; L = 0.031 W/mK, R = 3.23 m2K/W (18.92°Fhr/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)); Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	0.73	1.46	Internal walls and non-bearing structures	190	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic	Dumper truck, 19 ton capacity, 100% fill rate	P3	7
C2	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	27.38	54.76	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Dumper truck, 19 ton capacity, 100% fill rate	P232	9
C2	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	27.38	54.76	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Dumper truck, 19 ton capacity, 100% fill rate	P232	9
C2				**57.52**	**115.06**				**2.7.Internal walls and partitions**									
C3	Planed timber, conifer (Treindustrien)	25.95	m2	13.74	13.74	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer	Waste wood and wood products incineration	P5	4
C3	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	1.77	1.77	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Recycling of gypsum board, gypsum pulverising and handling	P232	9
C3	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	1.77	1.77	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic	Recycling of gypsum board, gypsum pulverising and handling	P232	9
C3				**17.26**	**17.26**				**2.7.Internal walls and partitions**									
C3-balancing	Planed timber, conifer (Treindustrien)	25.95	m3	1678.4	1678.4	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	0
C3-balancing	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
C3-balancing	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	0	0	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
C3-balancing				**1678.40**	**1678.40**				**2.7.Internal walls and partitions**									
C4	Glass wool insulation panels, unfaced, generic; L = 0.031 W/mK, R = 3.23 m2K/W (18.92°Fhr/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)); Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	1.28	1.28	Internal walls and non-bearing structures	190	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic	Inert materials landfilling	P3	7
C4-balancing	Glass wool insulation panels, unfaced, generic; L = 0.031 W/mK, R = 3.23 m2K/W (18.92°Fhr/BTU), 25 kg/m3 (1.56 lbs/ft3), (applicable for densities: 0-25 kg/m3 (0-1.56 lbs/ft3)); Lambda=0.031 W/(m.K) (One Click LCA)	197.75	m2	0	0	Internal walls and non-bearing structures	190	Quantity adjusted so that insulation fills the gaps of stud wall	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Glass wool insulation	One Click LCA	Glass wool insulation panels, unfaced, generic		P3	7
D	Planed timber, conifer (Treindustrien)	25.95	m2	-358.38	-716.76	Internal walls and non-bearing structures	90	Quantity adjusted for stud wall per 1 m2 of wall area with 600 mm spacing	2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Sawn wood/timber (softwood and hardwood)	Structural timber of spruce and pine, Norwegian Wood Industry Federation	Planed timber, conifer		P5	0
D	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	-2.89	-5.77	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
D	Gypsum plaster board, regular, generic, 8.5-25 mm (0.25-0.98 in), 10.725 kg/m2 (2.20 lbs/ft2) (for 12.5 mm/0.49 in), 858 kg/m3 (53.6 lbs/ft3) (One Click LCA)	223.7	m2	-2.89	-5.77	Internal walls and non-bearing structures	13		2.7.Internal walls and partitions			Wooden stud internal wall assembly, 100 mm, incl. mineral wool insulation, for UK	Regular gypsum board	One Click LCA	Gypsum plaster board, regular, generic		P232	9
D									**2.7.Internal walls and partitions**									
A1-A3 Product stage (excl. sequestered carbon)	Plaster	8.19	m3	1809.9	1809.9	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
A1-A3 Product stage (excl. sequestered carbon)	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	203.01	203.01	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
A1-A3 Product stage (excl. sequestered carbon)				**2013.06**	**2013.06**				**3.Finishes**									
A1-A3 Sequestered Carbon	Plaster	8.19	m3	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
A1-A3 Sequestered Carbon	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
A1-A3 Sequestered Carbon									**3.Finishes**									
A4	Plaster	8.19	m3	265.7	265.7	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
A4	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	1.44	1.44	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
A4				**268.10**	**268.10**				**3.Finishes**									
A5-3	Plaster	8.19	m3	88.15	88.15	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
A5-3	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	12.26	12.26	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
A5-3				**88.40**	**88.40**				**3.Finishes**									
B5	Plaster	8.19	m3	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
B5	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
B5									**3.Finishes**									
B4	Plaster	8.19	m3	1119.6	2239.2	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
B4	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	716.12	1085.9	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
B4				**1836.02**	**3325.14**				**3.Finishes**									
C2	Plaster	8.19	m3	20.25	40.74	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster	Dumper truck, 19 ton capacity, 100% fill rate	P232	9
C2	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	0.073	0.15	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint	Dumper truck, 19 ton capacity, 100% fill rate	P7	9
C2				**20.48**	**40.89**				**3.Finishes**									
C4	Plaster	8.19	m3	36.27	36.27	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster	Inert materials landfilling	P232	9
C4	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	0.13	0.13	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint	Inert materials landfilling	P7	9
C4				**36.34**	**36.34**				**3.Finishes**									
C4-balancing	Plaster	8.19	m3	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Gypsum plaster (interior applications)	RHH WLC Conventions v1	Plaster		P232	9
C4-balancing	Alkyd emulsion-based paint, 1.2 kg/l, pigment volume concentration 15.8 v%, solvent weight 1 m% (One Click LCA)	50	kg	0	0	Finishes and coverings		External walls, internal walls, ceilings	3.Finishes				Paints, coatings and lacquers	One Click LCA	Alkyd emulsion-based paint		P7	9
C4-balancing									**3.Finishes**									
				4272.41	**8702.05**				**3.Finishes**									
B6-electricity	Electricity, UK 2023, based on energy supplementary table of Whole-life carbon assessment RICS, 2nd edition	643	kWh	25104.09	113944.6	Electricity use		2PER			Other uses (B6,D		Electricity		Electricity, UK 2023		P8	
B7	Water supply, UK 2023	240.9	m3	510.76	2053.0	Total water consumption		# person 110 l/p/d		B7.1 - Essential Building-integrated systems			Water		Water supply, UK 2023		P8	
				25614.85	**116458.28**													