Statement of Verification

BREG EN EPD No: 000762 Issue: 01

This is to verify that the Environmental Product Declaration provided by:

QIC Trims Limited

are in accordance with the requirements of:

EN 15804:2012+A2:2019

and

BRE Global Scheme Document SD207

This declaration is for:
1 unit of Trims, boxes and specials fabricated from Flat Rolled Material with an average weight of 0.85kg/unit

Company Address

QIC Trims Limited,
Radclive Road,
Gawcott,
Buckingham,
MK18 4BL

Signed for BRE Global Limited — Hayley Thomson, Operator

Date of this Issue	Date of First Issue	Expiry Date
17 February 2026	17 February 2026	16 February 2031

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Environmental Product Declaration

EPD Number: 000762

General Information

EPD Programme Operator	Applicable Product Category Rules
BRE Global Watford, Herts WD25 9XX United Kingdom	BRE 2025 Product Category Rules (PN 514 Rev 3.2) for Type III environmental product declaration of construction products to EN 15804:2012+A2:2019
Commissioner of LCA study	**LCA consultant/Tool**
QIC Trims Limited, Radclive Road, Gawcott, Buckingham, MK18 4BL	LCA Consultant: Chi Zhang/ Francis Yu LCA Tool: BRE LINA A2
Declared/Functional Unit	**Applicability/Coverage**
1 unit of Trims, boxes and specials fabricated from Flat Rolled Material with an average weight of 0.85kg/unit	Product Average.
EPD Type	**Background database**
Cradle to Gate with Module C and D	Ecoinvent v3.8

Demonstration of Verification
CEN standard EN 15804 serves as the core PCR [a]
Independent verification of the declaration and data according to EN ISO 14025:2010 ☒Internal ☐ External
(Where appropriate [b])Third party verifier: Roger Connick
a: Product category rules b: Optional for business-to-business communication; mandatory for business-to-consumer communication (see EN ISO 14025:2010, 9.4)

Comparability
Environmental product declarations from different programmes may not be comparable if not compliant with EN 15804:2012+A2:2019. Comparability is further dependent on the specific product category rules, system boundaries and allocations, and background data sources. See Clause 5.3 of EN 15804:2012+A2:2019 for further guidance

Information modules covered

Product			Construction		Use stage							End-of-life					Benefits and loads beyond the system boundary
					Related to the building fabric					Related to the building							
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D
Raw materials supply	Transport	Manufacturing	Transport to site	Construction – Installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction demolition	Transport	Waste processing	Disposal		Reuse, Recovery and/or Recycling potential
☑	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☑	☑	☑		☑

Note: Ticks indicate the Information Modules declared.

Manufacturing site(s)

QIC Trims Limited,
Radclive Road,
Gawcott,
Buckingham,
MK18 4BL

Construction Product:

Product Description

QIC Metalwork systems are bespoke sections made in-house utilising sheet steel and aluminium, and all QIC Metalwork Systems could be produced via trims, boxes and specials fabricated from flat rolled material. Depending on the requirement sheet metal is put through various processes including turret punch, guillotine, welding assembly and press brake. These sections are used in interior fit out and working alongside our in-house technical team, the final design once approved moves seamlessly into production. QIC works with steel and aluminium from 0.7mm thickness up to 3mm and up to 400mm lengths. Preformed mesh tiles are also prepared, cut, powder coated and packed for despatch.

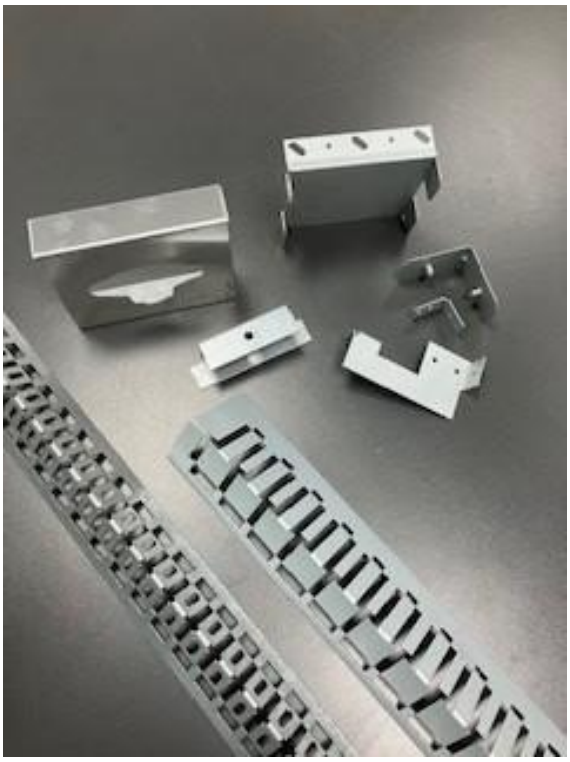
This EPD is using the 0.85kg/unit average weight of all trims, boxes and specials fabricated from flat rolled material. The total production quantity (kg) of the products has been divided by the total production in unit to get the average weight per unit. The EPD covers all trims, boxes and specials fabricated from flat rolled material as these products have the same manufacturing process and composition. The products can be sold independently and can be used independently for the internal fit out of buildings.

The products covered in this EPD are all bespoke and different. The EPD users can use the EPD results to calculate the impacts for 1 unit of bespoke products. For the weight of bespoke products, please contact QIC Trims Limited for details: www.qic-trims.com.

Technical Information

Property	Value, Unit
Aluminium and aluminium alloys. Chemical composition and form of wrought products. Chemical composition and form of products	BS EN 573-3:2019+A2:2023

Note: The above technical properties apply to all products covered in this EPD. The technical information is gathered from Qic Trims' supplier EPD, please contact Qic Trims for details QIC Trims - QIC Interior Specialists \| QicTrims Ltd.



Main Product Contents

Material/Chemical Input	%
Aluminium	30.28%
Galvanised steel	59.63%
Powder paint	5.99%
Stainless Steel	4.1%

Note: The above product contents apply to all products covered in this EPD.

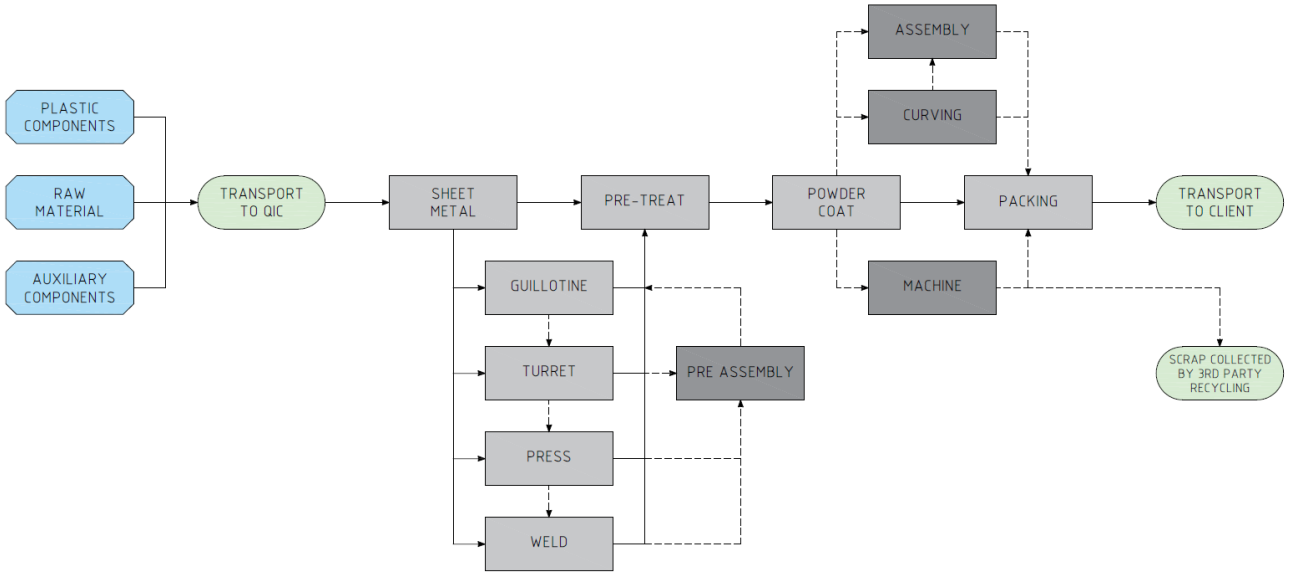
Manufacturing Process

QIC Trims Limited's factory in Buckinghamshire is where the flat rolled products are manufactured into Steel or Aluminium trims and components. Material is cut, formed, welded, assembled and powder coated ready for packing and despatch.

Worldwide, approximately 2/3 of total crude streel production is via the basic oxygen furnace (BOF) process, also known as the integrated route. It is the method of steelmaking generally used for the production of flats i.e. sheet metal and plate, where the required characteristic is formability. The BOF process uses approximately 25%-30% old steel to make new and is optimized at that level. Our supplier also utilizes approximately 1-6% of post-consumer recycled steel at any time.

The waste on all the products is weighed in and recycled through a 3rd party.

Process flow diagram



End of Life

There is currently no process in place to process the product waste from the manufacturer. Therefore, an industrial average end-of-life scenario of steel waste and aluminium waste has been used according to BRE 2025 Product Category Rules (PN 514 Rev 3.2), which is 95% to recycling and 5% to landfill.

Life Cycle Assessment Calculation Rules

Declared / Functional unit description

1 unit of Trims, boxes and specials fabricated from Flat Rolled Material with an average weight of 0.85kg/unit.

System boundary

This is a cradle-to-gate with modules C and D LCA, reporting all production life cycle stages of modules A1 to A3 and end of life stages C1-C4, and D in accordance with EN 15804:2012+A2:2019 and BRE 2025 Product Category Rules (PN 514 Rev 3.2).

Data sources, quality and allocation

Specific primary data derived from QIC Trims Limited's production process in the Gawcott factory, have been modelled using the LINA A2 LCA and the ecoinvent 3.8 database. In accordance with the requirements of EN15804:2012 + A2:2019, the most current available data has been used. The manufacturer-specific data from QIC Trims Limited covers one year (01/01/2023 – 31/12/2023). Secondary data has been obtained for all other upstream and downstream processes that are beyond the control of the manufacturer (i.e., raw material production) from the ecoinvent 3.8 database. All ecoinvent datasets are complete within the context used and conform to the system boundary and the criteria for the exclusion of inputs and outputs, according to the requirements specified in EN15804:2012+A2:2019.

QIC Trims Limited's Trims, boxes and specials fabricated from flat rolled material is not the only product manufactured at the Gawcott factory other products are manufactured along with it, so the allocation of energy, water, and waste is required, and this has been done by using the unit allocation in the provisions of the BRE PCR PN514 and EN 15804:2012+A2:2019. Site-wide values for energy, water and wastewater have been taken from bills. Figures for the raw materials, ancillary materials, and packaging were from actual usages. This LCA covers the manufacturing of QIC Trims Limited's Trims, boxes, and specials fabricated from flat-rolled material, which covers 21.3% of the factory production.

Quality Level	Geographical representativeness	Technical representativeness	Time representativeness
Very Good	Data from the area under study	Data from processes and products under study. Same state of technology applied as defined in goal and scope (i.e. identical technology).	Less than 3 years difference between the reference year according to the documentation, and the time period for which data are representative.

Specific UK datasets have been selected from the ecoinvent LCI for this LCA. The quality level of geographical and technical representativeness is therefore very good. The quality level of time representativeness is very good as the background LCI datasets are based on ecoinvent v3.8 which was compiled in 2021. Therefore, there is less than 3 years between the ecoinvent LCI reference year and the time period for which the LCA was undertaken.

UK consumption mix (2022) was used for electricity with an emissions factor of 0.239 kgCO2e/kWh.
UK Natural gas data (at industrial furnace) was used with an emissions factor of 0.232 kgCO2eq/kWh.
UK renewable electricity (roof, mono solar PV) was used with an emission factor of 0.125 kgCO2e/kWh.

Cut-off criteria

All processes associated with the manufacturing process have been included. All inputs and outputs have been included and all raw materials, packaging, transport, energy, water and wastes are included, except for direct emissions to air, water and soil, which are not measured. Upstream extraction and/or processing of inputs are included within the use of the background datasets within LINA. Chemicals for pre-treating

aluminium and steel surfaces has been omitted from the LCA as the chemical content applied is minimal. Diluted pretreat chemical waste has been counted as a non-production waste in the LCA.

LCA Results

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts									
			GWP-total	GWP-fossil	GWP-biogenic	GWP-luluc	ODP	AP	EP-freshwater
			kg CO_2 eq	kg CO_2 eq	kg CO_2 eq	kg CO_2 eq	kg CFC11 eq	mol H^+ eq	kg $(PO_4)^{3-}$ eq
Product stage	Raw material supply	A1	4.36E+00	4.33E+00	1.82E-02	7.69E-03	2.11E-07	3.74E-02	1.85E-03
	Transport	A2	4.29E-01	4.28E-01	3.65E-04	1.68E-04	9.91E-08	1.74E-03	2.76E-05
	Manufacturing	A3	1.63E-01	1.82E-01	-1.92E-02	1.94E-04	1.65E-08	6.20E-04	3.65E-05
	Total (Consumption grid)	A1-3	4.95E+00	4.94E+00	-6.54E-04	8.06E-03	3.26E-07	3.97E-02	1.91E-03
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	7.07E-03	7.06E-03	6.02E-06	2.77E-06	1.63E-09	2.87E-05	4.55E-07
	Waste processing	C3	1.02E-01	1.02E-01	4.48E-04	9.49E-05	1.10E-08	6.15E-04	2.02E-05
	Disposal	C4	1.19E-03	1.18E-03	8.81E-06	1.24E-06	2.76E-10	9.20E-06	3.17E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	-4.61E+00	-4.62E+00	1.36E-02	-5.59E-03	-1.42E-07	-2.81E-02	-1.43E-03

GWP-total = Global warming potential, total;
GWP-fossil = Global warming potential, fossil;
GWP-biogenic = Global warming potential, biogenic;
GWP-luluc = Global warming potential, land use and land use change;

ODP = Depletion potential of the stratospheric ozone layer;
AP = Acidification potential, accumulated exceedance; and
EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts									
			EP-marine	EP-terrestrial	POCP	ADP-mineral& metals	ADP-fossil	WDP	PM
			kg N eq	mol N eq	kg NMVOC eq	kg Sb eq	MJ, net calorific value	m^3 world eq deprived	disease incidence
Product stage	Raw material supply	A1	4.98E-03	1.05E-01	1.64E-02	9.70E-05	4.93E+01	1.76E+00	6.38E-07
	Transport	A2	5.24E-04	5.72E-03	1.75E-03	1.49E-06	6.48E+00	2.91E-02	3.70E-08
	Manufacturing	A3	1.56E-04	1.54E-03	5.10E-04	2.91E-06	3.80E+00	5.33E-02	7.36E-09
	Total (Consumption grid)	A1-3	5.66E-03	1.13E-01	1.86E-02	1.01E-04	5.96E+01	1.84E+00	6.82E-07
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario									
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	8.64E-06	9.44E-05	2.89E-05	2.46E-08	1.07E-01	4.81E-04	6.10E-10
	Waste processing	C3	1.90E-04	2.09E-03	5.80E-04	3.03E-06	9.48E-01	1.33E-02	1.30E-08
	Disposal	C4	2.85E-06	3.09E-05	9.03E-06	3.19E-09	2.37E-02	9.76E-04	1.68E-10
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	-4.82E-03	-5.05E-02	-1.58E-02	-3.92E-06	-4.21E+01	-5.23E-01	-3.73E-07

EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment;
EP-terrestrial = Eutrophication potential, accumulated exceedance;
POCP = Formation potential of tropospheric ozone;
ADP-mineral&metals = Abiotic depletion potential for non-fossil resources;
ADP-fossil = Depletion potential of the stratospheric ozone layer;
WDP = Water (user) deprivation potential, deprivation-weighted water consumption; and
PM = Particulate matter.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing environmental impacts							
			IRP	ETP-fw	HTP-c	HTP-nc	SQP
			kBq U^{235} eq	CTUe	CTUh	CTUh	dimensionless
Product stage	Raw material supply	A1	3.36E-01	1.36E+02	2.12E-08	1.25E-07	1.31E+01
	Transport	A2	3.33E-02	5.05E+00	1.64E-10	5.30E-09	4.45E+00
	Manufacturing	A3	6.15E-02	2.76E+00	1.03E-10	2.48E-09	2.85E+00
	Total (Consumption grid)	A1-3	4.31E-01	1.44E+02	2.15E-08	1.32E-07	2.04E+01
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario							
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	5.49E-04	8.33E-02	2.70E-12	8.74E-11	7.34E-02
	Waste processing	C3	6.97E-03	1.79E+00	5.72E-11	2.16E-09	5.53E-01
	Disposal	C4	1.19E-04	7.99E+00	9.16E-13	2.00E-11	4.77E-02
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	-5.78E-02	-1.21E+02	-7.07E-09	-1.01E-07	-8.66E+00

IRP = Potential human exposure efficiency relative to U235;
ETP-fw = Potential comparative toxic unit for ecosystems;
HTP-c = Potential comparative toxic unit for humans;
HTP-nc = Potential comparative toxic unit for humans; and
SQP = Potential soil quality index.

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, primary energy

			PERE	PERM	PERT	PENRE	PENRM	PENRT
			MJ	MJ	MJ	MJ	MJ	MJ
Product stage	Raw material supply	A1	5.34E+00	0.00E+00	5.34E+00	4.84E+01	4.57E-01	4.88E+01
	Transport	A2	9.12E-02	0.00E+00	9.12E-02	6.36E+00	0.00E+00	6.36E+00
	Manufacturing	A3	5.72E-01	4.51E-01	1.02E+00	3.25E+00	9.32E-01	4.18E+00
	Total (Consumption grid)	A1-3	6.01E+00	4.51E-01	6.46E+00	5.80E+01	1.39E+00	5.94E+01
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.50E-03	0.00E+00	1.50E-03	1.05E-01	0.00E+00	1.05E-01
	Waste processing	C3	4.81E-02	0.00E+00	4.81E-02	7.13E-01	0.00E+00	7.13E-01
	Disposal	C4	7.11E-04	0.00E+00	7.11E-04	2.34E-02	0.00E+00	2.34E-02
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	-2.35E+00	0.00E+00	-2.35E+00	-4.18E+01	0.00E+00	-4.18E+01

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials;
PERM = Use of renewable primary energy resources used as raw materials;
PERT = Total use of renewable primary energy resources;

PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials;
PENRM = Use of non-renewable primary energy resources used as raw materials;
PENRT = Total use of non-renewable primary energy resource

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Parameters describing resource use, secondary materials and fuels, use of water						
			SM	RSF	NRSF	FW
			kg	MJ net calorific value	MJ net calorific value	m^3
Product stage	Raw material supply	A1	3.48E-01	0.00E+00	0.00E+00	4.43E-02
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	7.22E-04
	Manufacturing	A3	3.66E-03	1.38E-06	0.00E+00	1.54E-03
	Total (Consumption grid)	A1-3	3.52E-01	1.38E-06	0.00E+00	4.65E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario						
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	1.19E-05
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	3.27E-04
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	2.31E-05
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	-1.40E-02

SM = Use of secondary material;
RSF = Use of renewable secondary fuels;
NRSF = Use of non-renewable secondary fuels;
FW = Net use of fresh water

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing waste categories					
			HWD	NHWD	RWD
			kg	kg	kg
Product stage	Raw material supply	A1	7.92E-01	3.66E+00	4.78E-05
	Transport	A2	7.14E-03	1.27E-01	4.38E-05
	Manufacturing	A3	8.07E-03	1.91E-01	1.90E-05
	Total (Consumption grid)	A1-3	8.07E-01	3.98E+00	1.11E-04
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario					
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	1.18E-04	2.09E-03	7.23E-07
	Waste processing	C3	5.47E-03	1.17E-01	4.06E-06
	Disposal	C4	2.24E-04	6.55E-02	1.30E-07
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	-8.56E-01	-6.07E+00	-4.76E-05

HWD = Hazardous waste disposed;
NHWD = Non-hazardous waste disposed;
RWD = Radioactive waste disposed

LCA Results (continued)

(MND = module not declared; MNR = module not relevant; INA = indicator not assessed; AGG = aggregated)

Other environmental information describing output flows – at end of life								
			CRU	MFR	MER	EE	Biogenic carbon (product)	Biogenic carbon (packaging)
			kg	kg	kg	MJ per energy carrier	kg C	kg C
Product stage	Raw material supply	A1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	A2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Manufacturing	A3	0.00E+00	3.81E-02	1.19E-08	1.13E-03	1.27E-03	1.32E-02
	Total (Consumption grid)	A1-3	0.00E+00	3.81E-02	1.19E-08	1.13E-03	1.27E-03	1.32E-02
Construction process stage	Transport	A4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Construction	A5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use stage	Use	B1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Maintenance	B2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Repair	B3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Replacement	B4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Refurbishment	B5	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational energy use	B6	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Operational water use	B7	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95% waste to recycling and 5% to landfill Scenario								
End of life	Deconstruction, demolition	C1	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Transport	C2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Waste processing	C3	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Disposal	C4	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Potential benefits and loads beyond the system boundaries	Reuse, recovery, recycling potential	D	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

CRU = Components for reuse;
MFR = Materials for recycling

MER = Materials for energy recovery;
EE = Exported Energy

Scenarios and additional technical information

Scenarios and additional technical information			
Scenario	Parameter	Units	Results
C1 to C4 End of life,			
C1 - Deconstruction	In the LCA module C1 for trims, boxes and specials fabricated from Flat rolled material, designed for longevity, are only dismantled with the whole building. Their removal is energy-efficient and straightforward, requiring minimal specialized equipment. Considering their potential for recycling or reuse and the low energy involved in dismantling, the environmental impact in Module C1 is negligible. Therefore, there is no data will be computed in this phase. 100% recovery rate of the product has been assumed at its end of life.		
C2 – End of Life transport	50km by road has been modelled for module C2 as a typical distance from the demolition site to factory. However, end-users of the EPD can use this information to calculate the impacts of a bespoke transport distance for module C2 if required.	Litres per km	0.227
	Distance: Deconstruction unit to pre-processing unit	km	50
C3 – Waste Processing	In the waste processing stage of the Trims, boxes, and specials fabricated from flat-rolled material, industrial average steel and aluminium end-of-life scenario has been used, i.e. 95% to recycling and 5% to landfill in accordance with BRE PN514 EN15804+A2 PCR V3.2. The products are made of 30.28% of aluminium, 63.73% of steel. i.e. 95% aluminium waste to recycling (0.85*30.28%*95%= 0.244511 kg), 95% steel waste to recycling (0.85*63.73%*95%= 0.51462 kg).		
	Aluminium Sheet waste to recycling	kg	0.244511
	Steel waste to recycling	kg	0.51462
C4 - Disposal	In the waste processing stage of the Trims, boxes, and specials fabricated from flat-rolled material, industrial average steel and aluminium end-of-life scenario has been used, i.e. 95% to recycling and 5% to landfill in accordance with BRE PN514 EN15804+A2 PCR V3.2. The products are made of 30.28% of aluminium, 63.73% of steel. i.e. 5% aluminium waste goes to landfill (0.85*30.28%*5%= 0.012869 kg), 5% steel waste goes to landfill (0.85*63.73%*5%= 0.027085 kg). The remaining 5.99% of powder paint is hardly to be collected and processed in the reality. Therefore, this part of waste will be sent to landfill, i.e. 0.85*4.96%= 0.050915 kg.		
	Aluminium Sheet waste to landfill	kg	0.012869
	Stainless Steel waste to landfill	kg	0.027085
	Paint waste to landfill	kg	0.050915

Scenarios and additional technical information			
Scenario	Parameter	Units	Results
Module D	Benefits and loads beyond the system boundary (Module D) account for the environmental benefits and loads resulting from the steel and aluminium, which are collected for recycling at the end of their life. These benefits are calculated by excluding the pre-existing recycled materials used in the primary process. At the end of life, 1 unit of trims, boxes and specials fabricated from flat rolled material becomes 0.799085kg of recyclable material (i.e. 30.28% of aluminium, 63.73% of steel). The background data of aluminium sheet contains 25.9% of post-consumer recycled content. So only 74.1% of virgin content of aluminium can be reported in Module D for benefits., i.e. 74.1%*0.244511= 0.18118 kg. Out of all steel inputs, stainless steel makes up 4.1%, the remaining (including pain) will be treated as galvanised steel, i.e. 95.9% The background data of stainless steel contains 57.3% of post-consumer recycled content. So only 42.7% of virgin content of aluminium can be reported in Module D for benefits., i.e. 4.1%*42.7%*0.51462 kg= 0.00901 kg. The background data of galvanised steel contains 37.8% of post-consumer recycled content. So only 62.2% of virgin content of aluminium can be reported in Module D for benefits., i.e. 95.9%*62.2%*0.51462 kg= 0.30697 kg. In total, 0.00901 + 0.30697 = 0.31598 kg of steel can be claimed for benefits in Module D.		
	Benefits due to recycling of aluminium	kg	0.18118
	Benefits due to recycling of steel	kg	0.31598

Interpretation

Out of the total mass of input materials for Trims, boxes and specials fabricated from Flat Rolled Material, aluminium accounts for 30.28%, galvanised steel accounts for 59.63%, powder paint accounts for 5.99%, and stainless steel account for the remaining of 4.1%. The bulk of the environmental impacts and primary energy demand are attributed to the manufacturing phase, covered by information modules A1-A3 of EN15804:2012+A2:2019.

As a result, aluminium contributes the most on overall environmental impacts, followed by galvanised steel and transport.

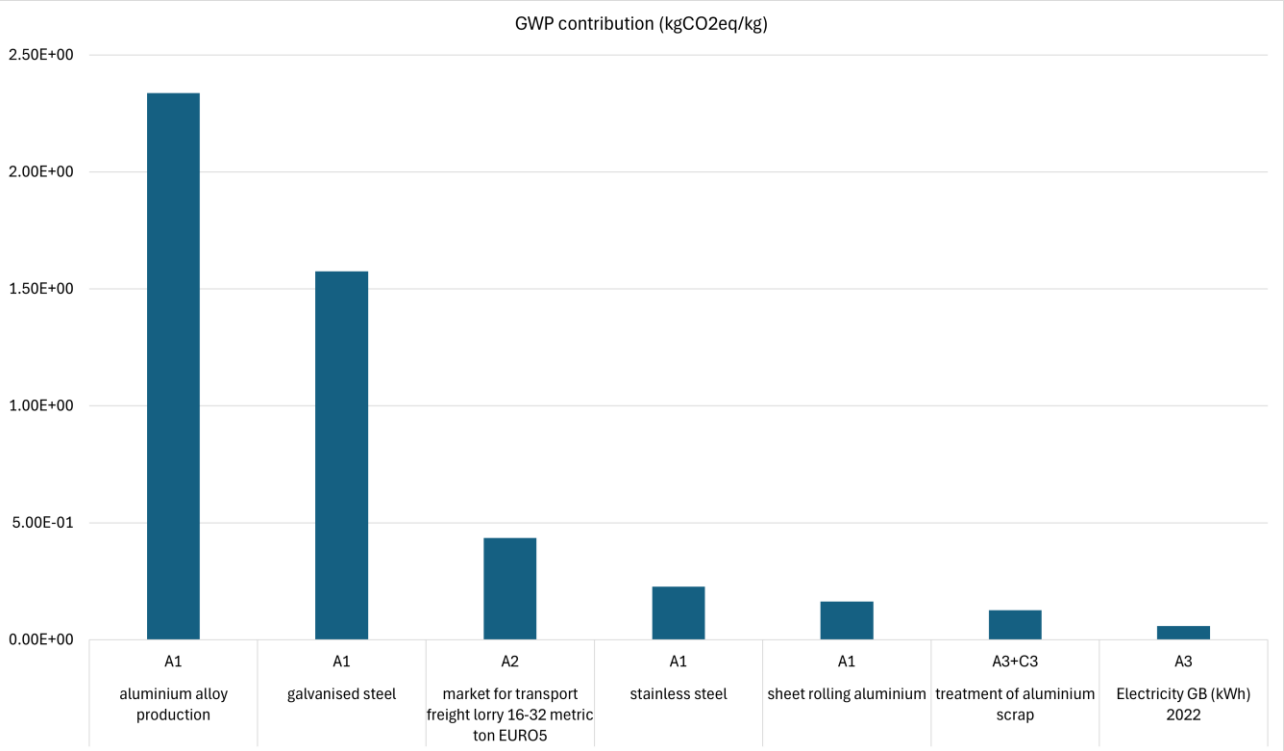


Figure 1

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