



Environmental Product Declaration

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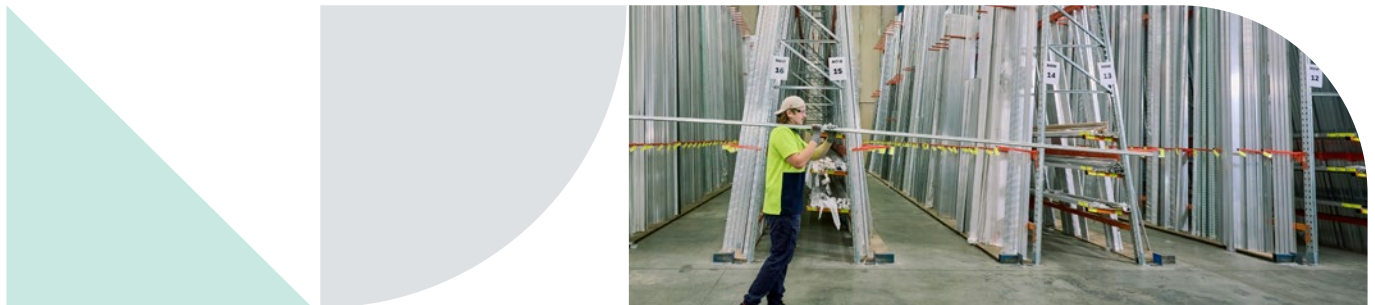
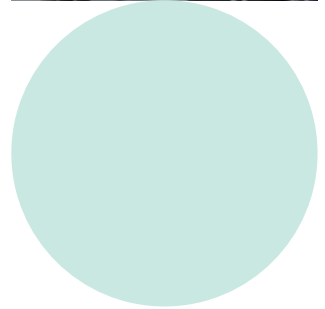
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*EPD of multiple products, based on the average results of the product group.
See Appendix A for the full list of products covered by this EPD*

*An EPD may be updated or depublished if conditions change.
To find the latest version of the EPD and to confirm its validity, see www.environdec.com*

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VERSION HISTORY

Original Version of the EPD, 2026-06-12

General Information

PROGRAMME INFORMATION



THE INTERNATIONAL EPD® SYSTEM

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PRODUCT CATEGORY RULES (PCR)

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product Category Rules (PCR): PCR 2019: Construction Products, version 2.0.1 (valid until: 2030-04-07)
 UN CPC 41532

PCR review was conducted by: The Technical Committee of the International EPD® System.
 A full list of members available on environdec.com
 The review panel may be contacted via support@environdec.com.

Review chair: Rob Rouwette (chair): start2see
 Noa Meron (co-chair): thinkstep

THIRD-PARTY VERIFICATION

Independent third-party verification of the declaration and data, according to ISO 14025:2006, via:

Individual EPD verification without a pre-verified LCA/EPD tool

Third-party verifier: Claudia A. Peña, PINDA LCT SpA, Chile

Approved by: International EPD System

Procedure for follow-up of data during EPD validity involves third party verifier Yes No

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

EPDs within the same product category but published in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.

For further information about comparability, see EN 15804 and ISO 14025.

Information about the EPD Owner

OWNER OF THE EPD



Owner: Capral Aluminium
Address: 71 Ashburn Rd,
Bundamba QLD, 4304,
Australia
Website: capral.com.au
Contact: Marc Banks
Marc.Banks@capral.com.au

LCA PRACTITIONER



Lifecycles.

Practitioner: Lifecycles (Life Cycle Strategies Pty Ltd)
Address: 4/30-34 Oxford St
Collingwood VIC 3066,
Australia
Website: lifecycles.com.au
Phone: +61 03 9417 1190
Email: info@lifecycles.com.au

About Capral

Capral Aluminium is Australia's largest manufacturer and distributor of aluminium extrusions, with a history spanning more than 90 years.

Proudly Australian, Capral operates a national network of manufacturing plants and distribution centres, supplying extruded aluminium and solutions to customers across construction, transport, marine, renewable energy and industrial sectors. With integrated capabilities spanning extrusion, finishing and distribution, Capral delivers consistent quality, reliability and service at scale.

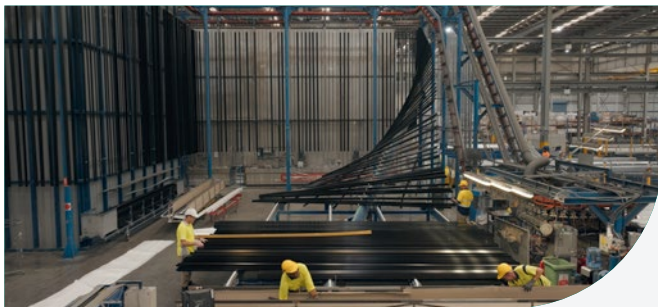


An Integrated Aluminium Supplier

Capral's integrated supply model ensures quality control, efficiency and consistency across every stage of production.

Extrusion

Aluminium extrusion is undertaken at Capral's Australian manufacturing facilities, producing a wide range of profiles to suit architectural and industrial applications.

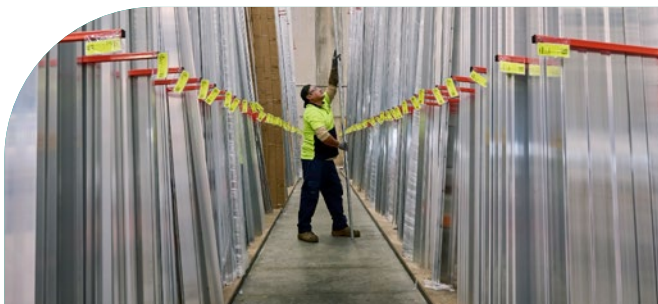
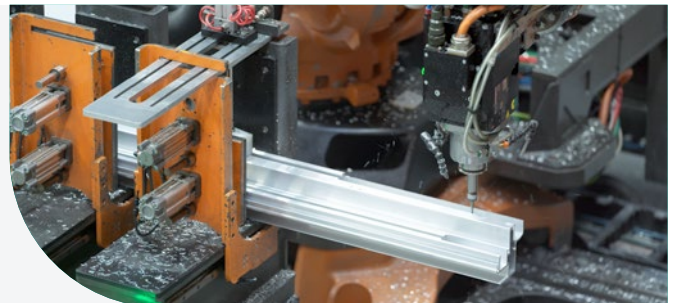


Finishing

Capral operates powder coating facilities co-located at extrusion and distribution sites delivering high-quality finishes that meet Australian Standards and project-specific requirements.

Fabrication Support

Value-add services including cutting, machining and kit preparation support Australian manufacturers with efficient production and reduced onsite handling.



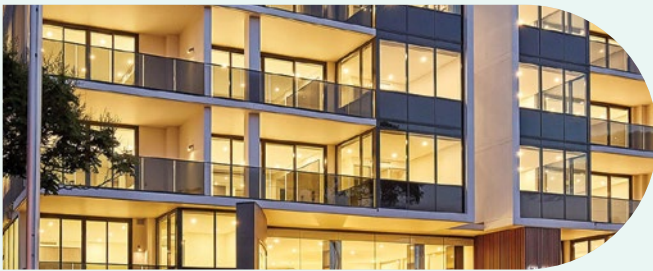
Distribution

A national distribution network ensures reliable supply across metropolitan and regional Australia.

Supporting Australian Manufacturing Industries

Capral supports a wide range of Australian manufacturing and construction industries with aluminium extrusions designed for performance and long-term durability.

Applications span residential and commercial building systems, transport and marine, general manufacturing and renewable energy infrastructure. Each solution is engineered to meet specific performance, compliance and lifecycle requirements, while supporting efficient material use and outcomes. Capral's national footprint ensures consistent supply and technical support across the country.

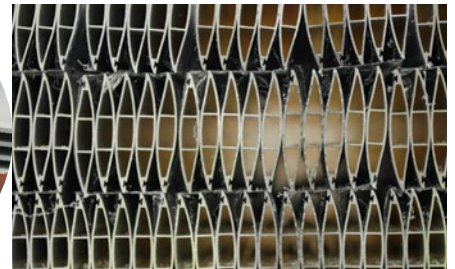


Building and Construction

Residential housing, high-rise developments, façades and architectural systems.

Industrial and Manufacturing

Custom profiles and components for general manufacturing and engineered applications.



Transport and Marine

Lightweight, durable aluminium solutions for transport and marine applications.

Renewable Energy and Infrastructure

Aluminium used in projects supporting Australia's transition to a lower-carbon economy.





Lower-carbon Aluminium

Capral's LocAl® lower-carbon aluminium offers a reduced embodied carbon option for customers looking to minimise the environmental impact of their projects.

Available across Capral's extrusion range and standard in Capral Building Systems products, LocAl® enables the specification of lower-carbon aluminium without the need to alter system design, performance, or fabrication processes.

Product Information

PRODUCT NAME

Extruded aluminium profile

UN CPC CODE

UN CPC 41532 Bars, rods and profiles, of aluminium

OTHER CODES FOR PRODUCT CLASSIFICATION

ANZSIC 2142 – Aluminium Rolling, Drawing, Extruding NACE Rev. 2 24.42 – Aluminium production

VISUAL REPRESENTATION



Example of aluminium extrusion

PRODUCT IDENTIFICATION

Capral 'LocAL SG - Mill Finish' mill finish extruded aluminium profiles, manufactured by Capral Aluminium at Bremer Park, Queensland, from LocAl® SG lower-carbon primary aluminium billet sourced from NZAS. Profiles are supplied mill finish (no secondary surface treatment) and offer the lowest carbon input available in Capral's Building Systems product ranges: Urban, UrbanPlus, UrbanComfort, AGS, Artisan, and Futureline.

PRODUCT DESCRIPTION

LocAl® SG is Capral's lowest carbon aluminium offer designed to support more sustainable manufacturing and construction outcomes. It provides aluminium extrusions with reduced embodied carbon while maintaining the performance, quality and compliance expected of Capral products. Refer to the product list in Appendix A for specifics.

NAME AND LOCATION OF PRODUCTION SITE(S)

Bremer Park, Queensland, Australia



Capral Building Systems Products

Capral's Building Systems division develops and supplies proprietary aluminium window, door, and façade systems for residential and commercial applications.

All Capral Building Systems from the ranges below can be extruded using LocAl® SG lower-carbon aluminium.

Capral works closely with architects, designers and fabricators to deliver compliant, high-performing systems that are efficient to specify, manufacture and install.

- ▶ Tested to Australian Standards
- ▶ Detailed Specification support
- ▶ National fabricator network



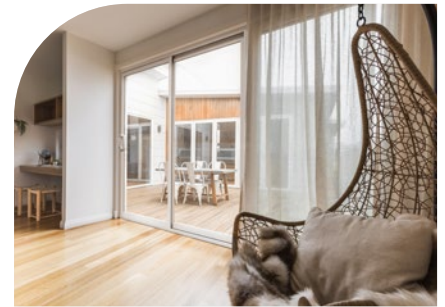
urban™ 
RESIDENTIAL

A standard range of window and door systems designed for residential applications.



urbanplus™ 
DESIGNER RESIDENTIAL

A high-performance range of window and door systems delivering enhanced strength, performance and contemporary architectural styling.



urbancomfort™ 
THERMAL RESIDENTIAL

A thermally broken window and door system designed to improve energy efficiency and indoor comfort across Australian climate conditions.



ags™ 
COMMERCIAL

A commercial window, door and framing system engineered for medium to high-rise applications, delivering strength, performance and design flexibility.



artisan™ 
ARCHITECTURAL

A premium architectural window and door system designed to deliver high-performance outcomes with refined aesthetics and large-format capability.



futureline™ 
THERMAL ARCHITECTURAL

A thermally broken glazing system developed to meet increasing energy efficiency requirements while maintaining architectural performance and design flexibility.

Content Declaration

For 1kg of aluminium extrusion (based on the average results of the product group).

Table 1: Content declaration of extruded aluminium and its packaging for one kilogram of extruded aluminium.

PRODUCT CONTENT	WEIGHT, KG	POST-CONSUMER RECYCLED MATERIAL, MASS-% OF PRODUCT	BIOGENIC MATERIAL, WEIGHT % AND KG C/TONNE
Virgin aluminium	0.92	0%	0%, 0
Pre-consumer scrap remelted	0.07	0%	0%, 0
Alloys	0.01	0%	0%, 0
TOTAL	1	0%	0%, 0

PACKAGING MATERIALS	WEIGHT, KG	WEIGHT-% (VERSUS THE PRODUCT)	WEIGHT BIOGENIC CARBON, KG C/KG
Linear low-density polyethylene (LLDPE) shrinkwrap	0.00028	<1%	0
LDPE film	0.0057	<1%	0
Celair Polyfoam	7.78E-05	<1%	0
PET strapping	0.00013	<1%	0
Tape	4.29E-05	<1%	0
Cardboard strips and angles	0.066	6.61%	0.028
Timber bases	0.0026	<1%	0.0012
Timber cleats	0.022	2.17%	0.0097
TOTAL	0.097	<10%	0.039

1 kg biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg of CO₂
 The above content declaration represents an average across the product group

Capral's aluminium products do not contain substances in the Candidate List of Substances of Very High Concern in the European Chemicals Agency in concentrations >0.1% of the weight of the product.

LCA Information

DECLARED UNIT

One kilogram (kg) of Capral 'LocAl SG - Mill Finish' mill finish extruded aluminium profile and its packaging.

TIME REPRESENTATIVENESS

2024-01-01 – 2024-12-31

GEOGRAPHICAL SCOPE

Aluminium billet is sourced from NZAS for A1, aluminium scrap is sent to Korea and Bahrain for remelt. All other steps are modelled for Australia.

DATABASE(S) AND LCA SOFTWARE USED

SimaPro® LCA software version 10.2.0.3 was used for the LCA modelling and calculation of impacts. All global generic models are sourced from Ecoinvent 3.11 EN15804 (2024) [2]. Australian energy use models are based on AusLCI version 2.47 modified for compliance against EN 15804 [3]. Both databases include resource, waste and output flows as required under EN 15804. Background data is less than 10 years old or has been updated within that timeframe.

DESCRIPTION OF SYSTEM BOUNDARIES

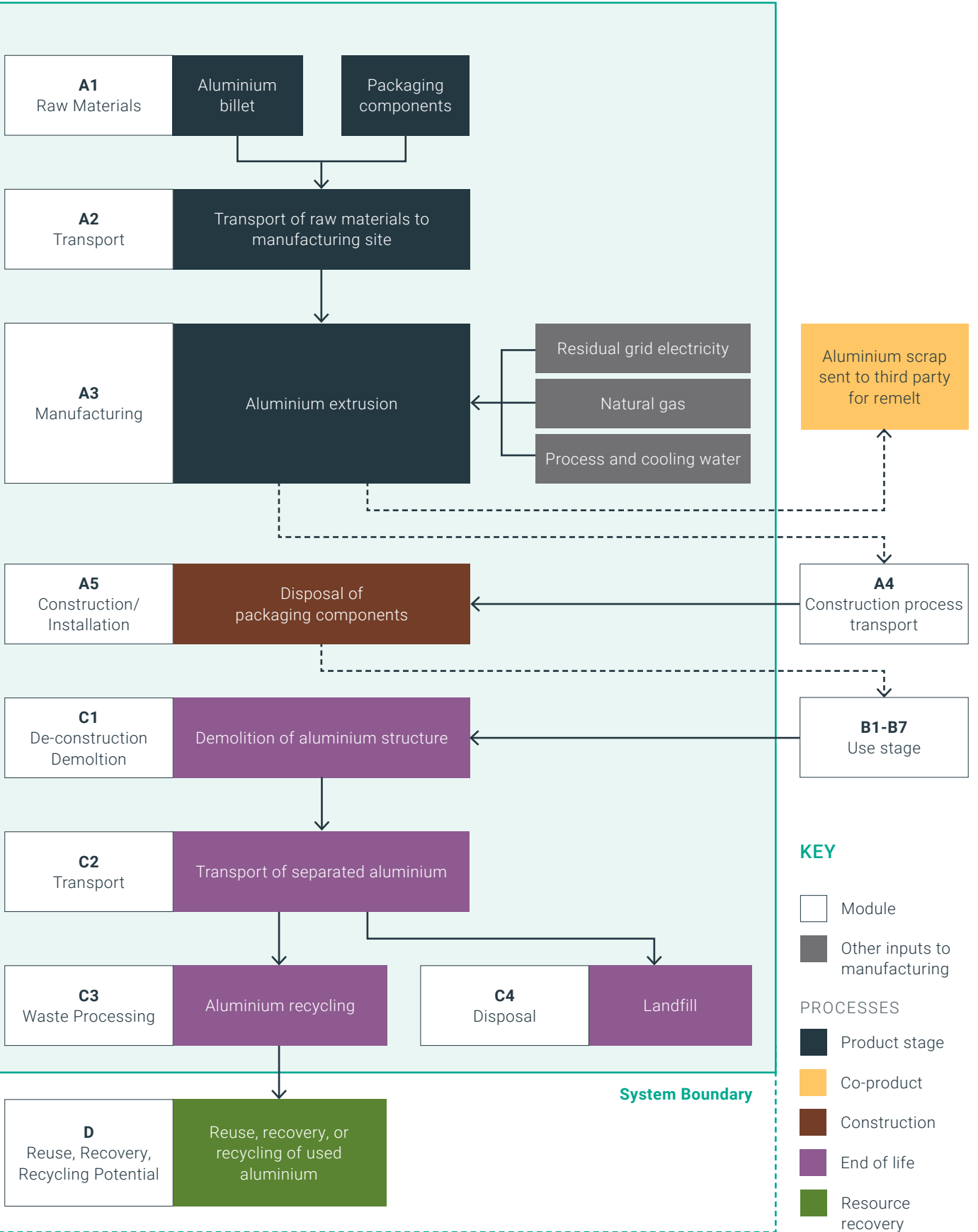
The system boundaries considered by the EPD are cradle-to-gate with options plus end-of-life stages (modules A1-A3, A5, C1-C4, D).

The system boundary includes:

- ▶ **Module A1:** Production/extraction of raw materials to manufacture the primary aluminium and packaging components. This includes the production of the primary aluminium as well as all the packaging components i.e. timber lengths, cardboard strips, LDPE film for product wrapping and foam for protection. Note that the aluminium billet is sourced from NZAS, and is not produced by Capral.
- ▶ **Module A2:** Transport of raw material to the manufacturing plant.
- ▶ **Module A3:** Includes the electricity (residual grid mix) required for the extruder and other plant equipment. Scrap aluminium is exported for remelting.
The extrusion process following the supply of the aluminium billet is consistent between all product dimensions.
- ▶ **Module A5:** Includes end-of-life processes for packaging including the release of any stored biogenic carbon. All packaging components are assumed to be sent to landfill from the construction site.
- ▶ **Module C:** Demolition of the construction at the end-of-life of the aluminium component (C1), transportation of separated aluminium waste (C2), waste processing (recycling – C3) and disposal (landfilling – C4).
- ▶ **Module D:** Reuse-recovery-recycling potential. Starting from the end-of-waste state, this module shows the benefit/impact from the net recycling of aluminium.



PROCESS FLOW DIAGRAM



EXCLUDED LIFE CYCLE STAGES

Impacts from the transport to construction site, from use to the end of the use stage (A4, B1-B7) are not included as this is best modelled at the specific construction project level.

Any excluded flows must fall below the cut-off threshold for this study (below 1% of any impact category included in the LCA). Only particularly minor inputs expected to be well below this threshold were not considered. Capral's extrusion production equipment and personnel related activities are non-attributable and excluded from the system boundary. There are no losses at any stage, as scrap and loss are captured

INFRASTRUCTURE AND CAPITAL GOODS

Infrastructure has been included in the calculated results of this study, for all life cycle stages, where they are part of generic LCI datasets used in AusLCI V2 EN15804, and Ecoinvent 3.11 EN15804. This includes distribution network infrastructure in the electricity processes, as well as the industrial furnace used to burn natural gas. The background LCI datasets also include factories that produce the materials used in packaging. Capral's factory for extrusion, and capital equipment inside their factory has not been included in the result calculations, however energy use for these have been captured in the total electricity use modelled.

Downstream data (Modules A5, C1-C4, D)

The modelling of downstream processes once the extruded aluminium profile leaves the manufacturing facility, is used on site during construction, and reaches its end-of-life is described below.

MODULE A5

It is assumed that the packaging materials used to transport the extruded aluminium reach its end-of-life in module A5. This module is included for biogenic carbon accounting purposes, to balance out the biogenic carbon stored in the relevant packaging components. The primary packaging components with biogenic carbon are the cardboard strips and angles, and the timber bases and cleats. All packaging components are assumed to go to landfill at the construction stage. This is considered a conservative approach. Indeed, decomposition of timber product in landfill will result in methane emissions which would not occur with other end-of-life scenarios such as composting, thus resulting in larger impacts for indicators such as Global Warming.

PRODUCT END-OF-LIFE

The end-of-life stage is divided in 4 modules in accordance with EN15804 guidelines²⁰.

Module C1 - deconstruction and demolition: this module includes the energy used during the demolition stage. The default value of diesel usage for the demolition/deconstruction of steel, wood, and other materials provided by the PCR 2019:14 (Section 4.8.4) was used.

Module C2 - transport of aluminium scrap: the transport of the end-of-life extruded aluminium profile to a recycling facility is modelled in this module. There is no national statistics on the average distance from demolition site to landfill. In this case, an assumed transport distance of 50 km was used. This is considered a conservative assumption. Indeed, most construction and demolition work in Australia occurs in urban areas, which are concentrated in the main capital cities representing two third of the Australian population²⁷, where typical distance to recycling facilities would be shorter.

Module C3 - waste processing: this module specifies the processes required for the extruded aluminium waste to reach the end-of-waste state. In this case, it includes the transport of the waste only. Indeed, impacts from sorting and processing (including remelting) of the aluminium are attributed to the life cycle of the product using the recycled aluminium. According to the National Waste Report²⁸, the resource recovery rate of metals was 90%, which includes construction and demolition metal waste (there is no separate figure for aluminium from construction and demolition waste). This indicates that the collection of metals (including aluminium) used in construction for recovery is common in Australia and is a reasonable end-of-life pathway.

Module C4 - landfilling: disposal of aluminium waste in a sanitary landfill is included in this module.

Aluminium is routinely recycled in Australia. When Capral's aluminium products reach their end-of-life²¹ the most likely scenarios are thus that they are collected for recycling or go to landfill.

In accordance with the requirements of the Construction Product PCR, the default end-of-life scenario was defined using the R2 ratio from the Product Environment Footprint (PEF). In the case of aluminium (buildings e.g. windows and doors), this ratio is reported as 0.90, meaning that the output flow of material to recycling is estimated as 0.9 kg/kg of product. The remaining 0.1kg/kg of product were directed to landfill.

Therefore, the main scenario modelled considers that 90% of the aluminium extrusions are recycled at end-of-life and 10% end up in landfill. Alternative result sets represent a case scenario where 100% of the ends up recycled, and 100% ends up in landfill. These scenarios are currently in use and are the most probable scenarios for the end-of-life of extruded aluminium products.

MODULE D

Modelling of module D relies on the estimated net flows of recovered materials which should be considered whether positive or negative. In this case, it does not include the effects associated with landfilling or recycling, which are reported in Module C3 and C4.

Once a material has reached its end-of-waste state, the recovered material can be used in a subsequent life cycle as a material input. In this case, the end-of-waste stage is reached once a recycled aluminium billet has been produced. At this point, it is assumed that the recycled material will be able to displace an equivalent amount of virgin material, thus reducing the demand for virgin material overall. This net displacement, accounting for secondary material inputs and outputs across the life cycle, is what is being reported here in Module D.

According to the National Waste Report²⁸, the resource recovery rate of metals (including construction and demolition metal waste) is of 90%. The material yield (Y factor) between the point of end-of-waste and point of substitution, was estimated to be 0.95, as per the AusLCI model 'recycling aluminium/AU U'.

Transportation to recycling centre/landfill – 50km: assumption of the distance between construction sites and landfills.*
Transport from recycling centre to aluminium processor – 850km: as per the 'collection and processing of aluminium scrap {AU}| AusLCI, U' process

* This is considered a conservative assumption. Indeed, most construction and demolition work in Australia occurs in urban areas, which are concentrated in the main capital cities representing two third of the Australian population²⁷, where typical distance to recycling/landfilling facilities would be shorter.

Table 2 summarises the end-of-life parameters for Capral's aluminium extrusions for the main scenario.

Table 2: Summary of end-of-life parameters per declared unit (1 kg of extruded aluminium profile)

PROCESSES

Collection process specified by type	0	kg collected separated
	1	kg collected with mixed construction waste
Recovery system specified by type	0	kg for re-use
	0.9	kg for recycling
	0	kg for energy recovery
Disposal specified by type	0.1	kg product or material for final deposition
Assumptions for scenario development	<ul style="list-style-type: none"> ▶ Transportation to recycling centre/landfill – 50km. ▶ Transport from recycling centre to aluminium processor – 850km. 	

ALLOCATION

Allocation of co-products

In this LCA, allocation of co-products is used to assign a small amount of impact to the generation of pre-consumer aluminium scrap. Capral sells its scrap aluminium to smelters for remelt. An economic allocation was therefore applied to distinguish the effects of producing extruded aluminium from the effects of producing scrap. This was conducted based on the value of material produced (i.e. economic allocation). The value of extruded aluminium and aluminium scrap was based on primary data from Capral.

Data quality assessment

The LCA is based on data collected by Capral for its Bremer Park and Campbellfield sites for the calendar year 2024. Campbellfield water data was used as water data for Bremer Park was unavailable. The products assessed are representative of Capral Primary Billet LocAL SG - Mill Finish extruded aluminium profile from the Bremer Park site. The data covers 100% of the production of Capral Primary Billet LocAL SG - Mill Finish extruded aluminium profile from the Bremer Park site for the year 2024. The EPD uses background data from AusLCI 2.47 EN15804 (2025) and Ecoinvent 3.11 EN15804 (2024).

Table 3 below summarise the key parameters used to assess the quality of the data used in the analysis. The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that supports the use of more primary data, to increase the representativeness of and comparability between EPDs. Note that the indicator does not capture all relevant aspects of data quality and is not comparable across product categories.

Table 3: Declaration of sources and share of primary data

PROCESS	SOURCE TYPE	SOURCE	REFERENCE YEAR	DATA CATEGORY	SHARE OF PRIMARY DATA, OF GWP-GHG RESULTS FOR A1-A3
Production of primary aluminium	EPD	EPD-IES-0031354:002	2026	Primary data, secondary data	64%*
Raw material transport	Database	Ecoinvent 3.11 EN15804	2024	Primary data	1%
Extrusion electricity	Database	AusLCI 2.47 EN15804	2025	Primary data	8%
Extrusion natural gas	Database	AusLCI 2.47 EN15804	2025	Primary data	3%
Production of packaging	Database	Ecoinvent 3.11 EN15804	2024	Primary data	1%
Total share of primary data, of GWP-GHG results for A1-A3					77%

* The full share of primary data of the upstream EPD is not reported. In the Rio Tinto EPD, (EPD-IES-0031354:002)¹, Table 4-5 reports the share of primary data for processes contributing >10% to GWP-GHG results. The data presented in this table adds up to 74% primary data for A1-A3 however, it may be more than this if processes contributing <10% are also included. Therefore, the reported share of primary data is associated with uncertainty, as an EPD used as data source lack information on the share of primary data. As the primary aluminium contributes to 86% of Capral’s GWP-GHG impact, and the upstream EPD has at least 74% primary data – the share of GWP-GHG results for A1-A3 for Capral is therefore 64%.

The quality of key datapoints was also assessed using the data quality level and criteria from the UN Environmental Global Guidance on LCA database development. The most critical aspects of the model, primary aluminium production and extrusion data, were modelled from good to very good quality data in terms of time, geography, and technology representativeness. As the EPD source for the primary aluminium was published in 2025 and is the same aluminium used by Capral in their process from the exact aluminium smelter, hence the time, geographical, and technology coverage is ‘very good’. This process is the main contributor to the GWPT impact of Capral’s product. The LCA model of the upstream EPD complies with the rules to which the downstream EPD is verified.

ELECTRICITY MODELLING (MODULE A3)

LocAl SG - Mill Finish aluminium is only extruded in Bremer Park, QLD, therefore the electricity model is the Queensland residual supply mix, which has an associated GWP-GHG emission factor of 0.85 kg CO₂ eq./kWh.

Impact assessment categories and characterisation models

This EPD includes all mandatory indicators from EN15804:2012+A2:2019+AC:2021 (EN 15804+A2 for short) and other additional indicators, using EF 3.1 as the reference package. The list of indicators considered is summarised below in Table 4, Table 5, and Table 6.

Table 4: Mandatory potential environmental impact indicators according to EN 15804:2012+A2:2019

INDICATOR	ABBREVIATION	DESCRIPTION	CHARACTERISATION MODEL
Global warming potential – fossil	GWPF		
Global warming potential – biogenic	GWPB	Measured in kg of carbon dioxide equivalence (kg CO ₂ eq.). This is governed by the increased concentration of gases in the atmosphere that trap heat and lead to increasing global temperatures. These gases are principally carbon dioxide, methane and nitrous oxide.	IPCC model based on 100-year timeframe based on IPCC 2021 [4]
Global warming potential - land use/ land use change	GWPL		
Global warming potential - total	GWPT		
Ozone depletion potential	ODP	Measured in kg CFC 11 eq. This calculates the destructive effects in the stratospheric ozone layer over a time horizon of 100 years.	Steady-state ODPs [5]
Acidification potential	AP	Measured in mol H ⁺ eq. This assesses the change in critical load exceedance of the sensitive area in terrestrial and main freshwater ecosystems, to which acidifying substances deposit.	Accumulated exceedance, CML 2001 non-baseline (fate not included) [6], [7]
Eutrophication potential – freshwater	EPF	Measured in kg of phosphorus equivalents (kg P eq.). Expresses the degree to which the emitted nutrients reach the freshwater end compartment.	EUTREND model [8], as implemented in ReCiPe
Eutrophication potential – marine	EPM	Measured in kg of nitrogen equivalents (kg N eq.). Expresses the degree to which the emitted nutrients reach the marine end compartment.	EUTREND model [8], as implemented in ReCiPe
Eutrophication potential – terrestrial	EPT	Measured in mol N eq. This expresses the degree to which nutrients reach sensitive terrestrial environments, resulting in changes in species composition, such as increased invasive species, reed growth, and dieback in tree species.	Accumulated Exceedance based on Seppälä, Posch [6], and Posch, Seppälä [7]



Table 4: Mandatory potential environmental impact indicators according to EN 15804:2012+A2:2019 (continued)

INDICATOR	ABBREVIATION	DESCRIPTION	CHARACTERISATION MODEL
Photochemical ozone creation potential	POCP	Measured in kg NMVOC eq. This measures harmful air pollutant creation by primary pollutants such as nitrous oxides and volatile organic compounds when they interact under the influence of the sun and form chemicals toxic to humans and ecosystems, including ozone.	LOTOS-EUROS [9]
Abiotic depletion potential – minerals & metals*	ADPE	Measured in mg of antimony equivalence (kg Sb eq.). This measures the depletion of minerals based on the concentration of currently economic reserves and rate of de-accumulation.	CML-IA V4.8 [10]
Abiotic depletion potential – fossil fuels*	ADPF	Measured in MJ Net Calorific Value (NCV). This measures the depletion of fossil fuels based on energy content.	CML-IA V4.8 [10]
Water deprivation potential*	WDP	Measured in cubic metres of water equivalence deprived (m ³ H ₂ O eq.). This quantifies the relative available water remaining per area once the demand of humans and aquatic systems has been met.	Available water remaining (AWARE) method [11]

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.

Table 5: Additional mandatory and voluntary indicators.

INDICATOR	ABBREVIATION	UNITS	CHARACTERISATION MODEL
Potential environmental impacts			
Global warming potential – excluding biogenic uptake, emissions, and storage	GWP-GHG	kg CO ₂ eq.	IPCC model based on 100-year timeframe based on IPCC 2013
Particulate Matter emissions	PM	Disease incidence (due to kg of PM2.5 emitted).	SETAC-UNEP [12]
Ionising Radiation – human health**	IRP	kBq U-235-eq.	Human health effect model as developed by Dreicer, Tort [13] update by Frischknecht, Braunschweig [14]
Eco-toxicity – freshwater*	ETPF	Comparative Toxic Unit for ecosystems (CTUe)	USEtox version 2.1 (Fantke et al. [15] and Rosenbaum et al [16]), adapted as in Saouter et al. [17]
Human toxicity – cancer*	HTPC	Comparative Toxic Unit for human (CTUh)	USEtox version 2.1 (Fantke et al. [15] and Rosenbaum et al [16]), adapted as in Saouter et al. [17]
Human toxicity – non-cancer*	HTPNC	CTUh	USEtox version 2.1 (Fantke et al. [15] and Rosenbaum et al [16]), adapted as in Saouter et al. [17]
Land use related impacts / soil quality*	SQP	Dimensionless	Soil quality index based on LANCA

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator.

**Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Table 6: Use of resources, waste production, and output flows.

INDICATOR	ABBREVIATION	UNITS	
Resource use			
Primary energy resources – Renewable	Use as energy carrier	PERE	MJ, net calorific value
	Used as raw materials	PERM	
	Total	PERT	
Primary energy resources – Non-renewable	Use as energy carrier	PENRE	MJ, net calorific value
	Used as raw materials	PENRM	
	Total	PENRT	
Use of secondary materials	SM	kg	
Use of renewable secondary fuels	RSF	MJ, net calorific value	
Use of non-renewable secondary fuels	NRSF	MJ, net calorific value	
Net use of fresh water	FW	m ³	
Waste production			
Hazardous waste disposed	HWD	kg	
Non-hazardous waste disposed	NHWD	kg	
Radioactive waste disposed	RWD	kg	
Output flows			
Components for reuse	CRU	kg	
Material for recycling	MFR	kg	
Materials for energy recovery	MER	kg	
Exported energy – electrical	EEE	MJ per energy carrier	
Exported energy – thermal	EET	MJ per energy carrier	

Table 7: System boundary table according to EN 15804+A2 life cycle stages.

Module	PRODUCT STAGE			DISTRIBUTION/ INSTALLATION STAGE		USE STAGE							END-OF-LIFE STAGE				BEYOND PRODUCT LIFE CYCLE
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Modules declared	X	X	X	ND	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	AU/ NZ	AU/ NZ	AU	-	AU	-	-	-	-	-	-	-	AU	AU	AU	AU	AU
Share of primary data	77%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – products	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	0%			-	-	-	-	-	-	-	-	-	-	-	-	-	-

* This is the total share of primary data, of GWP-GHG results for A1-A3. The reported share of primary data is associated with uncertainty, as an EPD used as data source lack information on the share of primary data.

Environmental Performance

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. The results of the end-of-life stage (modules C1-C4) should be considered when using the results of the product stage (modules A1-A3).

LCA results of the product(s) - main environmental performance results

MANDATORY IMPACT CATEGORY INDICATORS ACCORDING TO EN 15804

Table 8: Results for one kilogram (kg) of Capral 'LocAL SG - Mill Finish' mill finish extruded aluminium profile and its packaging

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
GWPT	kg CO ₂ eq.	7.5E+00	1.9E-01	4.0E-04	1.0E-02	9.8E-02	6.9E-04	-5.8E+00
GWPF	kg CO ₂ eq.	7.7E+00	1.9E-03	4.0E-04	1.0E-02	9.8E-02	6.3E-04	-5.8E+00
GWPB	kg CO ₂ eq.	-1.1E-01	1.9E-01	8.0E-08	3.1E-06	4.9E-05	6.1E-05	7.7E-03
GWPL	kg CO ₂ eq.	4.5E-03	4.7E-07	4.1E-08	4.6E-06	4.3E-05	2.0E-07	-1.7E-02
ODP	kg CFC 11 eq.	7.1E-08	3.0E-13	3.1E-14	1.9E-12	1.6E-11	2.2E-13	-2.5E-09
AP	mol H ⁺ eq.	6.4E-02	1.3E-05	3.6E-06	3.5E-05	5.3E-04	5.1E-06	-4.0E-02
EPF	kg P eq.	2.4E-03	1.3E-07	1.3E-08	1.1E-06	6.9E-06	6.7E-08	-1.9E-03
EPM	kg N eq.	7.7E-03	1.6E-05	1.7E-06	1.1E-05	1.5E-04	4.3E-06	-6.7E-03
EPT	mol N eq.	8.1E-02	2.6E-05	1.8E-05	1.2E-04	1.6E-03	2.4E-05	-7.0E-02
POCP	kg NMVOC eq.	2.9E-02	4.1E-05	5.4E-06	4.7E-05	6.5E-04	7.1E-06	-2.2E-02
ADPE*	kg Sb eq.	2.8E-05	3.0E-09	1.4E-10	3.3E-08	2.7E-07	8.0E-10	-7.5E-05
ADPF*	MJ (NCV)	8.9E+01	1.6E-02	5.2E-03	1.4E-01	1.4E+00	7.8E-03	-6.0E+01
WDP*	m ³ H ₂ O eq.	1.2E+01	8.0E-05	1.6E-05	8.3E-04	7.7E-03	4.4E-05	-2.0E+00

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

ADDITIONAL MANDATORY AND VOLUNTARY IMPACT CATEGORY INDICATORS

Table 9: Results for one kilogram (kg) of Capral 'LocAL SG - Mill Finish' extruded aluminium profile and its packaging

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
GWP-GHG ¹	kg CO ₂ eq.	7.7E+00	8.7E-02	4.0E-04	1.0E-02	9.8E-02	6.3E-04	-5.8E+00
PM	Disease incidence	9.1E-07	1.6E-10	1.0E-10	7.8E-10	1.0E-08	1.4E-10	-5.0E-07
IRP**	kBq U-235 eq.	7.8E-02	1.6E-05	2.2E-06	1.1E-04	1.2E-03	1.0E-05	-1.4E-01
ETPF*	CTUe	1.7E+01	1.0E-02	2.8E-04	2.6E-02	1.6E-01	1.2E-02	-3.7E+01
HTPC*	CTUh	1.8E-07	4.6E-13	4.1E-14	1.7E-12	1.4E-11	2.0E-13	-4.3E-09
HTPNC*	CTUh	1.9E-05	1.9E-10	6.4E-13	8.7E-11	4.6E-10	1.3E-11	-5.9E-08
SQP*	Dimensionless	2.6E+01	4.6E-02	3.4E-04	8.2E-02	1.3E+00	5.5E-02	-1.3E+01

* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of the results are high and as there is limited experience with the indicator

**Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.



RESOURCE USE INDICATORS

Table 10: Results for one kilogram (kg) of Capral 'LocAL SG - Mill Finish' mill finish extruded aluminium profile and its packaging

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Resource use*								
PERE	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	1.9E-02	1.8E-04	-6.3E+00
PERM	MJ NCV	1.4E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PERT	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	1.9E-02	1.8E-04	-6.3E+00
PENRE	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	1.4E+00	7.8E-03	-6.0E+01
PENRM	MJ NCV	2.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PENRT	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	1.4E+00	7.8E-03	-6.0E+01
SM	kg	7.3E-02	8.0E-06	2.1E-06	6.2E-05	5.9E-04	4.9E-06	-1.1E-01
RSF	MJ NCV	7.1E-03	9.8E-08	5.6E-09	8.0E-07	6.6E-06	5.6E-08	-2.3E-04
NRSF	MJ NCV	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW	m ³	2.8E-01	1.9E-06	3.7E-07	1.9E-05	1.8E-04	1.0E-06	-4.6E-02
Waste flows								
HWD	kg	1.8E-02	3.9E-05	5.8E-06	3.2E-04	2.2E-03	2.2E-05	-1.3E+00
NHWD	kg	2.7E+00	3.6E-01	8.5E-05	6.2E-03	4.1E-02	5.0E-01	-8.6E+00
RWD	kg	1.6E-06	3.9E-09	5.4E-10	2.8E-08	2.9E-07	2.6E-09	-3.5E-05
Output flows								
CRU	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR	kg	1.5E-01	0.0E+00	0.0E+00	0.0E+00	9.0E-01	0.0E+00	0.0E+00
MER	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EEE	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

* Primary energy indicators were modelled according to Option B, as described in Annex 3 of PCR 2019:14.

Additional LCA results (other environmental performance results) of the product(s)

EPD RESULTS 100% RECYCLING AT END-OF-LIFE

The results of the analysis, assuming 100% recycling at end-of life, are reported in Table 11.

Table 11: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% recycling scenario.

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Mandatory potential environmental impact indicator								
GWPT	kg CO ₂ eq.	7.5E+00	1.9E-01	4.0E-04	1.0E-02	1.1E-01	0.0E+00	-6.4E+00
GWPF	kg CO ₂ eq.	7.7E+00	1.9E-03	4.0E-04	1.0E-02	1.1E-01	0.0E+00	-6.4E+00
GWPB	kg CO ₂ eq.	-1.1E-01	1.9E-01	8.0E-08	3.1E-06	5.4E-05	0.0E+00	8.5E-03
GWPL	kg CO ₂ eq.	4.5E-03	4.7E-07	4.1E-08	4.6E-06	4.8E-05	0.0E+00	-1.8E-02
ODP	kg CFC 11 eq.	7.1E-08	3.0E-13	3.1E-14	1.9E-12	1.8E-11	0.0E+00	-2.8E-09
AP	mol H ⁺ eq.	6.4E-02	1.3E-05	3.6E-06	3.5E-05	5.9E-04	0.0E+00	-4.5E-02
EPF	kg P eq.	2.4E-03	1.3E-07	1.3E-08	1.1E-06	7.7E-06	0.0E+00	-2.1E-03
EPM	kg N eq.	7.7E-03	1.6E-05	1.7E-06	1.1E-05	1.6E-04	0.0E+00	-7.4E-03
EPT	mol N eq.	8.1E-02	2.6E-05	1.8E-05	1.2E-04	1.8E-03	0.0E+00	-7.8E-02
POCP	kg NMVOC eq.	2.9E-02	4.1E-05	5.4E-06	4.7E-05	7.2E-04	0.0E+00	-2.5E-02
ADPE*	kg Sb eq.	2.8E-05	3.0E-09	1.4E-10	3.3E-08	3.0E-07	0.0E+00	-8.3E-05
ADPF*	MJ (NCV)	8.9E+01	1.6E-02	5.2E-03	1.4E-01	1.6E+00	0.0E+00	-6.6E+01
WDP*	m ³ H ₂ O eq.	1.2E+01	8.0E-05	1.6E-05	8.3E-04	8.6E-03	0.0E+00	-2.2E+00

Table 11: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% recycling scenario. (continued)

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Additional potential environmental impact indicator								
GWP-GHG	kg CO ₂ eq.	7.7E+00	8.7E-02	4.0E-04	1.0E-02	1.1E-01	0.0E+00	-6.4E+00
PM	Disease incidence	9.1E-07	1.6E-10	1.0E-10	7.8E-10	1.1E-08	0.0E+00	-5.5E-07
IRP**	kBq U-235 eq.	7.8E-02	1.6E-05	2.2E-06	1.1E-04	1.3E-03	0.0E+00	-1.6E-01
ETPF*	CTUe	1.7E+01	1.0E-02	2.8E-04	2.6E-02	1.8E-01	0.0E+00	-4.1E+01
HTPC*	CTUh	1.8E-07	4.6E-13	4.1E-14	1.7E-12	1.5E-11	0.0E+00	-4.8E-09
HTPNC*	CTUh	1.9E-05	1.9E-10	6.4E-13	8.7E-11	5.2E-10	0.0E+00	-6.6E-08
SQP*	Dimensionless	2.6E+01	4.6E-02	3.4E-04	8.2E-02	1.5E+00	0.0E+00	-1.4E+01
Resource use								
PERE	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	2.2E-02	0.0E+00	-7.0E+00
PERM	MJ NCV	1.4E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PERT	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	2.2E-02	0.0E+00	-7.0E+00
PENRE	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	1.6E+00	0.0E+00	-6.6E+01
PENRM	MJ NCV	2.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PENRT	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	1.6E+00	0.0E+00	-6.6E+01
SM	kg	7.3E-02	8.0E-06	2.1E-06	6.2E-05	6.5E-04	0.0E+00	-1.2E-01
RSF	MJ NCV	7.1E-03	9.8E-08	5.6E-09	8.0E-07	7.3E-06	0.0E+00	-2.5E-04
NRSF	MJ NCV	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW	m ³	2.8E-01	1.9E-06	3.7E-07	1.9E-05	2.0E-04	0.0E+00	-5.1E-02

Table 11: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% recycling scenario. (continued)

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Waste flows								
HWD	kg	1.8E-02	3.9E-05	5.8E-06	3.2E-04	2.4E-03	0.0E+00	-1.4E+00
NHWD	kg	2.7E+00	3.6E-01	8.5E-05	6.2E-03	4.6E-02	0.0E+00	-9.5E+00
RWD	kg	1.6E-06	3.9E-09	5.4E-10	2.8E-08	3.2E-07	0.0E+00	-3.9E-05
Output flows								
CRU	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR	kg	1.5E-01	0.0E+00	0.0E+00	0.0E+00	1.0E+00	0.0E+00	0.0E+00
MER	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EEE	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00



EPD RESULTS 100% LANDFILL AT END-OF-LIFE

The results of the analysis, assuming 100% landfill at end-of life, are reported in Table 12.

Table 12: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% landfill scenario.

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Mandatory potential environmental impact indicator								
GWPT	kg CO ₂ eq.	7.5E+00	1.9E-01	4.0E-04	1.0E-02	0.0E+00	6.9E-03	0.0E+00
GWPF	kg CO ₂ eq.	7.7E+00	1.9E-03	4.0E-04	1.0E-02	0.0E+00	6.3E-03	0.0E+00
GWPB	kg CO ₂ eq.	-1.1E-01	1.9E-01	8.0E-08	3.1E-06	0.0E+00	6.1E-04	0.0E+00
GWPL	kg CO ₂ eq.	4.5E-03	4.7E-07	4.1E-08	4.6E-06	0.0E+00	2.0E-06	0.0E+00
ODP	kg CFC 11 eq.	7.1E-08	3.0E-13	3.1E-14	1.9E-12	0.0E+00	2.2E-12	0.0E+00
AP	mol H ⁺ eq.	6.4E-02	1.3E-05	3.6E-06	3.5E-05	0.0E+00	5.1E-05	0.0E+00
EPF	kg P eq.	2.4E-03	1.3E-07	1.3E-08	1.1E-06	0.0E+00	6.7E-07	0.0E+00
EPM	kg N eq.	7.7E-03	1.6E-05	1.7E-06	1.1E-05	0.0E+00	4.3E-05	0.0E+00
EPT	mol N eq.	8.1E-02	2.6E-05	1.8E-05	1.2E-04	0.0E+00	2.4E-04	0.0E+00
POCP	kg NMVOC eq.	2.9E-02	4.1E-05	5.4E-06	4.7E-05	0.0E+00	7.1E-05	0.0E+00
ADPE*	kg Sb eq.	2.8E-05	3.0E-09	1.4E-10	3.3E-08	0.0E+00	8.0E-09	0.0E+00
ADPF*	MJ (NCV)	8.9E+01	1.6E-02	5.2E-03	1.4E-01	0.0E+00	7.8E-02	0.0E+00
WDP*	m ³ H ₂ O eq.	1.2E+01	8.0E-05	1.6E-05	8.3E-04	0.0E+00	4.4E-04	0.0E+00

Table 12: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% landfill scenario. (continued)

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Additional potential environmental impact indicator								
GWP-GHG	kg CO ₂ eq.	7.7E+00	8.7E-02	4.0E-04	1.0E-02	0.0E+00	6.3E-03	0.0E+00
PM	Disease incidence	9.1E-07	1.6E-10	1.0E-10	7.8E-10	0.0E+00	1.4E-09	0.0E+00
IRP**	kBq U-235 eq.	7.8E-02	1.6E-05	2.2E-06	1.1E-04	0.0E+00	1.0E-04	0.0E+00
ETPF*	CTUe	1.7E+01	1.0E-02	2.8E-04	2.6E-02	0.0E+00	1.2E-01	0.0E+00
HTPC*	CTUh	1.8E-07	4.6E-13	4.1E-14	1.7E-12	0.0E+00	2.0E-12	0.0E+00
HTPNC*	CTUh	1.9E-05	1.9E-10	6.4E-13	8.7E-11	0.0E+00	1.3E-10	0.0E+00
SQP*	Dimensionless	2.6E+01	4.6E-02	3.4E-04	8.2E-02	0.0E+00	5.5E-01	0.0E+00
Resource use								
PERE	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	0.0E+00	1.8E-03	0.0E+00
PERM	MJ NCV	1.4E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PERT	MJ NCV	1.1E+02	2.7E-04	3.3E-05	1.9E-03	0.0E+00	1.8E-03	0.0E+00
PENRE	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	0.0E+00	7.8E-02	0.0E+00
PENRM	MJ NCV	2.6E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
PENRT	MJ NCV	9.5E+01	1.6E-02	5.2E-03	1.4E-01	0.0E+00	7.8E-02	0.0E+00
SM	kg	7.3E-02	8.0E-06	2.1E-06	6.2E-05	0.0E+00	4.9E-05	0.0E+00
RSF	MJ NCV	7.1E-03	9.8E-08	5.6E-09	8.0E-07	0.0E+00	5.6E-07	0.0E+00
NRSF	MJ NCV	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
FW	m ³	2.8E-01	1.9E-06	3.7E-07	1.9E-05	0.0E+00	1.0E-05	0.0E+00

Table 12: Environmental impact indicators, resource flows and other inventory flows, according to EN 15804:2012+A2:2019, 100% landfill scenario. (continued)

INDICATOR	UNIT	MODULE A1-A3	MODULE A5	MODULE C1	MODULE C2	MODULE C3	MODULE C4	MODULE D
		Raw material supply, transport and manufacturing	Construction / Installation	Deconstruction demolition	Transport	Waste processing	Disposal	Reuse-recovery-recycling potential
Waste flows								
HWD	kg	1.8E-02	3.9E-05	5.8E-06	3.2E-04	0.0E+00	2.2E-04	0.0E+00
NHWD	kg	2.7E+00	3.6E-01	8.5E-05	6.2E-03	0.0E+00	5.0E+00	0.0E+00
RWD	kg	1.6E-06	3.9E-09	5.4E-10	2.8E-08	0.0E+00	2.6E-08	0.0E+00
Output flows								
CRU	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MFR	kg	1.5E-01	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
MER	kg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EET	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
EEE	MJ	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00



Abbreviations

EN	European Norm (Standard)
EF	Environmental Footprint
GPI	General Programme Instructions
ISO	International Organization for Standardization
CEN	European Committee for Standardization
CPC	Central product classification
ND	Not Declared



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Appendix A. Capral Product List

CAPRAL MATERIAL GROUPING	ITEM	FUNCTION	CCD MIN (mm)	CCD MAX (mm)
AE1050	AGS300 Framing	Narrowline Frame	30	128
AE1055	AGS325 Framing	Narrowline Frame	29	108
AE1060	AGS400 Framing	Single-Glazed Centre Pocket Framing	18	151
AE1065	AGS450 Framing	Wide Pocket Framing	43	116
AE1070 mm	AGS425 Framing	Centre Pocket Framing	42	144
AE1080	AGS406 Framing	Front Glazed Framing	50	63
AE1089	AGS419 100mm Acoustic	Acoustic Framing	104	112
AE1090	AGS419 100mm SG	Single-Glazed Flushline Framing	20	189
AE1091	AGS619 150mm SG	Single-Glazed Flushline Framing	53	241
AE1092	AGS429 100mm DG	Double-Glazed Flushline Framing	23	171
AE1093	AGS629 150mm DG	Double-Glazed Flushline Framing	40	240
AE1094	AGS1029 250mm SG/DG	SG/DG Flushline Framing	211	256
AE1095	CW150 150mm C/Wall	Flushline Curtain Wall	38	397
AE1096	AGS619 Acoustic	Acoustic Framing	151	157
AE1097	Sub Framing 76mm	Sub Framing	29	107
AE1098	Sub Framing 100mm	Sub Framing	24	242
AE1099	Sub Framing 125mm	Sub Framing	50	171
AE1100	AGS600 Framing	Single-Glazed Centre Pocket Framing	29	212
AE1101	Sub Framing 150mm	Sub Framing	122	244
AE1102	Sub Framing 250mm	Sub Framing	53	286
AE1103	Sub Framing Adjust'	Sub Framing Adjustable	41	210
AE1104	AGS380/480 SW	Sliding Window	50	110
AE1105	AGS481 DH Window	Double Hung Window	91	112
AE1107	AGS483 Louvre Window	Louvre Window	56	173
AE1108	Sub Framing 50mm	Sub Framing	74	93

CAPRAL MATERIAL GROUPING	ITEM	FUNCTION	CCD MIN (mm)	CCD MAX (mm)
AE1109	Louvre Sun Control	Louvre Sun Control	57	82
AE1110	AGS601 Framing	Offset Pocket Framing	51	157
AE1115	AGS625 Framing	Double-Glazed Centre Pocket Framing	22	227
AE1120	AGS150 Adaptors	Adaptors	29	54
AE1140	Glazing Channels	Glazing Channels & Adaptors	34	56
AE1150	AGS200 Door	Beaded Commercial Door	19	206
AE1163	AGS215 Door	Hinged Door	29	108
AE1165	AGS225 46mm Door	Pocketed Door	26	185
AE1170	AGS889 Sliding Door	Sliding Door	131	131
AE1190	Sliding Door Tracks	Sliding Door Tracks	47	134
AE1200	AGS35 AWN/CAS Window	Awning/Casement Window	23	65
AE1210	AGS50 AWN/CAS Window	Awning/Casement Window	32	160
AE1220	Artisan 998 Euro T&T	Euro Tilt & Turn Window	29	88
AE1350	Art 992 AWN/CAS Win	Awning/Casement Window	16	110
AE1370	Artisan 991 Double H	Double Hung Window	43	114
AE1430	Artisan 996 Fold Doo	Folding Door	22	130
AE1480	Artisan 990 SW	Sliding Window	37	164
AE1490	Louvre - Straight	Louvre - Straight Blades	77	205
AE1491	Louvre - Curved	Louvre - Curved Blades	113	163
AE1492	Louvre - Throated	Louvre - Throated Blades	80	159
AE1493	Louvre - Elliptical	Louvre - Elliptical Blades	89	300
AE1494	Louvre - Box	Louvre - Box	80	376
AE1495	AGS125 Framing	Glass Louvre Framing	113	145
AE1496	Louvre - Frames	Louvre - Fixed Frames	72	172
AE2000	AGS900/Artisan994 SD	Sliding Door	22	206
AE2040	CW175 Curtain Wall	Curtain Wall	38	292
AE2050	CW116 Curtain Wall	Curtain Wall	43	210
AE3000	F/line 425TB 100mm	Centre Pocket Framing	20	113

CAPRAL MATERIAL GROUPING	ITEM	FUNCTION	CCD MIN (mm)	CCD MAX (mm)
AE3006	F/Line 992TB AWN	Awning Window	20	28
AE3015	F/Line 997TB HD	Hinged Door	20	120
AE3020	F/Line Sliding Door	Sliding Door	50	123
AE3030	F/line 429TB 100mm	Flush Framing	30	117
AE3035	F/line 629TB 150mm	Flush Framing	30	101
AE3040	F/line 1029TB 250mm	Flush Framing	30	208
AE3045	F/Line 994TB SD	Sliding Door	40	80
AE3200	Panoramic Door	Panoramic Door	26	190
AG1050	Fly Screen Frame	Fly Screen Frame	18	70
AG1060	Screen Door Frame	Screen Door Frame	20	72
AG1100	Screen Window Frame	Screen Window Frame	37	45
AG1110	Scrn T Mulls/Stiles	Screen T Mullions & Meeting Stiles	10	60
AG1140	Midrail/Joiners	Midrail/Joiner Sections	22	35
AG1210	SupaScreen Door	Security Door Frame	20	76
AG1220	SupaScreen Window	Security Window Frame	20	45
AG1225	OneFrame	Frame	15	74
AG1226	Storm/Supa Guard	Security Screens	51	118
AG1227	StormGuard Escape	Security Screens	31	118
AG1228	SwiftFrame	SwiftFrame	45	77
AG1260	SupaScape Window	Security Window Frame	35	71
AG1270	Fly Door Frame	Fly Door Frame	49	65
AG1400	Screen Interlocks	Screen Interlocks	20	49
AG1410	Screen Jamb Adaptors	Screen Jamb Adaptors	20	74
AG1430	Screen Cnr Extr'	Screen Corner Stake Extrusions	86	130
AG1440	Screen Sliding Track	Screen Sliding Tracks	16	68
AG1450	Screen Channels	Screen Channels	10	50
AG1460	Screen Bug Strip	Screen Bug Strip	10	20
AG1700	IntrudaGuard Door	Door Frame	72	73

CAPRAL MATERIAL GROUPING	ITEM	FUNCTION	CCD MIN (mm)	CCD MAX (mm)
AG1701	IntrudaGuard Window	Window Frame	39	47
AG1702	IntrudaGuard Bead	Bead	22	22
AH1050	Patio/Carport Extr'	Patio/Carport Extrusion	20	98
AH1270	Balustrade Systems		20	123
AI1050	Angles		15	256
AI1051	Trim Angles		17	79
AI1060	Channels		15	406
AI1061	Channel Lipped		126	126
AI1070	Tee Sections		15	411
AI1080	Flat Bar		10	226
AI1090	Rectangular Hollows		20	305
AI1100	Squares Solid		9	91
AI1110	Square Hollows		15	246
AI1120	Round Tubes		10	350
AI1140	Round Bars		8	127
AI1160	Misc. Extrusion		20	230
AI1170	Other Geo. Shapes		40	105
AI1180	Moulds & Trims		20	255
AI1190	Qubelok Extrusion		35	42
AI1210	Seating Products		250	250
AI1230	Ladders Scaff. Plank		30	232
AI1250	Transport Sections		20	406
AI1260	Marine Sections		50	375
AI1290	Coolroom / Portable		40	172
AI1300	Sign Extrusions		33	210
AI1530	I Beams		124	349
AI1731	Louvre - Industrial		30	311
AI1741	Fencing Extrusions		28	151

CAPRAL MATERIAL GROUPING	ITEM	FUNCTION	CCD MIN (mm)	CCD MAX (mm)
AI1744	Quiklok Slat Screen		46	46
AI1820	Conveyor Tube		153	153
AR1005	Urban Plus 391 DW	Double Hung Window	19	91
AR1030	AMP MK10 AW	Awning Window	70	90
AR1040	AMP MK15 AW	Awning Window	20	100
AR1050	AMP MK5B SD	Sliding Door	20	110
AR1056	Urban Plus 390 SW	Sliding Window	25	128
AR1060	AMP MK7 SW	Sliding Window	20	64
AR1130	Urban Plus 392 AW	Awning/Casement Window	30	127
AR1180	Urban 283 Louvre	Louvre	53	82
AR1190	Urban Plus 394 SD	Sliding Door	30	192
AR1230	Urban Plus 397 HD	Hinged Door	20	132
AR1250	Genesis AW	Awning/Casement Window	90	90
AR1260	Genesis Bifold Door	Bifold Door	19	19
AR1290	Genesis Double Hung	Double Hung	95	95
AR1300	Genesis Entry Door	Entry Door	42	42
AR1310	Genesis Louvre	Louvre	22	70
AR1330	Genesis SW	Sliding Window	63	63
AR1370	Urban+ 393 Louvre	Louvre	36	151
AR1380	AMP MK5C SD	Sliding Door	50	100
AR1490	Urban Plus 396/395	Bifold Door/Window	62	164
AR1980	Urban 284 SD	Stacking Door	20	206
AR2000	Urban 280 SW	Sliding Window	20	141
AR2020	Urban 281 DH	Double Hung Window	25	105
AR2025	UrbanComf 280TB SD	Sliding Door	20	105
AR2040	Urban 282 AW	Awning Window	28	104
AR2045	UrbanComf 280TB AW	Awning	10	65
AR2060	Urban 284L SD	Sliding Door	30	126

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