Environmental Product Declaration

Claridge Products | Display Cases - Cabinets with Aluminum Trim

With nearly 80 years of crafting the world's finest writing surfaces Claridge and Calyx by Claridge offer a comprehensive product portfolio ideal for environments ranging from K-12 schools to sleek corporate spaces. Our products facilitate learning, foster collaboration, stimulate creativity, and empower people to reach their full potential.

Always an industry leader, we introduced and produced the first markerboards, called the LCS or Liquid Chalk System, to the United States at the AASA show in New Jersey in 1973. The markerboard quickly replaced the chalkboard and the resulting demand led to another expansion of the Claridge facility. Throughout the years Claridge has continued its leadership position in new product development offering all types of chalkboards and markerboards, including glass which was introduced in 2008, and expanding its core to include mobiles, horizontal and vertical sliding units, enclosed bulletin board cabinets, trophy cases, and so much more.More than 250 employees make up the Claridge team, including several with more than 45 years of service.

In 2022, Claridge Products introduced a new brand, Calyx by Claridge, to work alongside its thriving construction products division. Calyx by Claridge focuses on design-centric commercial interiors and furniture while Claridge concentrates on work completed through general contractors and architects on public bid contracts, largescale renovations and remodels and new construction projects in the commercial, K-12, higher education and hospitality sectors.

Display Cases and Cabinets feature an aluminum housing with a satin anodized finish and locking tempered glass doors for safety. Back panels are available in cork, Fabricork, Guilford of Maine Fabric, or Hook-Fab; several different options are also available for the aluminum trim.

The Contemporary Bulletin Board Cabinet, one of the products within the display cases/cabinets with aluminum trim product category, is displayed above.

Declaration Owner
Claridge Products
480 Wrangler Drive, Suite 200
Coppell, TX 75019
https://claridgeproducts.com/
https://calyxbyclaridge.com/
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VERIFIED by SCS Global Services
ENVIRONMENTAL PRODUCT DECLARATION
BASED ON LCA

Product:
Display Cases - Cabinets with Aluminum Trim

Functional Unit
The functional unit is one square meter (1 m^2) of workspace, for a 10-year period.

EPD Number and Period of Validity
SCS-EPD-10366
Valid: April 25, 2025 through April 24, 2030

Product Category Rule
BIFMA PCR for Office Furniture Workspace Products: UNCPC 3814, V2. NSF International. Valid through January 2030.

Program Operator
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608
+1.510.452.8000 | www.SCSglobalServices.com

Declaration owner:	Claridge Products
Address:	480 Wrangler Drive, Suite 200, Coppell, TX 75019
For Additional Explanatory Material:	calyx@claridgeproducts.com
Declaration Number:	SCS-EPD-10366
Date of Issue:	April 25, 2025
Declaration Validity Period:	April 25, 2025 through April 24, 2030
Program Operator:	SCS Global Services, 2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA
Declaration URL Link:	https://www.scsglobalservices.com/certified-green-products-guide
General Program Instructions:	SCS Type III Environmental Declaration Program: Program Operator Manual. V12.0
Product(s):	Display Cases - Cabinets with Aluminum Trim
Functional Unit:	1 m2 of workspace, for a 10-year period
EPD Type and Scope:	Product Specific, Cradle-to-gate with options
Product RSL:	10 Years
Product Subcategory:	Option B: Panels in addition with other office components intended for one person
Markets of Applicability:	North America
Year(s) of Reported Manufacturer Primary Data:	July 2023 - June 2024
LCA Software & Version Number:	SimaPro v9.6
LCI Database(s) & Version Number:	Ecoinvent 3.10 or USLCI 2015
LCIA Methodology & Version Number:	TRACI 2.1; CML 4.1
Reference PCR:	BIFMA PCR for Office Furniture Workspace Products: UNCPC 3814, V2. NSF International. Valid through January 2030.
Sub-category PCR review:	Thomas P. Gloria, PhD, Industrial Ecology Consultants; Jack Geibig, PE, Ecoform; Michael Overcash, PhD, Environmental Clarity
Independent critical review of the LCA and data, according to ISO 14044 and the PCR:	☐ internal ☒ external
LCA Reviewer:	Beth Cassese SCS Global Services
Independent verification of the declaration and data, according to ISO 14025 and the PCR:	☐ internal ☒ external
EPD Verifier:	Beth Cassese, SCS Global Services
Declaration Contents:	1. Claridge Products 2. Products 3. Methodological Framework 4. Technical Information and Scenarios 5. LCA: Results 6. LCA: Interpretation 7. Additional Environmental Information 8. References

Disclaimers: *This EPD conforms to ISO 14025, 14040, 14044, and ISO 21930.*
Scope of Results Reported: *The PCR requirements limit the scope of the LCA metrics such that the results exclude environmental and social performance benchmarks and thresholds, and exclude impacts from the depletion of natural resources, land use ecological impacts, ocean impacts related to greenhouse gas emissions, risks from hazardous wastes and impacts linked to hazardous chemical emissions.*
Accuracy of Results: *Due to PCR constraints, this EPD provides estimations of potential impacts that are inherently limited in terms of accuracy.*

Comparability: *The PCR this EPD was based on was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled.*

In accordance with ISO 21930:2017: *EPDs are comparable only if they comply with the core PCR, use the same sub-category PCR where applicable, include all relevant information modules and are based on equivalent scenarios with respect to the context of construction works.*

The owner of the declaration shall be liable for the underlying information and evidence; SCS shall not be liable with respect to manufacturer information, life cycle assessment data, and evidence supplied or made available to SCS.

1. Claridge Products

Backed by the manufacturing expertise and distribution network of its parent company, Claridge Products and Equipment is the leading manufacturer of writing surfaces in the U.S. market. With two comprehensive brand channels, the company has the most comprehensive product offering with the two best writing surfaces in the industry: glass and porcelain. We are experts at engineering and manufacturing products that provide superior ease of installation.

2. Products

2.1 PRODUCT DESCRIPTION

Display Cases and Cabinets feature an aluminum housing with a satin anodized finish and locking tempered glass doors for safety.

- Tackable back panels can be Claridge Cork, Fabricork, Guilford of Maine Fabric, or Hook-Fab.
- Floor mounted, wall mounted, and recessed options available
- Optional lights available on select units

The Contemporary Bulletin Board Cabinet, one of the products within the display cases/cabinets with aluminum trim product category, is displayed below.

This EPD evaluates the following products as part of this Display Cases – Cabinets with Aluminum Trim product category:

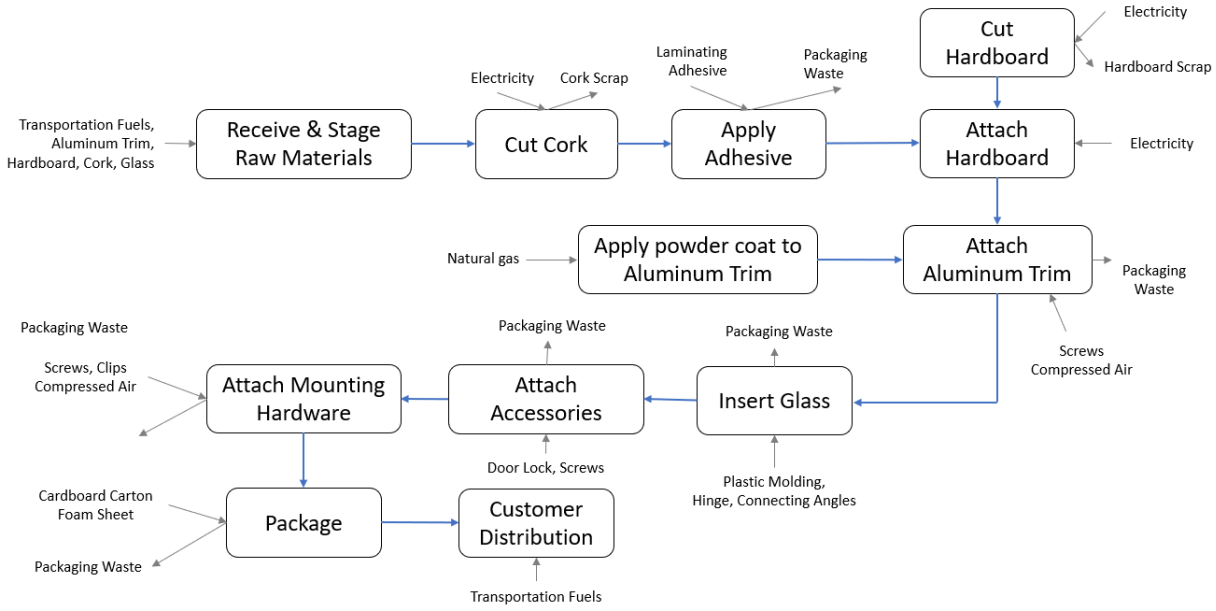
370 Case, 390 Case, Classic Cabinet, Deluxe Cabinet, Hinged Door Contemporary, Imperial Case, Large Door Contemporary, Premiere Display Case with Base, Revere Cabinet, Rival Cabinet, Universal Cabinet, and the Wall Mounted Premiere Display Case.

In accordance with the PCR, this EPD presents the results of a base configuration product, as well as alternative configurations to reflect the minimum and maximum environmental impacts of this product category. The base configuration product was selected as a product having median impact results within the entire product category portfolio of this EPD. The base configuration product presented is the Universal Cabinet, the minimum alternative configuration is the Imperial Case, and the maximum alternative configuration is the Wall Mounted Premiere Display case.

2.2 PRODUCT SPECIFICATION

Display Cases/Cabinets with aluminum trim are SCS Indoor Advantage Gold Certified, and these products are available in sizes from 3'x2' to 6'x16'.

2.3 FLOW DIAGRAM



2.4 PRODUCT REPRESENTATIONS

For this product category EPD, median, minimum, and maximum impact products were chosen to represent the product family, in accordance with the PCR. The results in this EPD present a base configuration as well as alternative configurations to reflect maximum and minimum impacts to environmental categories.

2.5 APPLICATION

Display Cases/Cabinets are ideal for a wide range of applications and environments including but not limited to corporate interiors, education, and healthcare.

3. Methodological Framework

3.1 FUNCTIONAL UNIT

1 m^2 of workspace, for a 10-year period.

3.2 SYSTEM BOUNDARY

The life cycle phases included in the scope of this EPD are presented in Table 1. System Boundary for the Display Cases – Cabinets with Aluminum Trim Product Category.

Table 1. System Boundary for the Display Cases – Cabinets with Aluminum Trim Product Category.

Product			Construction		Use							End-of-life				Benefits and loads beyond the system boundary
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Raw material extraction and processing	Transport to manufacturer	Manufacturing	Transport	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
X	X	X	X	X	X	MND	MND	X	MND	MND	MND	X	X	X	X	MND

X = Module Included | MND = Module Not Declared

3.3 END-OF-LIFE

In accordance with the PCR, the end-of-life scenario was modeled based on the 2018 US EPA, therefore the study assumes 25.0% of glass materials, 33.1% of steel materials and 17.2% of aluminum materials are recycled at the end of life. For the remaining unrecycled materials, it is assumed that 20% goes to incineration and 80% goes to landfill.

3.4 ALLOCATION

General principles of allocation were based on ISO 14040/44. ecoinvent databases tend to allocate based on either economic or physical (mass and area) basis. Additionally, primary electricity and natural gas from the Harrison extruded aluminum facility was allocated exclusively to products containing Extruded Aluminum with a mass and area allocation approach, in order to reflect the process flow of the facility.

3.5 CUT-OFF RULES

Processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes may not exceed 5% by mass and by 5% of the considered impact categories.

3.6 DATA SOURCES

Primary data are the information collected directly from Claridge and includes the average values, locations, formulations, chemical compositions, etc. of the products in scope. Primary data from the manufacturer was from July 2023 to June 2024. These primary data are based on direct information sources of the manufacturer.

All secondary data were taken from literature, previous LCI studies, and life cycle databases. Each dataset used was taken from ecoinvent or USLCI (United States Life Cycle Inventory) databases. These databases are widely distributed and referenced within the LCA community and are either partially or fully critically reviewed.

Inputs and outputs related to combustible material were transformed using the heat of combustion values based on higher heating values (HHVs), in accordance with Section 4.3.3.1 of ISO 14044:2006

Table 2. *Secondary data sources for the Display Cases – Cabinets with Aluminum Trim Product Category.*

Flow	Dataset	Data Source	Publication Date
Raw Materials			
ABS	Acrylonitrile-butadiene-styrene copolymer {RoW}| acrylonitrile-butadiene-styrene copolymer production | Cut-off, U	ecoinvent 3	2023
	Injection moulding {RoW}| injection moulding | Cut-off, U	ecoinvent 3	2023
Aero-Mold Plastic	Acrylonitrile-butadiene-styrene copolymer {GLO}| market for acrylonitrile-butadiene-styrene copolymer | Cut-off, U	ecoinvent 3	2023
Aluminum	Aluminium, cast alloy {GLO}| market for aluminium, cast alloy | Cut-off, U	ecoinvent 3	2023
Aluminum with Vinyl Finish	Aluminium, cast alloy {GLO}| aluminium ingot, primary, to aluminium, cast alloy market | Cut-off, U	ecoinvent 3	2023
	Polyvinylchloride, bulk polymerised {GLO}| market for polyvinylchloride, bulk polymerised | Cut-off, U	ecoinvent 3	2023
Anodized Aluminum	Anodising, aluminium sheet {GLO}| market for anodising, aluminium sheet | Cut-off, U	ecoinvent 3	2023
	Aluminum, cold rolling, at plant/kg/RNA	USLCI	2015-2022
Claridge Cork	Cork slab {RoW}| cork slab production | Cut-off, U	ecoinvent 3	2023
	Latex {RoW}| market for latex | Cut-off, U	ecoinvent 3	2023
	Linseed {GLO}| market for linseed | Cut-off, U	ecoinvent 3	2023
	Epoxy resin, liquid {RoW}| market for epoxy resin, liquid | Cut-off, U	ecoinvent 3	2023
	Calcium carbonate, precipitated {RoW}| market for calcium carbonate, precipitated | Cut-off, U	ecoinvent 3	2023
Cold Rolled Steel	Cold rolled sheet, steel, at plant/RNA	USLCI	2015-2022
Cork	Cork, raw {RoW}| market for cork, raw | Cut-off, U	ecoinvent 3	2023
Extruded Aluminum	Aluminium alloy, AlLi {GLO}| market for aluminium alloy, AlLi | Cut-off, U	ecoinvent 3	2023
	Electricity, at eGrid, SRMV, 2022/RNA U	USLCI	2022
	Heat, district or industrial, natural gas {RoW}| market for heat, district or industrial, natural gas | Cut-off, U	ecoinvent 3	2023
FSC Duracore	Fibreboard, soft, without adhesives {RER}| market for fibreboard, soft, without adhesives | Cut-off, U	ecoinvent 3	2023
	Potato starch {RoW}| potato starch production | Cut-off, U	ecoinvent 3	2023
	Petroleum slack wax {GLO}| market for petroleum slack wax | Cut-off, U	ecoinvent 3	2023
	Coating powder {RoW}| market for coating powder | Cut-off, U	ecoinvent 3	2023
Galvanized Steel	Galvanized steel sheet, at plant/RNA	USLCI	2015-2022
Laminate Plastic	Cellulose fibre {RoW}| market for cellulose fibre | Cut-off, U	ecoinvent 3	2023
	Melamine formaldehyde resin {RoW}| market for melamine formaldehyde resin | Cut-off, U	ecoinvent 3	2023
	Polyester resin, unsaturated {RoW}| market for polyester resin, unsaturated | Cut-off, U	ecoinvent 3	2023
	Polymethyl methacrylate, sheet {GLO}| market for polymethyl methacrylate, sheet | Cut-off, U	ecoinvent 3	2023
LED Lighting	Light emitting diode {GLO}| market for light emitting diode | Cut-off, U	ecoinvent 3	2023
Medium Density Fiberboard	Medium density fibreboard {RoW}| medium density fibreboard production, uncoated | Cut-off, U	ecoinvent 3	2023
Nylon	Nylon 6 {RoW}| market for nylon 6 | Cut-off, U	ecoinvent 3	2023
Particleboard	Particleboard, uncoated {RoW}| market for particleboard, uncoated | Cut-off, U	ecoinvent 3	2023
Polyethylene Terephthalate	Polyethylene terephthalate, granulate, bottle grade {GLO}| market for polyethylene terephthalate, granulate, bottle grade | Cut-off, U	ecoinvent 3	2023
Polypropylene	Polypropylene, granulate {GLO}| market for polypropylene, granulate | Cut-off, U	ecoinvent 3	2023
PVC	Polyvinylchloride, bulk polymerised {GLO}| market for polyvinylchloride, bulk polymerised | Cut-off, U	ecoinvent 3	2023

Flow	Dataset	Data Source	Publication Date
Steel	Steel, low-alloyed {GLO}| market for steel, low-alloyed | Cut-off, U	ecoinvent 3	2023
Stainless Steel	Steel, stainless 304, flat rolled coil/kg/RNA	USLCI	2022
Tempered Glass	Tempering, flat glass {RoW}| tempering, flat glass | Cut-off, U	ecoinvent 3	2023
	Flat glass, coated {RoW}| flat glass production, coated | Cut-off, U	ecoinvent 3	2023
White Glue	Polyurethane adhesive {GLO}| market for polyurethane adhesive | Cut-off, U	ecoinvent 3	2023
Vinyl	Polyvinylchloride, bulk polymerised {GLO}| market for polyvinylchloride, bulk polymerised | Cut-off, U	ecoinvent 3	2023
Zinc Alloy	Zinc {GLO}| market for zinc | Cut-off, U	ecoinvent 3	2023
Production			
Electricity	Electricity, at eGrid, SRMV, 2022/RNA U	USLCI	2022
Natural Gas	Heat, district or industrial, natural gas {RoW}| market for heat, district or industrial, natural gas | Cut-off, U	ecoinvent 3	2023
Incoming Water	Water, completely softened {US}| market for water, completely softened | Cut-off, U	ecoinvent 3	2023
Transportation			
Truck Transportation	Transport, combination truck, average fuel mix/US	USLCI	2015-2022
Ship Transportation	Transport, ocean freighter, average fuel mix/US	USLCI	2015-2022
Packaging Materials			
Cardboard (75% Recycled)	Corrugated board box {US}| market for corrugated board box | Cut-off, U	ecoinvent 3	2023
	Graphic paper, 100% recycled {GLO}| market for graphic paper, 100% recycled | Cut-off, U	ecoinvent 3	2023
Paper	Kraft paper {RoW}| market for kraft paper | Cut-off, U	ecoinvent 3	2023
Polyester (50% Recycled)	Polyethylene terephthalate, granulate, amorphous, recycled {US}| market for polyethylene terephthalate, granulate, amorphous, recycled | Cut-off, U	ecoinvent 3	2023
	Polyethylene terephthalate, granulate, amorphous {GLO}| market for polyethylene terephthalate, granulate, amorphous | Cut-off, U	ecoinvent 3	2023
Polystyrene (50% Recycled)	Polystyrene, general purpose {RoW}| polystyrene production, general purpose | Cut-off, U	ecoinvent 3	2023
	Polystyrene scrap, post-consumer {GLO}| polystyrene scrap, post-consumer, Recycled Content cut-off | Cut-off, U	ecoinvent 3	2023
Polyphenylene Ether (50% Recycled)	Packaging film, low density polyethylene {RoW}| packaging film production, low density polyethylene | Cut-off, U	ecoinvent 3	2023
	Polyethylene, high density, granulate, recycled {US}| polyethylene production, high density, granulate, recycled | Cut-off, U	ecoinvent 3	2023
Steel	Steel, low-alloyed {GLO}| market for steel, low-alloyed | Cut-off, U	ecoinvent 3	2023
Wood	Sawnwood, softwood, dried (u=10%), planed {RoW}| sawnwood production, softwood, dried (u=10%), planed | Cut-off, U	ecoinvent 3	2023
Support Materials			
Super Foam Adhesive Spray	Dimethyl ether {RoW}| market for dimethyl ether | Cut-off, U	ecoinvent 3	2023
	Isobutane {GLO}| market for isobutane | Cut-off, U	ecoinvent 3	2023
	Acetone, liquid {RoW}| market for acetone, liquid | Cut-off, U	ecoinvent 3	2023
	Pentane {GLO}| market for pentane | Cut-off, U	ecoinvent 3	2023
	Tap water {RoW}| market for tap water | Cut-off, U	ecoinvent 3	2023
	Polyurethane, flexible foam {RoW}| market for polyurethane, flexible foam | Cut-off, U	ecoinvent 3	2023
	Methyl acetate {GLO}| market for methyl acetate | Cut-off, U	ecoinvent 3	2023
	Cyclohexane {GLO}| market for cyclohexane | Cut-off, U	ecoinvent 3	2023
	Naphtha {RoW}| market for naphtha | Cut-off, U	ecoinvent 3	2023
	Toluene, liquid {RoW}| market for toluene, liquid | Cut-off, U	ecoinvent 3	2023
Support Material Aluminum	Aluminium, cast alloy {GLO}| market for aluminium, cast alloy | Cut-off, U	ecoinvent 3	2023
Buffer Solution pH 4.0	Tap water {RoW}| market for tap water | Cut-off, U	ecoinvent 3	2023
	Formaldehyde {RoW}| market for formaldehyde | Cut-off, U	ecoinvent 3	2023
	Methanol {US}| market for methanol | Cut-off, U	ecoinvent 3	2023
Buffer Solution pH 7.0	Tap water {RoW}| market for tap water | Cut-off, U	ecoinvent 3	2023

Flow	Dataset	Data Source	Publication Date
	Phosphoric acid, industrial grade, without water, in 85% solution state {GLO}| market for phosphoric acid, industrial grade, without water, in 85% solution state | Cut-off, U	ecoinvent 3	2023
	Nitric acid, without water, in 50% solution state {RoW}| market for nitric acid, without water, in 50% solution state | Cut-off, U	ecoinvent 3	2023
Castrol GTX 10-W-30	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
Caustic Soda	Tap water {RoW}| market for tap water | Cut-off, U	ecoinvent 3	2023
	Sodium hydroxide, without water, in 50% solution state {RoW}| market for sodium hydroxide, without water, in 50% solution state | Cut-off, U	ecoinvent 3	2023
	Sodium chloride, powder {GLO}| market for sodium chloride, powder | Cut-off, U	ecoinvent 3	2023
CITGO A/W Hydraulic Oil 32	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
DURA-PLATE 235 Multi-Purpose Epoxy (Part B) Hardener	Xylene, mixed {RoW}| market for xylene, mixed | Cut-off, U	ecoinvent 3	2023
	1-butanol {GLO}| market for 1-butanol | Cut-off, U	ecoinvent 3	2023
	Phenol {RoW}| market for phenol | Cut-off, U	ecoinvent 3	2023
	Dimethylamine {RoW}| market for dimethylamine | Cut-off, U	ecoinvent 3	2023
	Formaldehyde {RoW}| market for formaldehyde | Cut-off, U	ecoinvent 3	2023
	Ethyl benzene {RoW}| market for ethyl benzene | Cut-off, U	ecoinvent 3	2023
	Ethylene diamine {RoW}| market for ethylene diamine | Cut-off, U	ecoinvent 3	2023
	Epoxy resin, liquid {RoW}| market for epoxy resin, liquid | Cut-off, U	ecoinvent 3	2023
Formbond OS2 Performance Polymer Adhesive Sealant	Bitumen adhesive compound, cold {GLO}| market for bitumen adhesive compound, cold | Cut-off, U	ecoinvent 3	2023
GL-5 80W90	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
Loctite 271 Threadlocker	Cumene {GLO}| market for cumene | Cut-off, U	ecoinvent 3	2023
	Oxygen, liquid {RoW}| market for oxygen, liquid | Cut-off, U	ecoinvent 3	2023
	Methyl methacrylate {RoW}| market for methyl methacrylate | Cut-off, U	ecoinvent 3	2023
	Sugar, from sugarcane {RoW}| sugarcane processing, traditional annexed plant | Cut-off, U	ecoinvent 3	2023
	Bitumen seal {GLO}| market for bitumen seal | Cut-off, U	ecoinvent 3	2023
Mineral Spirits	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
NEUTRAL-Q Disinfectant Cleaner Deodorant	Ammonium chloride {GLO}| market for ammonium chloride | Cut-off, U	ecoinvent 3	2023
	Tap water {RoW}| market for tap water | Cut-off, U	ecoinvent 3	2023
SHER-WOOD BAC Wiping Stain Clear Tint Base	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
	Xylene, mixed {RoW}| market for xylene, mixed | Cut-off, U	ecoinvent 3	2023
	Methyl ethyl ketone {RoW}| market for methyl ethyl ketone | Cut-off, U	ecoinvent 3	2023
SHER-WOOD Hi-Bild Precat Lacquer Medium Rubbed Effect	Butyl acetate {RoW}| market for butyl acetate | Cut-off, U	ecoinvent 3	2023
	Cellulose fibre {RoW}| market for cellulose fibre | Cut-off, U	ecoinvent 3	2023
	2-methyl-1-butanol {GLO}| market for 2-methyl-1-butanol | Cut-off, U	ecoinvent 3	2023
	Ethanol, without water, in 99.7% solution state, from ethylene {RoW}| market for ethanol, without water, in 99.7% solution state, from ethylene | Cut-off, U	ecoinvent 3	2023
	Acetone, liquid {RoW}| market for acetone, liquid | Cut-off, U	ecoinvent 3	2023
	Ethyl acetate {GLO}| market for ethyl acetate | Cut-off, U	ecoinvent 3	2023
	1-propanol {GLO}| market for 1-propanol | Cut-off, U	ecoinvent 3	2023
	1-butanol {GLO}| market for 1-butanol | Cut-off, U	ecoinvent 3	2023
	Urea formaldehyde resin {RoW}| urea formaldehyde resin production | Cut-off, U	ecoinvent 3	2023
	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
	Formaldehyde {RoW}| market for formaldehyde | Cut-off, U	ecoinvent 3	2023
Wash Primer Catalyst Reducer	1-propanol {GLO}| market for 1-propanol | Cut-off, U	ecoinvent 3	2023
	Methyl ethyl ketone {RoW}| market for methyl ethyl ketone | Cut-off, U	ecoinvent 3	2023
	Phosphoric acid, industrial grade, without water, in 85% solution state {GLO}| market for phosphoric acid, industrial grade, without water, in 85% solution state | Cut-off, U	ecoinvent 3	2023

Flow	Dataset	Data Source	Publication Date
WD-40 Aerosol	Lubricating oil {RoW}| market for lubricating oil | Cut-off, U	ecoinvent 3	2023
	Carbon dioxide, liquid {RoW}| market for carbon dioxide, liquid | Cut-off, U	ecoinvent 3	2023
Outflows			
Wastewater	Wastewater, average {RoW}| market for wastewater, average | Cut-off, U	ecoinvent 3	2023
Municipal Solid Waste	Municipal solid waste {RoW}| treatment of municipal solid waste, sanitary landfill | Cut-off, U	ecoinvent 3	2023
End-of-Life			
Aluminum Incineration	Scrap aluminium {RoW}| treatment of scrap aluminium, municipal incineration | Cut-off, U	ecoinvent 3	2023
Glass Incineration	Waste glass {GLO}| treatment of waste glass, municipal incineration | Cut-off, U	ecoinvent 3	2023
Steel Incineration	Scrap steel {RoW}| treatment of scrap steel, municipal incineration | Cut-off, U	ecoinvent 3	2023
Municipal Solid Waste Incineration	Municipal solid waste {RoW}| treatment of municipal solid waste, municipal incineration | Cut-off, U	ecoinvent 3	2023
Aluminum Landfill	Waste aluminium {RoW}| treatment of waste aluminium, sanitary landfill | Cut-off, U	ecoinvent 3	2023
Glass Landfill	Waste glass {GLO}| treatment of waste glass, sanitary landfill | Cut-off, U	ecoinvent 3	2023
Steel Landfill	Scrap steel {RoW}| treatment of scrap steel, inert material landfill | Cut-off, U	ecoinvent 3	2023
Municipal Solid Waste Landfill	Municipal solid waste {RoW}| treatment of municipal solid waste, sanitary landfill | Cut-off, U	ecoinvent 3	2023

3.7. DATA QUALITY

The data quality assessment addressed the following parameters: time-related coverage, geographical coverage, technological coverage, precision, completeness, representativeness, consistency, reproducibility, sources of data, and uncertainty.

Table 3. *Data quality assessment for Claridge Products*

Data Quality Parameter	Data Quality Discussion
Time-Related Coverage: Age of data and the minimum length of time over which data is collected	The most recent available data is used, all of which is less than 5 years old. Manufacturer-supplied data (primary data) are based on annual production and usage for the period of July 2023 to June 2024.
Geographical Coverage: Geographical area from which data for unit processes is collected to satisfy the goal of the study	The data used in this study provides the best possible representation available with the most recently published databases for Arkansas. Proxy data used in the model is representative of North American or global operations. Global data is considered an accurate representation of the actual processes.
Technology Coverage: Specific technology or technology mix	For the majority of processes, data utilized is representative of actual processing, transportation, manufacturing, and disposal operations. When direct datasets are not available, appropriate proxies representing similar processes or material components are utilized.
Precision: Measure of the variability of the data values for each data expressed	Precision of results is not quantified due to a lack of data. Data collected was for a single year and is assumed to be an appropriate representation of the annual operations.
Completeness: Percentage of flow that is measured or estimated	The LCA model included all material and energy utilized in the production of Claridge Products. Per the PCR, processes whose total contribution to the final result, with respect to their mass and in relation to all considered impact categories, is less than 1% can be neglected. The sum of the neglected processes did not exceed 5% by mass or by 5% of the considered impact categories.
Representativeness: Qualitative assessment of the degree to which the data set reflects the true population of interest	The data for the processes utilized in the model represent typical or average processes as reported by industry wide or representative assessments. As such, among the technologies and equipments represented in these models, some variation may exist when compared to Claridge's actual supply chain. However, these variations are unavoidable as data collection throughout the entire supply chain is not feasible within the scope of this model.
Consistency: Qualitative assessment of whether the study methodology is applied uniformly to the various components of the analysis	This model utilizes consistent data sources. Some variation occurs between life cycle stages where primary data is not available or appropriate.
Reproducibility: Qualitative assessment of the extent to which information about the methodology and data values would allow an independent practitioner to reproduce the results reported in the study	From the data and sources provided within this document the model and results are highly reproducible by other LCA practitioners. All assumptions, models, and data sources are documented.
Sources of the Data: Description of all primary and secondary data sources	Primary data including energy use, material use, and outflows from the manufacturing facility represent a full year of actual data and as such is considered high quality. For secondary data, Ecoinvent 3.10 or USLCI 12.0 data is used and considered sufficiently high quality.
Uncertainty of the Information: Uncertainty related to data, models, and assumptions	The uncertainty of the materials in Claridge products and packaging is low. Actual supplier data for upstream operations was not available so the model relied on representative databases. The databases are recent, but most are lacking geographic specificity.

3.8 PERIOD UNDER REVIEW

Data was collected for July 2023 to June 2024.

3.9 COMPARABILITY AND BENCHMARKING

The PCR this EPD was based on was written to determine the potential environmental impacts of a furniture workspace product from cradle-to-gate with options. It was not written to support comparative assertions. EPDs based on different PCRs, or different calculation models, may not be comparable. When attempting to compare EPDs or life cycle impacts of products from different companies, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the product modeled. Finally, in accordance with ISO 21930:2017, the comparability of EPDs is limited to those applying a functional unit.

3.10 ESTIMATES AND ASSUMPTIONS

The study assumes the reference service life is 10 years and nine replacements in that service life are included. Allocation of raw materials and utility use was based on a physical (mass and area) basis. Packaging materials are assumed to be disposed in a landfill 100% of the time. Installation materials (spray adhesive, aluminum sheet, buffer solution, oil, caustic soda, epoxy, polymer adhesive, thread locker, mineral spirits, disinfectant, tint, lacquer and lubricant) were reported by the manufacturer and allocated on a physical (mass and area) basis. Water usage from electricity is not included.

End-of-life modeling was based on 2018 US EPA waste statistics, and therefore the study assumes 25.0% of glass materials, 33.1% of steel materials and 17.2% of aluminum materials are recycled at the end of life. For the remaining unrecycled materials, it is assumed that 20% goes to incineration and 80% goes to landfill. All disposal is assumed to travel 100 km by truck and is allocated on a mass and area basis.

3.11 UNITS

All data and results are presented using SI units.

4. Technical Information and Scenarios

4.1 MATERIAL COMPOSITION

The material compositions of all Display Cases – Cabinets with Aluminum Trim products represented by this EPD are presented in Tables 4-5 per 1 m^2 of product. Note that there are no reportable dangerous or hazardous substances, as classified by US regulatory bodies, found in the final form of the products.

Table 4. *Product Composition Part 1*

Product	370 Case		390 Case		Classic Cabinet		Deluxe Cabinet		Hinged Door Contemporary		Imperial Case		Large Door Contemporary		Recycled Content
Material	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent
ABS	0.0%	0.00	0.8%	2.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	1.6%	1.01	0.0%
Aero-Mold Plastic	0.0%	0.00	0.0%	0.00	0.1%	0.02	0.1%	0.02	0.1%	0.02	0.0%	0.00	0.0%	0.00	0.0%
Aluminum	0.0%	0.00	0.0%	0.00	0.6%	0.23	0.6%	0.17	0.6%	0.23	0.0%	0.00	0.3%	0.17	0.0%
Aluminum w/ Vinyl Finish	0.0%	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Claridge Cork	9.8%	13.15	8.8%	22.20	18.7%	6.58	0.0%	0.00	18.6%	6.58	16.9%	9.87	15.7%	9.87	0.0%
Cold Rolled Steel	1.5%	1.96	0.8%	1.96	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Cork	0.0%	0.00	0.0%	0.00	0.0%	0.00	4.5%	1.22	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Extruded Aluminum	11.9%	15.94	11.6%	29.27	26.9%	9.48	23.6%	6.43	27.5%	9.74	17.4%	10.15	29.1%	18.35	0.0%
FSC Duracore	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Galvanized Steel	0.0%	0.00	0.0%	0.00	0.2%	0.06	0.4%	0.12	0.2%	0.06	0.1%	0.08	0.0%	0.00	0.0%
Laminate Plastic	2.8%	3.77	3.0%	7.55	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
LED Lighting	0.7%	0.93	0.4%	0.93	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Medium Density Fiberboard	27.7%	37.17	18.7%	47.32	19.2%	6.76	18.6%	5.07	19.1%	6.76	17.4%	10.13	16.1%	10.13	0.0%
Nylon	0.0%	0.04	0.0%	0.02	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.02	0.0%	0.00	0.0%
Particleboard	0.0%	0.00	17.2%	43.44	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Polyethylene Terephthalate	0.1%	0.11	0.1%	0.23	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Polypropylene	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.01	0.0%
PVC	0.0%	0.00	0.0%	0.00	0.5%	0.19	0.0%	0.00	0.5%	0.19	0.0%	0.00	0.0%	0.00	0.0%

Steel	0.1%	0.19	0.1%	0.23	0.0%	0.00	0.3%	0.07	0.0%	0.00	0.2%	0.09	0.0%	0.00	0.0%
Stainless Steel	0.0%	0.00	0.0%	0.00	0.4%	0.15	0.6%	0.15	0.4%	0.15	0.0%	0.00	0.1%	0.07	0.0%
Tempered Glass	44.8%	60.15	37.9%	95.62	32.9%	11.57	50.9%	13.88	32.6%	11.57	47.5%	27.76	36.7%	23.13	0.0%
White Glue	0.7%	0.90	0.7%	1.70	0.4%	0.15	0.4%	0.11	0.4%	0.15	0.4%	0.22	0.4%	0.22	0.0%
Anodized Aluminum	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Vinyl	0.1%	0.07	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.05	0.0%	0.00	0.0%
Zinc Alloy	0.0%	0.00	0.0%	0.02	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Packaging															
Wood	6.62	69%	8.30	69%	3.47	69%	3.58	69%	3.49	69%	3.84	69%	4.14	69%	0%
Steel	0.05	1%	0.06	1%	0.03	1%	0.03	1%	0.03	1%	0.03	1%	0.03	1%	0%
Polyester	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	50%
Cardboard	2.24	23%	2.81	23%	1.17	23%	1.21	23%	1.18	23%	1.30	23%	1.40	23%	75%
PPE	0.59	6%	0.74	6%	0.31	6%	0.32	6%	0.31	6%	0.34	6%	0.37	6%	50%
Paper	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0%
Polystyrene	0.10	1%	0.13	1%	0.05	1%	0.06	1%	0.05	1%	0.06	1%	0.06	1%	50%
Product Total Weight (kg)	**134.40**		**252.49**		**35.17**		**27.25**		**35.43**		**58.38**		**62.96**		
Product Total Area (m^2)	**2.97**		**4.46**		**1.49**		**1.11**		**1.49**		**2.23**		**2.23**		
Product Weight / Area (kg/m^2)	**45.21**		**56.62**		**23.66**		**24.45**		**23.84**		**26.18**		**28.24**		

Table 5. *Product Composition Part 2*

Product	Premiere Display Case with Base		Revere Cabinet		Rival Cabinet		Universal Cabinet		Wall Mounted Premiere Display Case		Recycled Content
Material	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent	kg	Percent
ABS	0.6%	1.11	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.6%	1.11	0.0%
Aero-Mold Plastic	0.0%	0.00	0.0%	0.02	0.1%	0.01	0.1%	0.03	0.0%	0.00	0.0%
Aluminum	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Aluminum w/ Vinyl Finish	0.0%	0.01	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.01	0.0%
Claridge Cork	6.8%	13.15	17.6%	9.87	0.0%	0.00	17.0%	9.87	7.4%	13.15	0.0%
Cold Rolled Steel	1.0%	1.96	0.0%	0.00	0.0%	0.00	0.0%	0.00	1.1%	1.96	0.0%
Cork	0.0%	0.00	0.0%	0.00	1.8%	0.31	0.0%	0.00	0.0%	0.00	0.0%
Extruded Aluminum	21.6%	41.89	17.3%	9.70	23.2%	3.88	21.7%	12.61	22.5%	40.06	0.0%
FSC Duracore	0.0%	0.00	0.0%	0.00	17.6%	2.94	0.0%	0.00	0.0%	0.00	0.0%
Galvanized Steel	0.0%	0.00	0.2%	0.10	0.2%	0.04	0.1%	0.08	0.0%	0.00	0.0%
Laminate Plastic	3.8%	7.40	0.0%	0.00	0.0%	0.00	0.0%	0.00	3.2%	5.66	0.0%
LED Lighting	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Medium Density Fiberboard	25.3%	49.00	18.1%	10.14	0.0%	0.00	17.5%	10.13	20.9%	37.17	0.0%
Nylon	0.0%	0.04	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.04	0.0%
Particleboard	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Polyethylene Terephthalate	0.1%	0.11	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.06	0.0%
Polypropylene	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
PVC	0.6%	1.13	0.4%	0.23	0.1%	0.01	0.4%	0.23	0.6%	1.13	0.0%
Steel	0.1%	0.19	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.1%	0.19	0.0%
Stainless Steel	0.1%	0.16	0.1%	0.08	0.5%	0.08	0.4%	0.23	0.0%	0.00	0.0%
Tempered Glass	39.4%	76.34	45.4%	25.45	55.3%	9.25	41.8%	24.29	42.9%	76.34	0.0%
White Glue	0.6%	1.20	0.4%	0.22	0.7%	0.11	0.4%	0.22	0.5%	0.90	0.0%
Anodized Aluminum	0.0%	0.00	0.4%	0.23	0.7%	0.11	0.6%	0.34	0.0%	0.00	0.0%

Vinyl	0.0%	0.07	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.07	0.0%
Zinc Alloy	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
Packaging											
Wood	6.95	69%	3.68	69%	3.02	69%	3.81	69%	8.77	69%	0%
Steel	0.05	1%	0.03	1%	0.02	1%	0.03	1%	0.07	1%	0%
Polyester	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	50%
Cardboard	2.35	23%	1.25	23%	1.02	23%	1.29	23%	2.97	23%	75%
PPE	0.62	6%	0.33	6%	0.27	6%	0.34	6%	0.78	6%	50%
Paper	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0.00	0%	0%
Polystyrene	0.11	1%	0.06	1%	0.05	1%	0.06	1%	0.14	1%	50%
Product Total Weight (kg)	**193.78**		**56.03**		**16.75**		**58.04**		**177.86**		
Product Total Area (m^2)	**4.09**		**2.23**		**0.81**		**2.23**		**2.97**		
Product Weight / Area (kg/m^2)	**47.40**		**25.13**		**20.60**		**26.03**		**59.83**		

4.2 MANUFACTURE

Extruded Aluminum at the Harrison Extrusion plant begins with raw aluminum stock. The stock is preheated in a natural gas fired oven and then soldered and pressed through a dye. The pressed stock is then air-cooled by a fan, and then further cooled on a cooling table using compressed air. The stock is then cut to shape and tempered in an oven. Next the aluminum is either anodized or painted. Anodized material undergoes a series of baths and rinse cycles including a sulfuric bath, and caustic soda bath, a mud bath, anodization, sealant and finally a hot water rinse. Painted material is powder coated and cured. Finally, all material is staged, inspected and packaged for shipping to the main Harrison manufacturing plant.

Raw materials arrive at the Harrison manufacturing site. Cork is cut to size, adhesives are applied, and hardboard and aluminum trim are attached. Glass is then inserted, and accessory and mounting hardware is attached. Finally, the final products are packaged and shipped out to the customers.

4.3 PRODUCT TRANSPORT

Table 6. *Product Transportation*

Name	Unit per 1 m^2	Value	
		Imperial Case	Wall Mounted Premiere Display Case
Type of transport	-	Truck Transport	
Type of vehicle	-	Diesel	
Distance	km	1.47E+03	1.49E+03

4.4 PRODUCT INSTALLATION

Table 7. *Product Installation*

Name	Unit per 1 m^2	Value	
		Wall Mounted Premiere Display Case	Wall Mounted Premiere Display Case
Description of the installation process	Product is installed directly onto a wall in accordance with Claridge installation standards		
Ancillary materials	kg	0.00E+00	
Product loss per functional unit	kg	1.35E+00	6.47E+01
Energy use during installation (by energy carrier)	MJ	0.00E+00	
Water use during installation (by water source)	m^3	0.00E+00	
Direct emissions to ambient air, soil and water	kg	0.00E+00	
Packaging waste (landfill)	kg	5.57E+00	1.27E+01
Biogenic carbon content of packaging	kg CO_2	8.62E+00	1.97E+01

4.4 PRODUCT USE

Table 8. *Product Use*

Name	Unit per 1 m^2	Value	
		Wall Mounted Premiere Display Case	Wall Mounted Premiere Display Case
Water consumption (from tap, to sewer)	m^3	0.00E+00	0.00E+00
Electricity consumption	kWh	0.00E+00	0.00E+00
Other energy carriers	MJ	0.00E+00	0.00E+00
Equipment output	kW	0.00E+00	0.00E+00
Direct emissions to ambient air, soil, and water	kg	0.00E+00	0.00E+00

In accordance with the PCR, no use phase impacts due to the energy usage of the lighting components in the 370 Case or 390 Case is declared. In lieu of use phase assumptions associated with these electrical components, this EPD reports that the energy usage of these products' case lighting is five (5) watts per foot of light.

4.5 PRODUCT REPLACEMENT

The replacement (B4) stage is the sum of the impacts for the life cycle of the product (A1+A2+A3+A4+A5+C1+C2+C3+C4) multiplied by the number of times it is replaced during the 10-year product service life of 10 years. The components of display cases have a warranty of one year, so for this study is was assumed that the product is replaced nine times over a ten-year period.

4.6 DISPOSAL

The end-of-life scenario was modeled based on the 2018 US EPA Advancing Sustainable Materials Management studies. Based on that study it is assumed that 25.0% of glass materials, 33.1% of steel materials and 17.2% of aluminum materials are recycled at the end of life. For the remaining unrecycled materials, it is assumed that 20% goes to incineration and 80% goes to landfill. 100 kilometers is the distance assumed that the waste travels via truck before reaching the landfill.

Table 9. *Product End-of-Life*

Name		Unit per 1 m^2	Value	
			Wall Mounted Premiere Display Case	Wall Mounted Premiere Display Case
Assumptions for scenario development			2018 US EPA Statistics and PCR Guidance	
Collection process (specified by type)	Collected separately	kg	6.07E+00	1.42E+01
	Collected with mixed construction waste	kg	2.11E+01	4.74E+01
Recovery (specified by type)	Reuse	kg	0.00E+00	0.00E+00
	Recycling	kg	7.98E-01	2.34E+00
	Landfill	kg	2.11E+01	4.74E+01
	Incineration	kg	5.28E+00	1.19E+01
Disposal (specified by type)	Product or material for final deposition	kg	2.72E+01	6.16E+01
Removals of biogenic carbon (excluding packaging)		kg C	0.00E+00	0.00E+00

5. LCA: Results

Results of the Life Cycle Assessment are presented below per 1 m^2 of product. It is noted that LCA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks. Note that inputs and outputs related to combustible material were transformed using the heat of combustion values based on higher heating values (HHVs), in accordance with Section 4.3.3.1 of ISO 14044:2006.

Table 10. Imperial Case TRACI Results – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	9.89E+01	1.36E+00	2.15E+01	3.71E+00	8.34E+00	1.30E+03	2.43E-01	2.37E+00	8.28E+00
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	1.11E-06	5.20E-11	1.73E-07	1.41E-10	6.67E-08	1.23E-05	9.27E-12	2.80E-09	8.55E-09
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	7.14E-01	8.14E-03	1.28E-01	2.21E-02	4.48E-02	8.31E+00	1.45E-03	1.39E-03	3.10E-03
EP	Eutrophication potential	kg N-Eq.	5.17E-01	4.54E-04	8.43E-02	1.23E-03	1.18E-01	9.93E+00	8.08E-05	4.26E-03	3.78E-01
SP	Smog formation potential	kg O_3-Eq.	7.99E+00	2.23E-01	8.16E-01	6.06E-01	5.00E-01	9.24E+01	3.97E-02	4.04E-02	5.24E-02
FFD	Fossil fuel depletion	MJ-surplus	1.24E+01	2.61E+00	2.68E+01	7.11E+00	2.47E+00	4.67E+02	4.65E-01	3.32E-03	9.41E-03

Table 11. Universal Cabinet TRACI Results – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	1.31E+02	1.31E+00	2.14E+01	3.69E+00	9.90E+00	1.60E+03	2.41E-01	2.22E+00	7.78E+00
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	1.57E-06	4.99E-11	1.71E-07	1.41E-10	8.98E-08	1.66E-05	9.19E-12	2.75E-09	8.55E-09
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	8.99E-01	7.81E-03	1.27E-01	2.20E-02	5.39E-02	1.00E+01	1.44E-03	1.35E-03	3.03E-03
EP	Eutrophication potential	kg N-Eq.	6.93E-01	4.35E-04	8.38E-02	1.23E-03	1.25E-01	1.14E+01	8.02E-05	4.01E-03	3.54E-01
SP	Smog formation potential	kg O_3-Eq.	1.01E+01	2.14E-01	8.12E-01	6.03E-01	6.05E-01	1.12E+02	3.94E-02	3.92E-02	5.21E-02
FFD	Fossil fuel depletion	MJ-surplus	1.75E+01	2.50E+00	2.67E+01	7.07E+00	2.71E+00	5.12E+02	4.62E-01	3.22E-03	9.40E-03

Table 12. Wall Mounted Premiere Display Case TRACI Results – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	2.68E+02	2.88E+00	4.92E+01	8.48E+00	2.11E+01	3.35E+03	5.54E-01	4.98E+00	1.74E+01
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	3.54E-06	1.10E-10	3.95E-07	3.24E-10	2.02E-07	3.74E-05	2.11E-11	6.23E-09	1.94E-08
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	1.85E+00	1.72E-02	2.93E-01	5.07E-02	1.13E-01	2.11E+01	3.31E-03	3.04E-03	6.85E-03
EP	Eutrophication potential	kg N-Eq.	1.37E+00	9.60E-04	1.92E-01	2.82E-03	2.76E-01	2.38E+01	1.85E-04	8.99E-03	7.93E-01
SP	Smog formation potential	kg O_3-Eq.	2.10E+01	4.71E-01	1.87E+00	1.39E+00	1.28E+00	2.37E+02	9.06E-02	8.84E-02	1.18E-01
FFD	Fossil fuel depletion	MJ-surplus	3.69E+01	5.53E+00	6.13E+01	1.63E+01	6.06E+00	1.14E+03	1.06E+00	7.28E-03	2.12E-02

Table 13. Imperial Case CML Results – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	9.97E+01	1.37E+00	2.21E+01	3.72E+00	8.87E+00	1.34E+03	2.44E-01	2.36E+00	1.02E+01
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	6.81E-07	5.15E-11	1.17E-07	1.40E-10	4.18E-08	7.64E-06	9.18E-12	2.22E-09	6.05E-09
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	7.16E-01	6.72E-03	1.41E-01	1.83E-02	4.52E-02	8.39E+00	1.20E-03	1.10E-03	2.66E-03
EP	Eutrophication potential	kg$(PO_4)^3$-Eq.	2.62E-01	1.19E-03	3.52E-02	3.24E-03	4.81E-02	4.40E+00	2.12E-04	1.81E-03	1.37E-01
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg C_2H_4-Eq.	3.63E-02	3.10E-04	1.19E-02	8.42E-04	3.00E-03	4.92E-01	5.52E-05	3.68E-05	2.18E-03
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	1.21E-02	0.00E+00	1.94E-05	0.00E+00	6.07E-04	1.15E-01	0.00E+00	3.94E-07	8.35E-07
ADPF	Abiotic depletion potential for fossil resources	MJ	5.20E+02	1.75E+01	2.09E+02	4.77E+01	4.01E+01	7.55E+03	3.12E+00	3.63E-01	1.03E+00

Table 14. Universal Cabinet CML Results – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	1.32E+02	1.31E+00	2.20E+01	3.70E+00	1.04E+01	1.64E+03	2.42E-01	2.22E+00	9.61E+00
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	9.78E-07	4.94E-11	1.16E-07	1.39E-10	5.65E-08	1.04E-05	9.11E-12	2.17E-09	6.05E-09
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	9.06E-01	6.44E-03	1.40E-01	1.82E-02	5.46E-02	1.02E+01	1.19E-03	1.07E-03	2.60E-03
EP	Eutrophication potential	kg$(PO_4)^3$-Eq.	3.46E-01	1.14E-03	3.49E-02	3.22E-03	5.16E-02	5.11E+00	2.10E-04	1.70E-03	1.29E-01
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg C_2H_4-Eq.	4.60E-02	2.97E-04	1.19E-02	8.38E-04	3.47E-03	5.82E-01	5.48E-05	3.62E-05	2.05E-03
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	1.51E-02	0.00E+00	1.93E-05	0.00E+00	7.56E-04	1.43E-01	0.00E+00	3.87E-07	8.50E-07
ADPF	Abiotic depletion potential for fossil resources	MJ	7.54E+02	1.68E+01	2.08E+02	4.75E+01	5.17E+01	9.73E+03	3.10E+00	3.53E-01	1.03E+00

Table 15. Wall Mounted Premiere Display Case CML Results – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP	Global warming potential	kg CO_2-Eq.	2.70E+02	2.89E+00	5.06E+01	8.51E+00	2.23E+01	3.43E+03	5.56E-01	4.97E+00	2.15E+01
ODP	Depletion potential of the stratospheric ozone layer	kg CFC-11 Eq.	2.28E-06	1.09E-10	2.68E-07	3.21E-10	1.31E-07	2.43E-05	2.09E-11	4.91E-09	1.37E-08
AP Air	Acidification potential for air emissions	kg SO_2-Eq.	1.87E+00	1.42E-02	3.23E-01	4.18E-02	1.15E-01	2.14E+01	2.73E-03	2.41E-03	5.88E-03
EP	Eutrophication potential	kg$(PO_4)^3$-Eq.	6.82E-01	2.52E-03	8.03E-02	7.41E-03	1.13E-01	1.06E+01	4.84E-04	3.83E-03	2.88E-01
POCP	Formation potential of tropospheric ozone photochemical oxidants	kg C_2H_4-Eq.	1.04E-01	6.55E-04	2.73E-02	1.93E-03	7.89E-03	1.32E+00	1.26E-04	8.23E-05	4.59E-03
ADPE	Abiotic depletion potential for non-fossil resources	kg Sb-Eq.	3.58E-02	0.00E+00	4.43E-05	0.00E+00	1.79E-03	3.39E-01	0.00E+00	8.77E-07	1.93E-06
ADPF	Abiotic depletion potential for fossil resources	MJ	1.50E+03	3.71E+01	4.77E+02	1.09E+02	1.07E+02	2.02E+04	7.13E+00	7.98E-01	2.32E+00

Table 16. Imperial Case Resource Use Results – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
RPR_E	Renewable primary energy as energy carrier	MJ	4.15E+02	0.00E+00	1.62E+02	0.00E+00	2.89E+01	5.46E+03	0.00E+00	5.34E-02	2.19E-01
RPR_M	Renewable primary energy resources as material utilization	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_E$	Nonrenewable primary energy as energy carrier	MJ	3.92E+02	1.75E+01	2.14E+02	4.77E+01	4.35E+01	6.47E+03	3.12E+00	4.06E-01	1.31E+00
$NRPR_M$	Nonrenewable primary energy as material utilization	MJ	1.89E+02	0.00E+00	0.00E+00	0.00E+00	9.46E+00	1.79E+03	0.00E+00	0.00E+00	0.00E+00
SM	Use of secondary material	kg	0.00E+00	0.00E+00	1.24E+00	0.00E+00	0.00E+00	1.11E+01	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy recovered from disposed waste	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m^3	1.17E+01	0.00E+00	7.41E-01	0.00E+00	1.03E+01	2.11E+02	5.28E-01	1.64E-01	0.00E+00

Table 17. Universal Cabinet Resource Use Results – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
RPR_E	Renewable primary energy as energy carrier	MJ	4.73E+02	0.00E+00	1.61E+02	0.00E+00	3.18E+01	6.00E+03	0.00E+00	5.19E-02	2.18E-01
RPR_M	Renewable primary energy resources as material utilization	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_E$	Nonrenewable primary energy as energy carrier	MJ	6.65E+02	1.68E+01	2.13E+02	4.75E+01	5.71E+01	9.03E+03	3.10E+00	3.95E-01	1.30E+00
$NRPR_M$	Nonrenewable primary energy as material utilization	MJ	1.92E+02	0.00E+00	0.00E+00	0.00E+00	9.58E+00	1.81E+03	0.00E+00	0.00E+00	0.00E+00
SM	Use of secondary material	kg	0.00E+00	0.00E+00	1.23E+00	0.00E+00	0.00E+00	1.11E+01	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy recovered from disposed waste	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m^3	1.05E+01	0.00E+00	1.02E+01	0.00E+00	1.01E+00	1.95E+02	0.00E+00	4.82E-03	-7.85E-02

Table 18. Wall Mounted Premiere Display Case Resource Use Results – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
RPR_E	Renewable primary energy as energy carrier	MJ	7.64E+02	0.00E+00	3.70E+02	0.00E+00	5.68E+01	1.07E+04	0.00E+00	1.17E-01	4.93E-01
RPR_M	Renewable primary energy resources as material utilization	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
$NRPR_E$	Nonrenewable primary energy as energy carrier	MJ	1.22E+03	3.71E+01	4.88E+02	1.09E+02	1.16E+02	1.78E+04	7.13E+00	8.93E-01	2.94E+00
$NRPR_M$	Nonrenewable primary energy as material utilization	MJ	4.49E+02	0.00E+00	0.00E+00	0.00E+00	2.25E+01	4.25E+03	0.00E+00	0.00E+00	0.00E+00
SM	Use of secondary material	kg	0.00E+00	0.00E+00	2.83E+00	0.00E+00	0.00E+00	2.54E+01	0.00E+00	0.00E+00	0.00E+00
RSF	Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	Use of nonrenewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RE	Energy recovered from disposed waste	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	Use of net fresh water	m^3	1.81E+00	0.00E+00	2.36E+01	0.00E+00	1.21E+00	2.38E+02	0.00E+00	1.08E-02	-1.77E-01

Table 19. Imperial Case Output Flows and Waste Categories – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
HWD	Hazardous waste disposed	kg	4.68E-02	0.00E+00	8.98E-04	0.00E+00	2.40E-03	4.52E-01	0.00E+00	1.63E-05	4.49E-05
NHWD	Non-hazardous waste disposed	kg	4.15E+00	0.00E+00	3.62E+00	0.00E+00	7.14E+00	3.42E+02	0.00E+00	1.87E+00	2.12E+01
HLRW	High-level radioactive waste	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ILLRW	Intermediate- and low-level radioactive waste	kg	8.86E-04	0.00E+00	7.22E-05	0.00E+00	4.88E-05	9.11E-03	0.00E+00	6.30E-07	4.21E-06
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 20. Universal Cabinet Output Flows and Waste Categories – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
HWD	Hazardous waste disposed	kg	5.84E-02	0.00E+00	8.91E-04	0.00E+00	2.98E-03	5.61E-01	0.00E+00	1.60E-05	4.51E-05
NHWD	Non-hazardous waste disposed	kg	5.30E+00	0.00E+00	3.59E+00	0.00E+00	7.14E+00	3.50E+02	0.00E+00	1.99E+00	2.09E+01
HLRW	High-level radioactive waste	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ILLRW	Intermediate- and low-level radioactive waste	kg	1.52E-03	0.00E+00	7.16E-05	0.00E+00	8.05E-05	1.51E-02	0.00E+00	6.15E-07	4.18E-06
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 21. Wall Mounted Premiere Display Case Output Flows and Waste Categories – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
HWD	Hazardous waste disposed	kg	1.35E-01	0.00E+00	2.05E-03	0.00E+00	6.87E-03	1.29E+00	0.00E+00	3.64E-05	1.02E-04
NHWD	Non-hazardous waste disposed	kg	1.08E+01	0.00E+00	8.25E+00	0.00E+00	1.63E+01	7.88E+02	0.00E+00	4.58E+00	4.75E+01
HLRW	High-level radioactive waste	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
ILLRW	Intermediate- and low-level radioactive waste	kg	2.49E-03	0.00E+00	1.65E-04	0.00E+00	1.35E-04	2.52E-02	0.00E+00	1.39E-06	9.45E-06
CRU	Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MR	Materials for recycling	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
MER	Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
EE	Recovered energy exported from system	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 22. Imperial Case Resource Use – Biogenic Carbon – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
BCRP	Biogenic Carbon Removal from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	Biogenic Carbon Emissions from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	Biogenic Carbon Removal from Packaging	kg CO_2	8.64E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.77E+01	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.64E+00	7.77E+01	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	Calcination Carbon Emissions	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	Carbonation Carbon Removal	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 23. Universal Cabinet Resource Use – Biogenic Carbon – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
BCRP	Biogenic Carbon Removal from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	Biogenic Carbon Emissions from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	Biogenic Carbon Removal from Packaging	kg CO_2	8.59E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.73E+01	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.59E+00	7.73E+01	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	Calcination Carbon Emissions	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	Carbonation Carbon Removal	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 24. Wall Mounted Premiere Display Case Resource Use – Biogenic Carbon – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
BCRP	Biogenic Carbon Removal from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCEP	Biogenic Carbon Emissions from Product	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BCRK	Biogenic Carbon Removal from Packaging	kg CO_2	1.97E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.78E+02	0.00E+00	0.00E+00	0.00E+00
BCEK	Biogenic Carbon Emissions from Packaging	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E+01	1.78E+02	0.00E+00	0.00E+00	0.00E+00
BCEW	Biogenic Carbon Emissions from Combustion of Waste from Renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCE	Calcination Carbon Emissions	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CCR	Carbonation Carbon Removal	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
CWNR	Carbon Emissions from Combustion of Waste from Non-renewable Sources Used in Production Process	kg CO_2	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Table 25. Imperial Case – IPCC6 GWP100 – Minimum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP_{100}	Global warming potential, Fossil	kg CO_2-Eq.	1.00E+02	1.37E+00	2.05E+01	3.73E+00	6.58E+00	1.22E+03	2.44E-01	2.36E+00	9.92E-01
	Global warming potential, Biogenic including CO_2 Uptake	kg CO_2-Eq.	5.21E+00	8.92E-04	4.49E+00	2.43E-03	3.66E+00	2.62E+02	1.59E-04	3.30E+00	1.25E+01
	Global warming potential, Land Transformation	kg CO_2-Eq.	2.74E-01	0.00E+00	9.46E-03	0.00E+00	1.43E-02	2.69E+00	0.00E+00	4.15E-04	3.53E-04
	Global warming potential, CO_2 Uptake	kg CO_2-Eq.	-1.69E+01	-8.92E-04	-9.62E+00	-2.43E-03	-1.33E+00	-2.51E+02	-1.59E-04	-2.19E-03	-4.71E-03
	Global warming potential, Biogenic without CO_2 Uptake	kg CO_2-Eq.	2.21E-01	0.00E+00	1.67E+00	0.00E+00	2.24E+00	1.18E+02	0.00E+00	2.99E-04	8.93E+00

Table 26. Universal Cabinet – IPCC6 GWP100 – Base Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP_{100}	Global warming potential, Fossil	kg CO_2-Eq.	1.33E+02	1.31E+00	2.04E+01	3.71E+00	8.20E+00	1.53E+03	2.42E-01	2.22E+00	9.56E-01
	Global warming potential, Biogenic including CO_2 Uptake	kg CO_2-Eq.	6.49E+00	8.55E-04	4.46E+00	2.41E-03	3.65E+00	2.65E+02	1.58E-04	3.10E+00	1.17E+01
	Global warming potential, Land Transformation	kg CO_2-Eq.	3.56E-01	0.00E+00	9.39E-03	0.00E+00	1.84E-02	3.47E+00	0.00E+00	4.01E-04	3.63E-04
	Global warming potential, CO_2 Uptake	kg CO_2-Eq.	-1.82E+01	-8.55E-04	-9.54E+00	-2.41E-03	-1.39E+00	-2.62E+02	-1.58E-04	-2.13E-03	-4.73E-03
	Global warming potential, Biogenic without CO_2 Uptake	kg CO_2-Eq.	2.63E-01	0.00E+00	1.66E+00	0.00E+00	2.20E+00	1.13E+02	0.00E+00	2.84E-04	8.37E+00

Table 27. Wall Mounted Premiere Display Case – IPCC6 GWP100 – Maximum Configuration

Parameter	Parameter	Unit per 1 m^2	Life Cycle Stage								
			A1	A2	A3	A4	A5	B4	C2	C3	C4
GWP_{100}	Global warming potential, Fossil	kg CO_2-Eq.	2.71E+02	2.90E+00	4.69E+01	8.53E+00	1.71E+01	3.19E+03	5.57E-01	4.98E+00	2.15E+00
	Global warming potential, Biogenic including CO_2 Uptake	kg CO_2-Eq.	1.38E+01	1.89E-03	1.03E+01	5.55E-03	8.30E+00	5.90E+02	3.63E-04	6.94E+00	2.62E+01
	Global warming potential, Land Transformation	kg CO_2-Eq.	8.53E-01	0.00E+00	2.16E-02	0.00E+00	4.40E-02	8.29E+00	0.00E+00	9.04E-04	8.25E-04
	Global warming potential, CO_2 Uptake	kg CO_2-Eq.	-3.53E+01	-1.89E-03	-2.20E+01	-5.55E-03	-2.87E+00	-5.42E+02	-3.63E-04	-4.81E-03	-1.07E-02
	Global warming potential, Biogenic without CO_2 Uptake	kg CO_2-Eq.	5.51E-01	0.00E+00	3.82E+00	0.00E+00	5.04E+00	2.53E+02	0.00E+00	6.40E-04	1.87E+01

6. LCA: Interpretation

When evaluating the full cradle-to-gate with options results, the replacement (B4) stage is the primary driver of results for all impact categories. However, as described in Section 4.5, the replacement stage accounts for product replacement across a ten-year period and is the sum of A1-A5 and C1-C4. Therefore, when evaluating one product without replacements, the product production stage (A1-A3) is the primary driver of results for all impact categories for display cases – cabinets with aluminum trim.

While quality control was undertaken at each step in building the LCI and conducting the LCIA, uncertainty is still present in the results since the data evaluated represents only one year of manufacturing information. Some level of uncertainty is inherent in conducting LCA and decision making must reflect this fact. Additionally, the user should be aware of the uncertainty in the final results, due to and not limited to, the practitioner's assumptions, the source of the data used in the study, and the specifics of the products as outlined in Sections 3.0 and 4.0 of this EPD.

7. Additional Environmental Information

7.1 ENVIRONMENT AND HEALTH DURING MANUFACTURING

Claridge Products and Equipment has implemented a comprehensive employee health and safety program in all its manufacturing facilities. Safety team leaders regularly review and analyze all materials used during manufacturing to ensure employee wellbeing. Claridge Products and Equipment meets or exceeds all OSHA requirements.

7.2 ENVIRONMENT AND HEALTH DURING INSTALLATION OR USE

No damage to health or impairment is expected under normal use corresponding to the intended use or installation of the product following standard guidelines.

7.5 ENVIRONMENTAL ACTIVITIES AND CERTIFICATIONS

We are committed to protecting and preserving our natural environment through a variety of ongoing programs and certifications. Claridge Cork is made from the bark of cork oak trees without damaging the tree itself – making it both rapidly renewable and recyclable. Our carton and crating materials are composed of post-industrial and recycled materials. Tons of material are eliminated from the landfill waste stream through our in-house recycling programs. Our display cases/cabinets with aluminum trim have achieved SCS Indoor Advantage™ Gold certification.

7.6 FURTHER INFORMATION

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8. References

1. Claridge Products Life Cycle Assessment, Sustainable Solutions Corporation, April 2025
2. ISO 14025:2006 Environmental labels and declarations – Type III environmental declarations – Principles and Procedures.
3. ISO 14040: 2006 Environmental Management – Life cycle assessment – Principles and Framework
4. ISO 14044: 2006/Amd 1:2017/ Amd 2:2020 Environmental Management – Life cycle assessment – Requirements and Guidelines.
5. ISO 21930: 2017 Sustainability in building construction – Environmental declaration of building products.
6. SCS Type III Environmental Declaration Program: Program Operator Manual. V12.0 December 2023. SCS Global Services.
7. BIFMA PCR for Office Furniture Workspace Products: UNCPC 3814, V2. NSF International. Valid through January 2030.

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