

## ENVIRONMENTAL PRODUCT DECLARATION

# ENTICE HP+

COMMERCIAL GLASS ENTRANCE DOORS



Entice HP+ is an entrance and storefront system.



CRL is the leading, full-service provider of architectural metals, glass fittings, and professional-grade glazing supplies. The company leverages more than 50 years of experience and a track record of industry firsts to offer a one-stop shop with a breadth of innovative product choices. From design to installation, CRL focuses on expanding opportunities for customers to turn bold architectural visions into real-world experiences. For more information go to [www.crlaurence.com](http://www.crlaurence.com)



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**ENTICE HP+**  
COMMERCIAL GLASS ENTRANCE DOORS

According to ISO 14025,  
EN 15804, and ISO21930:2017

EPD PROGRAM AND PROGRAM OPERATOR NAME, ADDRESS, LOGO, AND WEBSITE	UL Solutions 333 Pfingsten Rd, Northbrook IL, 60062 <a href="http://www.ul.com">www.ul.com</a> <a href="http://www.spot.ul.com">www.spot.ul.com</a>
GENERAL PROGRAM INSTRUCTIONS AND VERSION NUMBER	Program Operator Rules v 2.7 2022
MANUFACTURER NAME AND ADDRESS	C.R. Laurence 2200 E. 55th St, Vernon, CA, 90058
DECLARATION NUMBER	4791924172.101.1
DECLARED UNIT	1 m <sup>2</sup> of product
REFERENCE PCR AND VERSION NUMBER	NSF 1102-23 PCR For Fenestration Assemblies
DESCRIPTION OF PRODUCT APPLICATION/USE	Entice HP+ doors are used in entrance doors and storefronts
PRODUCT RSL DESCRIPTION (IF APPL.)	N/A
MARKETS OF APPLICABILITY	Commercial Buildings
DATE OF ISSUE	December 1st, 2025
PERIOD OF VALIDITY	5 Years
EPD TYPE	Product-specific
RANGE OF DATASET VARIABILITY	n/a
EPD SCOPE	Cradle to gate
YEAR(S) OF REPORTED PRIMARY DATA	2024
LCA SOFTWARE & VERSION NUMBER	Sphera LCA for Experts (fka GaBi) 10.9.1.19
LCI DATABASE(S) & VERSION NUMBER	Sphera MLC 2025.1
LCIA METHODOLOGY & VERSION NUMBER	IPCC AR6, TRACI 2.1, TRACI 2.2

The PCR review was conducted by:

NSF
PCR Review Panel
<a href="mailto:ncss@nsf.org">ncss@nsf.org</a>

This declaration was independently verified in accordance with ISO 14025: 2006.


INTERNAL  EXTERNAL

Cooper McCollum, UL Solutions 

This life cycle assessment was conducted in accordance with ISO 14044 and the reference PCR by:

WAP Sustainability

This life cycle assessment was independently verified in accordance with ISO 14044 and the reference PCR by:

Lucas Pedro Berman, Senda Consultorias 

**LIMITATIONS**

**Exclusions:** EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc.

**Accuracy of Results:** EPDs regularly rely on estimations of impacts; the level of accuracy in estimation of effect differs for any particular product line and reported impact.

**Comparability:** EPDs from different programs may not be comparable. Full conformance with a PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.



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## 1. Product Definition and Information

### 1.1. Description of Company/Organization

CRL is the leading, full-service provider of architectural metals, glass fittings, and professional-grade glazing supplies. The company leverages more than 50 years of experience and a track record of industry firsts to offer a one-stop shop with a breadth of innovative product choices. From design to installation, CRL focuses on expanding opportunities for customers to turn bold architectural visions into real-world experiences.

### 1.2. Product Description

#### Product Identification

The Entice® HP+ Entrance and Storefront System introduces engineering advancements that surpass industry standards in aesthetics and performance. Monumental glass doors spanning 10 feet tall and 4 feet wide can be specified with ultra-narrow 1-5/8" door stiles to convey a grand entrance and heavy-glass visuals. Narrow-frame sidelights and transom complete the striking look. As an AAMA CW Performance Class rated system with a full perimeter seal, Entice® HP+ offers year-round, all-weather performance that asserts its status as a next-generation entrance and storefront. Structural enhancements have also given the system superior design pressure capacities.



Figure 1: Entice HP+

### 1.3. Application

Entice HP+ doors are used in entrance doors and storefronts.

### 1.4. Declaration of Methodological Framework

This LCA follows an attributional approach.





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1.5. Technical Requirements

Table 1: Technical Details

NAME	UNIT	VALUE
Max door height	10 (3.05)	ft (m)
Max door width	4 (1.22)	ft (m)
Max system height with optional transom	12 (3.66)	ft (m)
Thermal Performance: U-factor	<0.37	Btu/hr.ft <sup>2</sup> .°F
Design Pressure Differential: Meets AAMA 101L/175 Deflection Criteria	30	Psf
Air infiltration: Exceeds ASHRAE 90.1-2022 Air Infiltration Requirements	0.16	cfm/ft <sup>2</sup> @ 1.57 psf
Water Penetration: Tested to AAMA 101 in accordance with ASTM E331	No uncontrolled water entry	-
Thermal Performance: Tested in accordance with ANSI/NFRC 100-200-CMA	As low as 0.37	U-Factor
Acoustic Performance: ASTM E90 and E1425	37 STC, 32 OITC	-
Life Cycle Performance: Tested to 1,000,000 cycles	Meets AAMA 920 Criteria	-
Forced Entry Resistance: AAMA-1304 @ 300lbf with no entry	Pass	-

2.1. Properties of Declared Product as Delivered

The product is purchased based on the required dimensions and delivered to site as components. The finished system is assembled on site.

2.2. Material Composition

The raw materials for the framing were obtained from Asia and the United States. The general compositions of the product is shown in Table 2.



**Table 2: Material Composition**

	NAME	COMPOSITION PERCENTAGE*
Framing	ABS - 3D Printed	<1%
	Acrylic Adhesive	<1%
	Aluminum Extrusion	54%
	Aluminum Sheet	10%
	Anodized Aluminum	<1%
	Coating Powder	<1%
	Composite Aluminum Plastic	<1%
	EPDM Gasket	<1%
	Fasteners	<1%
	Nylon	<1%
	PE/PP foam	<1%
	Thermoplastic Rubber	<1%
	304 Stainless Steel	34 %
Glazing	Aluminum Extrusion	2%
	Glass	98%
	Polycarbonate	<1%

*\*Due to rounding, the sum of components may not equal 100%*

The materials are delivered to the manufacturing facility via ship and truck and are accounted for in the model. The distances were modeled by material and were calculated using the supplier location and the location of manufacturing.

### 2.3. Manufacturing

Manufacturing an Entice HP+ door system begins with cutting, fabricating and assembling raw materials to the sizes indicated on a set of fabrication drawings. Trained operators use fabrication drawings, templates and quality standards to glaze and assemble a complete door with hardware. Each door is then packaged securely with protective materials, labeled, and approved by the quality team before shipping to the customer.

### 2.4. Packaging

Entice HP+ is packaged and sent to customers using several materials, primarily a wooden crate. Packaging details are shown in Table 3.

**Table 3: Packaging Details**

MATERIAL	VALUE	UNIT
Polyethylene Film	1.55E+00 (3.42E+00)	kg/m <sup>2</sup> (lb/m <sup>2</sup> )
PE/PP foam	9.72E-01 (2.14E+00)	kg/m <sup>2</sup> (lb/m <sup>2</sup> )
Plywood	4.11E+01 (9.06E+01)	kg/m <sup>2</sup> (lb/m <sup>2</sup> )
PVC Adhesive in product	1.70E+00 (3.75E+00)	kg/m <sup>2</sup> (lb/m <sup>2</sup> )
Styrofoam in product	2.26E-01 (4.98E-01)	kg/m <sup>2</sup> (lb/m <sup>2</sup> )



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## 2. Life Cycle Assessment Background Information

### 3.1. Declared Unit

The declared unit according to the PCR is 1 square meter of door assembly. The reference flow is 88.3 kg (194.7 lb) of product unit without packaging with a frame to glazing ratio of 66% to 34% by mass.

### 3.2. System Boundary

This LCA is a Cradle-to-Gate study. An overview of the system boundary is shown in Figure 2 and a summary of the life cycle stages included in this LCA is presented in Table 3.

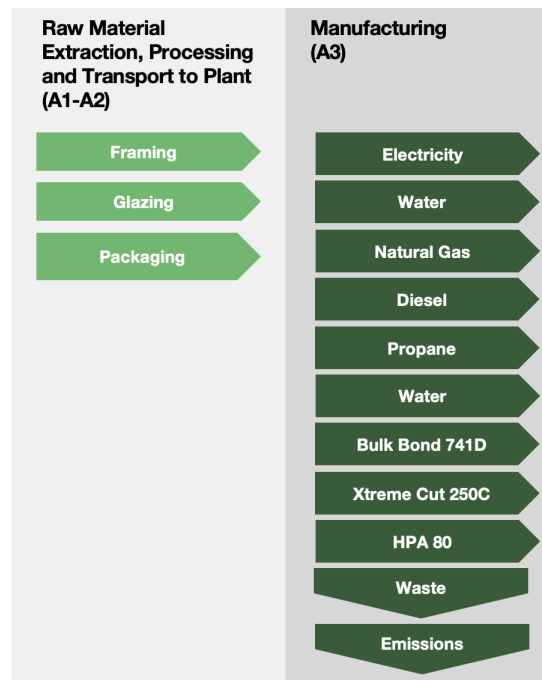


Figure 2: System Boundary Diagram

Table 4: Life Cycle Stages Included in the Study

PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY	
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D



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	Raw material supply	Transport	Manufacturing	Transport from gate to site	Assembly/Install	Use	Maintenance	Repair	Replacement	Refurbishment	Building Operational Energy Use During Product	Building Operational Water Use During Product	Deconstruction	Transport	Waste processing	Disposal	Reuse, Recovery, Recycling Potential
EPD Type	x	x	x	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND

X = Module Included in LCA Report, MND = Module not Declared

### 3.3. Estimates and Assumptions

All estimates and assumptions are within the requirements of ISO 14040/44. The majority of the estimations are within the primary data. The primary data were collected as annual totals including all utility usage and production information. For the LCA, the data were divided by labor hours to create an energy and water use per unit. This was then normalized by area to determine requirements per square meter.

This study follows the modularity and polluter pays principles.

### 3.4. Cut-off Criteria

Material inputs greater than 1% (based on total mass of the final product) were included within the scope of analysis. Material inputs less than 1% were included if sufficient data was available to warrant inclusion and/or the material input was thought to have significant environmental impact. Cumulative excluded material inputs and environmental impacts are less than 5% based on total weight of the declared unit.

The list of excluded inputs include:

- Three components were excluded due to inability to collect mass data. All components were confirmed to be minor components with weights less than 0.45 kg (1lb) (i.e., <0.1% of the product BOM by mass).
- Items like labels, inks, stickers, adhesives, etc. may have been excluded from the product and packaging BOMs due to their small mass compared to the total product and packaging.
- Some material and energy inputs may have been excluded within the MLC datasets used for this project. All MLC datasets have been critically reviewed and conform to the exclusion requirements of the PCR.

### 3.5. Data Sources

Primary data were collected by facility personnel and from utility bills and was used for all manufacturing processes. Whenever available, supplier data were used for raw materials used in the production process. When primary data did not exist, secondary data for raw material production were utilized from the Sphera MLC Database.

### 3.6. Data Quality

Inventory data quality is judged by its precision (measured, calculated or estimated), completeness (e.g., unreported emissions), consistency (degree of uniformity of the methodology applied on a study serving as a data source) and representativeness (geographical, temporal, and technological). To cover these requirements industry data were used





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in combination with consistent background LCA information from the Sphera MLC database. Primary data were used where available, including supplier data for raw materials used in the production process. When primary data did not exist, secondary data for raw material production were obtained from the MLC database.

**3.7. Period under Review**

The period under review was calendar year 2024.

**3.8. Allocation**

General principles of allocation were based on ISO 14040/44. There are no products other than the product under study that are produced as part of the specific manufacturing processes under study. There are, however, other products produced at the manufacturing facility. To derive a per-unit value for manufacturing inputs such as electricity, thermal energy, waste, ancillary materials, and water, allocation based on total labor hours was adopted due to the lack of annual production data. Labor hours were used for allocation of inputs and outputs at CRL’s manufacturing facility because of the availability of product-specific data available on time taken to manufacture Entice HP+. Though the data on manufacturing time includes activities that are directly correlated with energy use and some that aren’t, the data is product-specific and accounts for the differences in manufacturing activities and how energy inputs vary for different CRL products.

As a default, secondary MLC datasets use a physical basis for allocation.

Of relevance to the defined system boundary is the method in which recycled materials were handled. Although there is no known recycled content in this product, background datasets may contain recycled material. Recycled materials in background datasets are accounted for via the cut-off method. Under this method, impacts and benefits associated with the previous life of a raw material from recycled stock are excluded from the system boundary. Additionally, impacts and benefits associated with secondary functions of materials at end of life are also excluded (i.e., production into a third life or energy generation from the incineration plant). Under this methodology, the study would include the impacts associated with reprocessing and preparation of recycled materials that are part of the bill of materials of the products under study.

**3. Life Cycle Assessment Scenarios**

This is a cradle-to-gate study. As such, there are no additional life cycle assessment scenarios to be reported.

**4. Life Cycle Assessment Results**

All results are given per declared unit. Each product under study is reported separately by life cycle stage. Per the PCR, section 7.1.3, results for the framing and glazing must be reported separately.

**Table 5: LCIA Results**

IMPACT	UNIT	A1-A3	FRAMING	GLAZING
<b>IPCC AR6</b>				
GWPe	kg CO2 eq	7.58E+02	5.71E+02	1.18E+02
GWPI	kg CO2 eq	6.84E+02	5.68E+02	1.18E+02
<b>TRACI 2.1</b>				





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AP	kg SO2 eq.	3.07E+00	2.55E+00	3.02E-01
EP	kg N eq.	1.26E-01	7.04E-02	2.04E-02
ODP	kg CFC 11 eq.	5.27E-10	4.21E-10	8.43E-11
SFP	kg O3 eq.	3.54E+01	2.47E+01	6.91E+00
<b>TRACI 2.2</b>				
EPf	kg P eq.	6.52E-04	1.08E-04	4.56E-05
EPm	kg N eq.	9.91E-01	6.82E-01	1.94E-01

**Table 6: Resource Use**

PARAMETER	UNIT	A1-A3	FRAMING	GLAZING
RPRE	MJ	4.68E+03	2.77E+03	1.26E+03
RPRM	MJ	7.82E+02	0.00E+00	6.43E-01
RPRT	MJ	5.47E+03	2.77E+03	1.26E+03
NRPRE	MJ	9.23E+03	6.28E+03	1.79E+03
NRPRM	MJ	8.98E+01	1.16E+00	1.12E+00
NRPRT	MJ	9.32E+03	6.28E+03	1.79E+03
RSF	MJ	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00
RE	MJ	0.00E+00	0.00E+00	0.00E+00
SM	MJ	0.00E+00	0.00E+00	0.00E+00
FW	m3	1.03E+01	8.55E+00	1.22E+00

**Table 7: Output Flows and Waste Categories**

PARAMETER	UNIT	A1-A3	FRAMING	GLAZING
HWD	kg	7.59E-06	5.15E-06	1.89E-06
NHWD	kg	1.65E+02	1.51E+02	4.21E+00
HLRW	kg	2.94E-04	1.31E-04	1.07E-04
ILLRW	kg	2.60E-01	1.23E-01	8.94E-02
CRU	kg	0.00E+00	0.00E+00	0.00E+00
MR	kg	7.66E+00	0.00E+00	-7.57E-01
MER	kg	0.00E+00	0.00E+00	0.00E+00
EEE	MJ	0.00E+00	0.00E+00	0.00E+00
EET	MJ	0.00E+00	0.00E+00	0.00E+00

## 5. LCA Interpretation

Breakdown of key impact categories are shown in representing TRACI 2.1 impact categories and IPCC AR6 for GWP. The framing component drives all impact categories, ranging from 55% - 83% of total A1-A3 impacts, depending on the impact category. Aluminum components within framing drives impact. Following framing is glazing components,



ranging from 10% - 19% of A1-A3 impacts. Here, glass components within the glazing drives impacts.



Figure 3: IPCC AR6 and TRACI 2.1 Summary

(GWP = Global warming potential (IPCC AR6); AP = Acidification potential; EP = Eutrophication potential; ODP = Stratospheric ozone layer depletion potential; FF = Resources, Fossil fuels; SFP = Smog formation potential)

## 6. Additional Environmental Information

Entice HP+ has an HPD. For additional product information refer to the [C.R Laurence Technical Specifications sheet](#).

## 7. References

- CEN. (2019). EN 15804+A2: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products. European Committee for Standardization.
- IPCC. (2021). Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press. In Press.
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