

Product Environmental Profile

Chief Above Tile Suspended Ceiling Kit



COMPANY OVERVIEW

● Sustainability built in to support our associates, customers, and the environment

At Legrand North and Central America, we're committed to leading by example within our own operations, to developing high quality solutions for our customers' High Performance Buildings, and to transforming how people live and work – more safely, more comfortably, more efficiently.

● Better Performance

A core principle of designing for sustainability drives us to innovate products and systems that enable buildings to reach exceptional levels of performance, bringing about industry-leading ideas, inventions and initiatives.

● Better Operations

A commitment to a leadership role in operational excellence through environmental management, optimizing the way we manage energy, water and waste.

● Better Lives

A dedication to enhancing employee and community welfare through programs that help people enjoy healthier, more productive and more rewarding lives.

For more information on Legrand's PEPs and other sustainability initiatives, visit legrand.us/about-us/sustainability.



LEGRAND'S ENVIRONMENTAL COMMITMENTS

● Incorporate environmental management into our industrial sites

Of all Legrand sites worldwide, over 85% are ISO 14001 certified (sites belonging to Legrand for more than five years).

● Offer our customers environmentally friendly solutions

Develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.

● Involve the environment in product design

Reduce the environmental impact of products over their whole life cycle.

Provide our customers with all relevant information (composition, consumption, end of life, etc.).



REFERENCE PRODUCT

Function	Provide an 8" x 2' anchoring area above suspended ceiling tile and provide power connection for AV equipment during a 10-year life time.
Reference Product	<div data-bbox="453 1391 960 1850" data-label="Image"> </div> <p data-bbox="539 1861 879 1888">Column, mount and projector not included.</p> <p data-bbox="453 1899 676 1926">Part Number CMS440P2</p> <p data-bbox="453 1935 1115 1962">SpeedConnect Above-Tile Suspended Ceiling Kit with 2-Gang Filter & Surge</p>

The company reserves the right to change specifications and designs without notice. All illustrations, descriptions, dimensions and weights in the document are for guidance and cannot be held binding on the company.

Product Environmental Profile

Chief Above Tile Suspended Ceiling Kit



PRODUCTS CONCERNED

The environmental data is representative of the following products: CMS440, CMS440N, CMS440P2, CMS445, CMS445N, and CMS445P2



CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market.

Total weight of Reference Product with unit packaging		8,323 g			
Plastics as % of weight		Metals as % of weight		Others as % of weight	
Product					
ABS	0.1%	Steel	85.4%	Power Module	9.3%
		Zinc Alloy	1.2%		
Packaging					
LLDPE	0.5%			Cardboard	2.5%
PET	<0.1%			Paper	0.9%
Total plastics	0.7%	Total metals	86.6%	Total others	12.8%



MANUFACTURING

This Reference Product come from a site that observes the applicable legislation for industrial sites.



DISTRIBUTION

Products are distributed from logistics centers located to optimize transport efficiency using EPA SmartWay® certified carriers to reduce greenhouse gases emissions. Information on the distance of distribution is not available so the PCR hypothesis for “Intracontinental transport”, 2175 miles (3500 km) by heavy truck, was used. This represents transportation of the Reference Product from our warehouse to the local point of distribution in the North American market.

Product Environmental Profile

Chief Above Tile Suspended Ceiling Kit



INSTALLATION

It is assumed four hole-drillings on the ceiling wall is needed. The model is based on driving a 1.5-HP (1.119 kW) power drill for one minute.



USE

Servicing and maintenance:

Under normal conditions of use, this type of product requires no servicing or maintenance.

Consumable:

No consumables are necessary to use this type of product.



END OF LIFE

• **Hazardous waste* contained in the product:** no hazardous waste
 (*) Hazardous waste as defined by European Commission decision 2000/532/EC.

• **Recycling rate:**

Calculated using the disposal pathway described in US EPA's Advancing Sustainable Materials Management: 2018 Facts and Figures Report, the recyclability rate of the Reference Product is estimated as 35.5%. This value is based on data collected from a technological channel using industrial procedures. It does not pre-validate the effective use of this product for end-of-life electrical and electronic products.

Separated into:	(% mass of Reference Product with packaging)
- plastic materials:	<0.1%
- metal materials:	29.5%
- other materials:	3.6%

Recycling rate of packaging	(% mass of Reference Product with packaging)
- all types of materials:	2.4%



ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use, and end of life. It is representative of products marketed and used in North America.

The following modelling elements were taken into account:

Manufacturing	Packaging taken into account. As required by the PEP ecopassport program, all transport for the manufacturing of the Reference Product, including materials and components, has been taken into account. The waste generated during manufacturing phase has been taken into account.
Distribution	Transport between the last distribution center and an average delivery to the sales area. The default scenario modelled maximizes the environmental impact using the PCR hypothesis for "local transport": 2175 miles (3500 km) by heavy truck.
Installation	The end of life of the packaging (0.33 kg) is taken into account at this phase. Transport of packaging to end of life treatment is taken into account at this phase.
Use	<ul style="list-style-type: none"> • Under normal conditions of use, this type of product requires no servicing or maintenance. • No consumables are necessary to use this type of product. • Product category: AV mount + power outlet • Use scenario: 0.5 W power consumption during the 10 year working life. Eight hours per work day and 261 work days per year. • Energy model: Electricity(US) - 2009
End of life	The end of life scenario models the environmental impact using PCR hypothesis for "intracontinental transport": 621 miles [1000 km].
Software used	EIME V5.9.1 and its database "CODDE-2020-12" and the indicators defined in the PCR ed 3 in alignment with the EN15804 standard

Product Environmental Profile

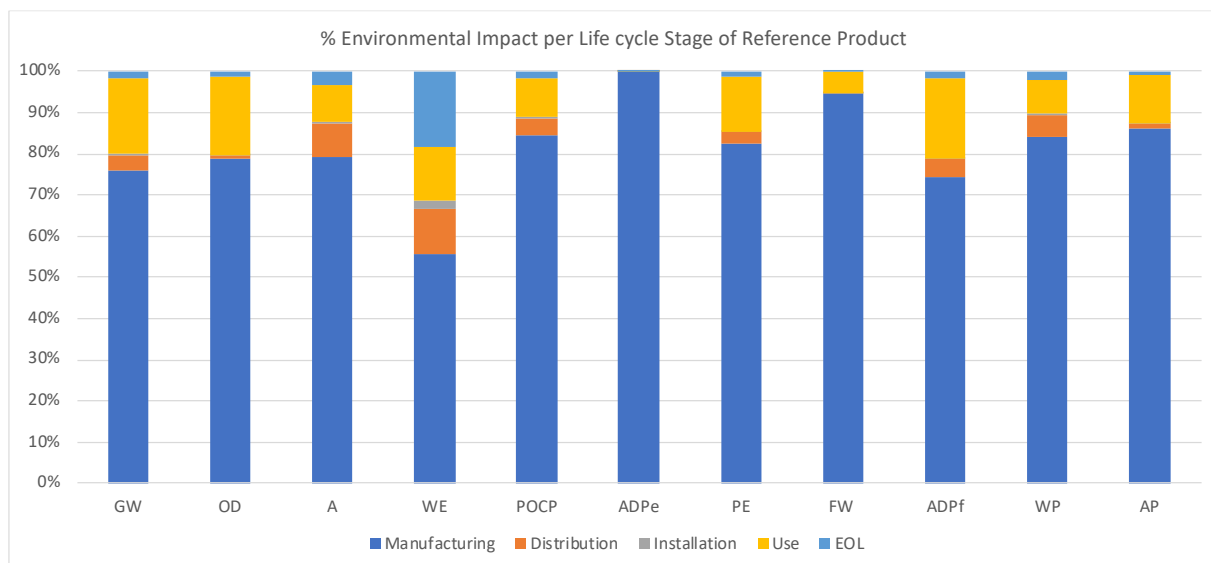
Chief Above Tile Suspended Ceiling Kit



ENVIRONMENTAL IMPACTS (continued)

	Total for Life cycle		Raw material and manufacturing		Distribution		Installation		Use		End of life	
	Value	Unit	Value	%	Value	%	Value	%	Value	%	Value	%
Global warming (GW)	3.91E+01	kg CO ₂ eq.	2.96E+01	76%	1.45E+00	4%	1.62E-01	0%	7.23E+00	19%	6.23E-01	2%
Ozone depletion (OD)	6.79E-07	kg CFC-11 eq.	5.36E-07	79%	2.94E-09	0%	6.73E-10	0%	1.31E-07	19%	7.96E-09	1%
Acidification of soil and water (A)	7.80E-02	kg SO ₂ eq.	6.17E-02	79%	6.51E-03	8%	1.33E-04	0%	6.92E-03	9%	2.74E-03	4%
Water eutrophication (WE)	1.37E-02	kg PO ₄ ³⁻ eq.	7.66E-03	56%	1.50E-03	11%	2.46E-04	2%	1.83E-03	13%	2.50E-03	18%
Photochemical ozone creation (POCP)	1.18E-02	kg C ₂ H ₄ eq.	9.94E-03	85%	4.63E-04	4%	3.46E-05	0%	1.11E-03	9%	2.10E-04	2%
Depletion of abiotic resources - elements (ADPe)	9.83E-03	kg Sb eq.	9.83E-03	100%	5.80E-08	0%	1.25E-09	0%	7.10E-08	0%	2.49E-08	0%
Total use of primary energy (PE)	7.27E+02	MJ	6.01E+02	83%	2.05E+01	3%	5.25E-01	0%	9.73E+01	13%	8.41E+00	1%
Net use of fresh water (FW)	2.38E-01	m ³	2.25E-01	94%	1.30E-04	0%	1.16E-04	0%	1.28E-02	5%	1.90E-04	0%
Depletion of abiotic resources – fossil fuels (ADPf)	4.54E+02	MJ	3.37E+02	74%	2.04E+01	4%	4.93E-01	0%	8.80E+01	19%	8.08E+00	2%
Water pollution (WP)	4.40E+03	m ³	3.70E+03	84%	2.38E+02	5%	1.13E+01	0%	3.56E+02	8%	9.24E+01	2%
Air pollution (AP)	5.10E+03	m ³	4.39E+03	86%	5.94E+01	1%	3.00E+00	0%	6.14E+02	12%	3.81E+01	1%

The values of the 27 impacts defined in the PCR-ed3-EN-2015 04 02 are available in the digital database of pep-ecopassport.org website. The environmental impacts of the Reference Product are representative of the products covered by the PEP, which therefore constitute a homogeneous environmental family.



The environmental impact of the Reference Product occurs predominantly during the raw material and manufacturing phase.

Product Environmental Profile

Chief Above Tile Suspended Ceiling Kit



ENVIRONMENTAL IMPACTS (continued)

For products other than the Reference Product, the environmental impacts were calculated and the impact factors relative to the reference product are presented below. To determine the impacts for the various products in the family, the impacts of the reference product should be multiplied by the corresponding factors for the applicable products in the table below.

Part Number	Manufacturing	Distribution	Installation	Use	End of Life
CMS440	OD: 0.1 A & POCP: 0.6 WE & ADPf: 0.4 ADPe & WP: <0.1 PE: 0.7 All else: 0.5	0.6	OD, FW & AP: 1 All else: 0.9	0	OD: 0.2 FW: 0.3 AP: 0.5 All else: 0.6
CMS440N	GW, WE & ADPf: 0.5 OD: 0.1 ADPe & WP: <0.1 PE: 0.7 All else: 0.6	0.7	1	0	OD: 0.2 A, WE, ADPe & WP: 0.7 FW: 0.4 All else: 0.6
CMS445	GW: 1 OD: 0.2 A: 1.2 POCP & FW: 1.3 ADPe: <0.1 WP: 0.1 AP: 1.1 All else: 0.9	1.3	GW & A: 2.6 OD: 2.1 ADPe: 2.4 PE & ADPf: 2.2 FW & AP: 2 All else: 2.8	0	OD: 0.4 A, ADPe & WP: 1.3 WE: 1.4 FW: 0.7 AP: 1.1 All else: 1.2
CMS445N	GW: 1.1 OD: 0.2 WE & ADPf: 1 ADPe: <0.1 PE: 0.9 FW: 1.4 WP: 0.1 AP: 1.1 All else: 1.3	1.4	OD & FW: 2.1 WE & POCP: 2.9 ADPe: 2.5 PE & ADPf: 2.2 WP: 2.8 AP: 2 All else: 2.6	0	OD: 0.5 WE: 1.4 FW: 0.8 AP: 1.1 All else: 1.3
CMS445P2	OD: 1.1 A & AP: 1.6 POCP: 1.7 ADPe & WP: 1 PE: 1.2 FW: 1.8 All else: 1.5	1.7	GW: 2.7 OD & FW: 2.1 A: 2.6 ADPe: 2.5 PE: 2.2 ADPf: 2.3 AP: 2 All else: 2.9	1	OD: 1.2 WE: 1.7 FW: 1.4 All else: 1.6

Registration number: LGRP-01440-V01.01-EN	Drafting rules: "PCR-ed3-EN-2015 04"
Verifier's accreditation number: VH43	Information and reference documents: www.pep-ecopassport.org
Date of issue: 10-2021	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 <input type="checkbox"/> Internal <input checked="" type="checkbox"/> External	
The PCR Review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN).	
The elements of the present PEP cannot be compared with elements from another program.	
Document in compliance with ISO 14025:2010: "Environmental labels and declarations - Type III environmental declarations"	
In compliance with ISO 14040:2006: "Environmental management - LCA - Principles and framework"	
In compliance with ISO 14044:2006: "Environmental management - LCA - Requirements and guidelines"	
In alignment with EN 15804:2012+A1:2013: "Sustainability of construction works - EPD's - Core rules for the product category of construction products"	