

Product Environmental Profile

Vaddio CeilingMIC Microphone



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/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	Professional audio picking for a lifetime of 10 years.
Reference Product	
	Part Number 999-85100-000
	CeilingMIC Microphone

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.

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PRODUCTS CONCERNED

The environmental data is representative of the following products:

- CeilingMIC Microphone (Black) (999-85150-000)



CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. It respects the restrictions on use of hazardous substances as defined in the RoHS directive 2011/65/EC and does not contain, as far as we know, any substance on the candidate list at the time the PEP was published for authorization of the REACH regulation(EC) no. 1907/2006 with a concentration above 0.1% w/w.

Total weight of Reference Product with unit packaging		1,697 g			
Plastics as % of weight		Metals as % of weight		Others as % of weight	
Product					
Acrylonitrile Butadiene Styrene (ABS)	3.4%	Steel	49.8%	Electronic Circuit Board	3.5%
Silicone	0.4%	Aluminum	21.2%		
Nylon	0.2%	Copper Alloy	2.3%		
Rubber	0.1%				
Acrylic Fabric	<0.1%				
Packaging					
LLDPE	0.1%			Corrugate	18.6%
				Paper	0.6%
Total plastics	4.2%	Total metals	73.3%	Total others	22.5%

For zinc alloy, 25% of the content is derived from recycling. The percentage is 32% for aluminum, 48% for cardboard, 30% for copper alloy and 35% for steel.



MANUFACTURING

The Reference Product comes 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.

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INSTALLATION

No electricity is required for installing the Reference Product.



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 32.3%. 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:	8.7%
- metal materials:	34.1%
Recycling rate of packaging	(% mass of Reference Product with packaging)
- pulp materials:	68.2%
- plastic materials:	8.7%



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 "Intracontinental transport": 2175 miles (3500 km) by heavy truck.
Installation	The end of life of the packaging (326 g) is taken into account at this phase. Transport of packaging to end of life treatment.
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. • Use scenario: 229.68 kWh used over the 10-year reference life. Product used 4 hours in active mode and 4 hours in standby mode per day for 261 days per year. • Energy model: Electricity (US) - 2009
End of life	The default end of life scenario modelled maximizes the environmental impact using the PCR hypothesis for "Local transport": 621 miles (1000 km) by heavy truck and landfilling.
Software used	EIME V5.9.4 and its database "CODDE-2022-02" and the indicators defined in the PCR ed 4 in alignment with the EN15804 standard

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ENVIRONMENTAL IMPACTS (continued)

Environmental Impact Indicators		Total Life Cycle Impacts		Manufacturing	Distribution	Installation	Use	End of Life
				A1-A3	A4	A5	B1-B7	C1-C4
Climate change - total	GWP	1.60E+02	kg CO2 eq.	3.22E+01	4.58E-01	1.04E+00	1.26E+02	9.98E-01
Climate change - fossil fuels	GWPf	1.60E+02	kg CO2 eq.	3.20E+01	4.58E-01	1.00E+00	1.25E+02	9.96E-01
Climate change - biogenic	GWPb	3.37E-01	kg CO2 eq.	1.62E-01	-	3.99E-02	1.33E-01	1.70E-03
Climate change - land use and land use transformation	GWPlu	2.14E-07	kg CO2 eq.	1.30E-07	-	2.11E-09	-	8.61E-08
Ozone depletion	ODP	7.65E-06	kg CFC-11 eq.	6.52E-06	4.05E-07	8.95E-08	5.33E-07	1.01E-07
Acidification	AP	8.71E-01	mol H+ eq.	1.98E-01	2.06E-03	2.96E-03	6.64E-01	3.78E-03
Eutrophication, freshwater	Epf	3.74E-04	kg P eq.	7.56E-05	5.38E-08	5.81E-06	1.93E-04	9.86E-05
Eutrophication, marine aquatic	Epm	1.02E-01	kg N eq.	2.06E-02	9.55E-04	1.06E-03	7.90E-02	7.91E-04
Eutrophication, terrestrial	Ept	1.17E+00	mol N eq.	2.18E-01	1.03E-02	6.17E-03	9.27E-01	8.52E-03
Photochemical ozone formation	POCP	3.43E-01	kg NMVOC eq.	7.34E-02	3.36E-03	1.80E-03	2.62E-01	2.98E-03
Abiotic resource depletion – elements	ADPe	5.55E-03	kg SB eq.	5.54E-03	3.95E-11	2.64E-08	5.07E-06	2.95E-06
Abiotic resource depletion – fossil fuels	ADPf	3.41E+03	MJ	6.69E+02	5.58E+00	7.67E+00	2.66E+03	6.26E+01
Water use	WU	1.59E+01	m3 eq.	1.07E+01	2.33E-02	3.23E-01	4.51E+00	3.64E-01

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website. The environmental impact of the Reference Product is most significant during the Use stage.

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ENVIRONMENTAL IMPACTS (continued)

Inventory Flow Indicators		Total Life Cycle Impacts		Manufacturing	Distribution	Installation	Use	End of Life
				A1-A3	A4	A5	B1-B7	C1-C4
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	ERP	3.55E+02	MJ	2.06E+01	3.74E-05	7.25E-01	3.34E+02	4.48E-02
Use of renewable primary energy resources used as raw materials	ERM	3.26E+00	MJ	3.26E+00	-	-	-	-
Total use of renewable primary energy resources	ER	3.59E+02	MJ	2.38E+01	3.74E-05	7.25E-01	3.34E+02	4.48E-02
Use of non-renewable primary energy, excluding non-renewable primary energy resources used as raw materials	ENRP	3.40E+03	MJ	6.64E+02	5.58E+00	7.67E+00	2.66E+03	6.26E+01
Use of non-renewable primary energy resources used as raw materials	ENRM	5.09E+00	MJ	5.09E+00	-	-	-	-
Total use of non-renewable primary energy resources	ENR	3.41E+03	MJ	6.69E+02	5.58E+00	7.67E+00	2.66E+03	6.26E+01
Use of secondary materials	USM	6.01E-01	kg	6.01E-01	-	-	-	-
Use of renewable secondary fuels	URSF	0.00E+00	MJ	-	-	-	-	-
Use of non-renewable secondary fuels	UNRSF	0.00E+00	MJ	-	-	-	-	-
Net use of fresh water	NUFW	3.71E-01	m ³	2.50E-01	5.43E-04	7.51E-03	1.05E-01	8.47E-03
Hazardous waste disposed	HWD	6.44E+01	kg	6.18E+01	3.81E-04	8.43E-03	2.46E+00	1.22E-01
Non-hazardous waste disposed	NHWD	4.25E+01	kg	2.05E+01	4.68E-04	2.47E+00	1.85E+01	9.19E-01
Radioactive waste disposed	RWD	5.76E-02	kg	5.37E-02	9.14E-05	3.14E-04	3.50E-03	3.57E-05
Components for re-use	CRU	0.00E+00	kg	-	-	-	-	-
Exported Energy	EE	0.00E+00	MJ	-	-	-	-	-
Materials for energy recovery	MER	3.97E-02	kg	-	-	3.97E-02	-	-
Materials for recycling	MRE	8.22E-01	kg	2.80E-03	-	3.91E-01	-	4.28E-01
Biogenic carbon content of the product	BCpdt	0.00E+00	kg C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content of the associated packaging	BCpkg	1.40E-01	kg C	1.40E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00

The values of the indicators defined in the PCR-ed4-EN-2021 09 06 are available in the digital database of pep-ecopassport.org website.

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ENVIRONMENTAL IMPACTS (continued)

For products other than the Reference Product, the environmental impacts for Distribution are proportional to the mass of the reference Product. The impacts for Manufacturing, Installation, Use, and End of Life of the various products in the family should then be multiplied by the corresponding values for the applicable products in the table below.

Part Number	Manufacturing	Distribution	Installation	Use	End of Life
999-85150-000	1	1	1	1	1

Registration number: LGRP-01884-V01.01-EN	Drafting rules: "PCR-ed4-EN-2021 09 06"
Verifier's accreditation number: VH43	Information and reference documents: www.pep-ecopassport.org
Date of issue: 07 - 2024	Validity period: 5 years
Independent verification of the declaration and data, in compliance with ISO 14025:2010 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
The PCR review was conducted by a panel of experts chaired by Julie ORGELET (DDemain)	
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"	