

Product Environmental Profile

LCS³ FIBRE OPTIC BLOCK_LC DUPLEX BLOCK FOR 6-12-24_SINGLE-MULTI MODE FO



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 the Group 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 and provide informations in compliance with ISO 14025**

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	To connect and link a connection point for 10 years with a 25 % use rate for optical telecommunication application in LAN Tertiary.
Reference Product	
	Cat.No 0 321 13
	LCS ³ FIBRE OPTIC BLOCK_LC DUPLEX BLOCK FOR 6-12-24_SINGLE-MULTI MODE FO.

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.



PRODUCTS CONCERNED

The environmental data is representative of the following products:

Catalogue Numbers
• 0 321 13
• 0 321 23
• 0 321 36
• 0 321 14
• 0 321 16
• 0 321 24
• 0 321 37
• 0 321 15
• 0 321 25

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■ 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/EU.

Total weight of Reference Product		18 g (all packaging included)			
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PC	14.4 %	Steel	1.0 %	Ceramic	0.2 %
Other plastic	4.9 %				
PA	1.8 %				
Packaging as % of weight					
PE	< 0.1 %			Wood	40.3 %
				Paper	37.4 %
Total plastics	21.1 %	Total metals	1.0 %	Total others	77.9 %

Estimated recycled material content: 31 % by mass.



■ MANUFACTURE

This Reference Product comes from sites that have received ISO14001 certification.



■ DISTRIBUTION

Products are distributed from logistics centres located with a view to optimize transport efficiency. The Reference Product is therefore transported over an average distance of 780 km by lorry from our warehouse to the local point of distribution into the market in Europe. Packaging is compliant with European directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 97 % (in % of packaging weight).



■ INSTALLATION

For the installation of the product, only standard tools are needed.



■ USE

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

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END OF LIFE

The product end-of-life factors are taken into account during the design phase. Dismantling and sorting of components or materials is made as easy as possible with a view to recycling or failing that, another form of reuse.

• **Extended producer responsibility:**

The sale of this product is subject to a contribution to eco-organisations in each country responsible for managing end-of-life products in the field of application of the European Waste Electronic and Electrical Equipment Directive.

• **Recyclability rate:**

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 92 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not pre-validate the effective use of this channel for the end of life of this product.

Separated into:

- plastic materials (excluding packaging) : 15 %
- metal materials (excluding packaging) : 1 %
- other materials (excluding packaging) : 0 %
- packaging (all types of materials) : 76 %



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 from products marketed and used in Europe, in compliance with the local current standards.

For each phase, the following modelling elements were taken in account:

Manufacture	Materials and components of the product, all transport for the manufacturing, the packaging and the waste generated by the manufacturing.
Distribution	Transport between the last Group distribution centre and an average delivery point in the sales area.
Installation	The end of life of the packaging.
Use	<ul style="list-style-type: none"> • Product category: PSR-0001-ed3-EN-2015 10 16 - 6.2. Optical Telecom accessories. • Use scenario: for a 10 years working life, 0.109 mW losses at 25 % use rate. This modelling duration does not constitute a minimum durability requirement. • Energy model: Electricity Mix; Europe 27 - 2008.
End of life	The default end of life scenario maximizing the impacts.
Software and database used	EIME & database CODDE-2018-11

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SELECTION OF ENVIRONMENTAL IMPACTS

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Global warming	5.41E-02	kgCO₂ eq.	5.09E-02	94 %	7.09E-04	1 %	7.91E-04	1 %	1.17E-03	2 %	4.77E-04	< 1 %
Ozone depletion	3.79E-09	kgCFC-11 eq.	3.69E-09	98 %	1.44E-12	< 1 %	3.67E-12	< 1 %	7.62E-11	2 %	1.20E-11	< 1 %
Acidification of soils and water	1.06E-04	kgSO₂ eq.	9.20E-05	87 %	3.18E-06	3 %	3.73E-06	4 %	4.88E-06	5 %	1.82E-06	2 %
Water eutrophication	1.60E-04	kg(PO₄)³⁻ eq.	1.54E-04	96 %	7.32E-07	< 1 %	2.63E-06	2 %	2.95E-07	< 1 %	2.10E-06	1 %
Photochemical ozone formation	1.09E-05	kgC₂H₄ eq.	9.98E-06	92 %	2.26E-07	2 %	2.64E-07	2 %	2.68E-07	2 %	1.42E-07	1 %
Depletion of abiotic resources - elements	1.31E-07	kgSb eq.	1.31E-07	100 %	2.84E-11	< 1 %	3.32E-11	< 1 %	1.02E-10	< 1 %	3.04E-11	< 1 %
Total use of primary energy	8.08E-01	MJ	7.58E-01	94 %	1.00E-02	1 %	1.10E-02	1 %	2.34E-02	3 %	5.21E-03	< 1 %
Net use of fresh water	6.21E-03	m³	1.97E-03	32 %	6.34E-08	< 1 %	1.66E-07	< 1 %	4.24E-03	68 %	4.12E-07	< 1 %
Depletion of abiotic resources - fossil fuels	5.06E-01	MJ	4.67E-01	92 %	9.96E-03	2 %	1.08E-02	2 %	1.33E-02	3 %	4.67E-03	< 1 %
Water pollution	1.33E+01	m³	1.29E+01	97 %	1.17E-01	< 1 %	1.26E-01	< 1 %	4.83E-02	< 1 %	5.42E-02	< 1 %
Air pollution	3.24E+00	m³	3.03E+00	94 %	2.91E-02	< 1 %	6.88E-02	2 %	5.03E-02	2 %	5.58E-02	2 %

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.

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SELECTION OF ENVIRONMENTAL IMPACTS (CONTINUED)

Extrapolation rule: to know the values of the environmental impacts of the products concerned other than the reference product, multiply the values of environmental indicators by the following corresponding factors.

The reference product: 0 321 13					
LCS ³ FIBRE OPTIC BLOCK - SINGLE-MODE FIBRE OPTIC BLOCK - LC DUPLEX BLOCK FOR 6 SINGLE-MODE FIBRE OPTICS					
Coefficient of extrapolation of environmental indicators					
Coefficient 0 321 14					
	Manufacturing	Distribution	Installation	Use	End of life
Global warming	0.65	0.5	0.5	1	0.7
Ozon depletion					
Acidification of soil and water					
Water eutrophication					
Photochemical ozon creation					
Depletion of abiotic resources - elements	0.65				
Total use of primary energy during the life cycle					
Net use of fresh water					
Depletion of abiotic resources - fossil fuels					
Water pollution					
Air pollution					

The reference product: 0 321 13					
LCS ³ FIBRE OPTIC BLOCK - SINGLE-MODE FIBRE OPTIC BLOCK - LC DUPLEX BLOCK FOR 6 SINGLE-MODE FIBRE OPTICS					
Coefficient of extrapolation of environmental indicators					
Coefficient 0 321 15					
	Manufacturing	Distribution	Installation	Use	End of life
Global warming	0.45	0.3	0.3	1	0.45
Ozon depletion					
Acidification of soil and water					
Water eutrophication					
Photochemical ozon creation					
Depletion of abiotic resources - elements	0.45				
Total use of primary energy during the life cycle					
Net use of fresh water					
Depletion of abiotic resources - fossil fuels					
Water pollution					
Air pollution					

Impacts are calculated for 1 connection point. For the Reference Product's impacts multiply by the number of connection points (=6). For the other products concerned by this PEP, multiply by the coeff and by the number of connection points of the cat number.

Registration number: LGRP-01154-V01.01-EN	Drafting rules: «PEP-PCR-ed3-EN-2015 04 02» Supplemented by «PSR-0001-ed3-2015 10 16»
Verifier accreditation N°: VH02	Information and reference documents: www.pep-ecopassport.org
Date of issue: 01-2020	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 Philippe Osset (SOLINNEN)	
PEP are compliant with XP C08-100-1 : 2016 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»	
Environmental data in alignment with EN 15804: 2012 + A1 : 2013	

