

Product Environmental Profile

Cables for local networks cat. 6a - F/UTP - 4 PAIRS - L. 500M - LSZH SLEEVE - Legrand cabling system LCS²



LEGRAND'S ENVIRONMENTAL COMMITMENTS

- Incorporate environmental management into our industrial sites**

Of all Legrand sites worldwide, over 80% are ISO 14001-certified (sites belonging to the Group for more than five years).

- Involve the environment in product design**

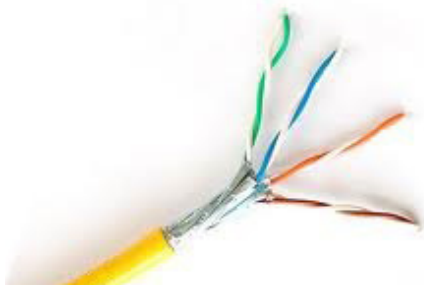
Provide our customers with all relevant information (composition, consumption, end of life, etc.).
Reduce the environmental impact of products over their whole life cycle.

- Offer our customers environmentally friendly solutions**

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



REFERENCE PRODUCT

Function	Transmit a communication signal on 1 m according to Ethernet 1G protocol, 6 category, during 10 years and a 25 % use rate in accordance with the standards in force.
Reference Product	
	Cat.No 0 327 78
	LAN CABLE - CAT. 6a - F/UTP - 4 PAIRS - L. 500M - LSZH SLEEVE.

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 are representative of the following products:

Catalogue Numbers
• 0 327 78

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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.

Total weight of Reference Product	55 g (with unit packaging)				
Plastics as % of weight		Metals as % of weight		Other as % of weight	
PP	21,1 %	Copper alloys	35,9 %		
PE	25,7 %	Al	4,4 %		
PET	3,7 %				
				Packaging as % of weight	
				Plywood	5,9 %
				Steel	1 %
				Paper	2,3 %
Total plastics	50,4 %	Total metals	40,3 %	Total other and packaging	9,2 %

Estimated recycled material content: 10 % of weight.



■ MANUFACTURE

The Reference Product comes from sites that, in their majority, 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 1406 km by road and 9 km by sea from our warehouse to the local point of distribution into the market in all around the world.

Packaging is compliant with applicable regulation. At their end of life the recyclability rate is 36 % (in % of packaging weight).



■ INSTALLATION

Installation components not delivered with the product are not taken into account.



■ 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.

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END OF LIFE

Product end of life management is integrated into product design by the development teams. The disassembly and sorting of components or materials is made as easy as possible with a view to recycling or another form of reuse.

• Recyclability rate:

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 27 %. This value is based on data collected from a technological channel operating on an industrial basis. It does not prejudge the effective use of the channel for electrical and electronic products at the end of their life.

Separated into:

- cable : 24 %
- packaging (all types of materials) : 3 %



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 worldwide marketed products.

The following modelling elements were taken into account:

Manufacture	Unit packaging taken into account. As required by the "PEP ecopassport" programme all transport for the manufacturing of the Reference Product, including materials and components, has been taken in account.
Distribution	Transport between the last Group distribution centre and an average delivery to the sales area.
Installation	Installation components not delivered with the product are not taken into account.
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: wires, cables and accessories: twisted pairs cables. • Use scenario: non-continuous operation for 10 years of working life, during 25 % of the time (for LAN tertiary applications), 1.364 mW of energy losses (determined by standard for 10G Ethernet Cat6a). This modelling duration does not constitute a minimum durability requirement. • Energy model: World - 2009
End of life	<p>In view of the data available on the date of creation of the document, and in accordance with the requirements of the PCR of the «PEP ecopassport» programme, and the PSR-0001-ed1-EN, these end of life phases are taken into account:</p> <ul style="list-style-type: none"> - transport of the Reference Product by road only once, over a distance of 1000 km, to a processing site at end of life - a stage of grinding / separation of metals and plastics - recycling of 100 % of metals and landfilling of other materials.
Software used	EIME V5 and its database «Legrand-2012-10-31 version 3» made from the database «CODDE-2012-07»

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ENVIRONMENTAL IMPACTS (continued)

		Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Mandatory indicators	Global warming	2,39E+02	g~CO ₂ eq.	1,50E+02	63 %	8,57E+00	4 %	0,00E+00	0 %	3,05E+01	13 %	4,98E+01	21 %
	Ozone depletion	3,31E-05	g~CFC-11 eq.	2,08E-05	63 %	6,06E-06	18 %	0,00E+00	0 %	2,42E-07	< 1 %	6,01E-06	18 %
	Water eutrophication	1,64E-02	g~PO ₄ ³⁻ eq.	1,11E-02	68 %	1,42E-04	< 1 %	0,00E+00	0 %	6,09E-05	< 1 %	5,13E-03	31 %
	Photochemical ozone creation	1,17E-01	g~C ₂ H ₄ eq.	9,58E-02	82 %	7,43E-03	6 %	0,00E+00	0 %	3,89E-03	3 %	9,56E-03	8 %
	Air acidification	9,75E-02	g~H ⁺ eq.	8,73E-02	90 %	1,09E-03	1 %	0,00E+00	0 %	6,45E-03	7 %	2,60E-03	3 %
	Total energy depletion	4,57E+00	MJ	3,83E+00	84 %	1,08E-01	2 %	0,00E+00	0 %	3,68E-01	8 %	2,59E-01	6 %
	Water depletion	3,85E+00	dm ³	3,76E+00	98 %	1,03E-02	< 1 %	0,00E+00	0 %	3,39E-02	< 1 %	4,95E-02	1 %

Optional indicators	Raw material depletion	5,84E-16	year ⁻¹	5,84E-16	100 %	1,48E-19	< 1 %	0,00E+00	0 %	7,78E-20	< 1 %	6,19E-19	< 1 %
	Air toxicity	2,48E+05	m ³	2,35E+05	95 %	1,62E+03	< 1 %	0,00E+00	0 %	7,56E+03	3 %	3,52E+03	1 %
	Water toxicity	7,63E-01	m ³	5,61E-02	7 %	1,19E-03	< 1 %	0,00E+00	0 %	1,01E-03	< 1 %	7,05E-01	92 %
	Hazardous waste production	1,55E-02	kg	1,46E-02	94 %	3,19E-06	< 1 %	0,00E+00	0 %	8,24E-04	5 %	1,13E-04	< 1 %

The environmental impacts of the Reference Product are representative of the products covered by the PEP.

The values of these impacts are valid for the context specified in this document. They must not be used directly to draw up the environmental balance sheet for the installation.

Concerning communication and data wires and cables, due to the wide range of possible installation of these products, the installation phase is excluded from the PEP perimeter. The impact determination of the installation will be performed by the PEP users according to the product use context.

Registration number: LGRP-2013-220-V1-EN	Drafting rule: PCR : PEP-PCR-ed 2.1-FR-2012 12 11 supplemented by PSR : PSR-0001-ed1-EN-2012-01-10
Authorisation number of checker: VH02	Programme information: www.pep-ecopassport.org
Date of issue: 12-2013	Validity period: 4 years
Independent verification of the declaration and data, in accordance with ISO 14025:2006 Internal <input checked="" type="checkbox"/> External <input type="checkbox"/>	
In accordance with ISO 14025:2006 Type III environmental declaration	
The critical review of the PCR was conducted by a panel of experts chaired by J.Chevalier (CSTB)	
The elements of the present PEP cannot be compared with elements from another programme	

