

Product Environmental Profile: *Halogen Free Cable conduits and cable trunking for electrical and telecommunications circuits*

JSL ENVIRONMENTAL COMMITMENTS

We incorporate environmental management into our industrial site. ISO 14001 certified by APCER, we offer our customers environmentally friendly solutions and we develop innovative solutions to help our customers design more energy efficient, better managed and more environmentally friendly installations.

We involve the environment and environment concerns in product design incorporating the *IEC Guidelines* :
IEC GUIDE 109 - Environmental aspects - Inclusion in electro technical product standards
IEC GUIDE 114 - Environmentally conscious design – Integrating environmental aspects into design and development of electro technical products
in our Design and Development Department program

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: Non halogen and low smoke Conduits for cables for electrical and telecommunication circuits according *NFC 68 104 - EN 60529 - EN 50085-1:2005 - EN 50102; EN 60754-1:2014, EN 60754-2:2014 and EN 60754-2 :2014/ A1 :2020 ; IEC 61034-1:2005; IEC 61034-2:2005; EN 61034-1: 2005 and EN 61034-2; EN 45545-2:2013+A1*

The environmental data is representative of the following product References :
20x20 LH; 20x12.5 LH; 25x17 LH; 40x17 LH; ; 40x40 LH and 60x40 LH

CONSTITUENT MATERIALS

This Reference Product s 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 and in compliance with the Commission delegated Directive 2015/863/EU of the European Parliament and of the Council of 31 March 2015 as regards the list of restricted substances in electrical and electronic equipment (also known as ‘RoHS Recast’).

Plastics as	% of weigh	Metals as	% of weigh	Others as	% of weigh
Halogen Free Flame retardant Blend	90%	-		CaCO3 Gypsum	4.5%
		-		Kraft Carton paper	4%
		-		UV protector Additive	1.5%
		-			

NOTICE: The values pointed above, they are average values taking in account all the ranges of references listed.

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MANUFACTURE

This References Products come from a manufacturing unit that have received ISO 14001 and ISO 9001 certification. We, as the manufacturer, confirm that we have put in place procedures to ensure that all the manufactured products remain compliant with the applicable Standards and Environmental requirements. As the manufacturer we will also undertake to maintain a register of any non-compliant EEE and product recalls.

DISTRIBUTION

Products are distributed from our Warehouse or from Logistics Centers with a view to optimize transport efficiency. These Products are therefore transported by road from our warehouse to the local point of distribution or directly to the Customer into the market in Europe; average of 1800Km. Packaging is compliant with European Directive 2004/12/EU concerning packaging and packaging waste. At their end of life, its recyclability rate is 98 % (in % of the mass of the packaging).

INSTALLATION

For the installation of the products, only common installer standard tools are needed.

USE

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

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.

• **Recyclability rate:**

Calculated using the method described in technical report IEC/TR 62635, the recyclability rate of the product is estimated at 83%.

This value is based on data collected from a technological channel using industrial procedures. It does not pre-validate the effective use of this channel for end-of-life electrical and electronic products. Separated into:

- plastic materials (excluding packaging) : 68 %
- metal materials (excluding packaging) : 0 %
- other materials (excluding packaging) : 0 %
- packaging (all types of materials) : 19 %

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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 modeling 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 phase have been taken in account.
Distribution	Transport between the JSL Plant and an average delivery point in the sales area of Europe.

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Use	Product category: passive product Under normal conditions of use, this type of product requires no servicing or maintenance. <ul style="list-style-type: none"> No consumables are necessary to use this type of product. Use scenario: no energy consumption during the 20 years working life. This modeling 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 environmental impacts.

	Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
	Value	Unit	Value	%	Value	%	Value	%	Value	%	Value	%
Global warming	1,42E+00	kgCO ₂ eq.	1,36E+00	96 %	9,65E-03	< 1 %	4,90E-03	< 1 %	0,00E+00	0 %	4,41E-02	3 %
Ozone depletion	3,13E-07	kgCFC-11 eq.	3,12E-07	100 %	1,96E-11	< 1 %	5,25E-11	< 1 %	0,00E+00	0 %	1,13E-09	< 1 %
Acidification of soils and water	2,45E-03	kgSO ₂ eq.	2,21E-03	90 %	4,34E-05	2 %	2,20E-05	< 1 %	0,00E+00	0 %	1,68E-04	7 %
Water eutrophication	7,65E-04	kg(PO ₄) ³⁻ eq.	5,45E-04	71 %	9,97E-06	1 %	1,87E-05	2 %	0,00E+00	0 %	1,91E-04	25 %
Photochemical ozone formation	3,06E-04	kgC ₂ H ₄ eq.	2,88E-04	94 %	3,08E-06	1 %	1,59E-06	< 1 %	0,00E+00	0 %	1,31E-05	4 %
Depletion of abiotic resources-elements	1,69E-06	kgSb eq.	1,69E-06	100 %	3,86E-10	< 1 %	2,37E-10	< 1 %	0,00E+00	0 %	2,84E-09	< 1 %
Total use of primary energy	1,78E+01	MJ	1,71E+01	96 %	1,37E-01	< 1 %	6,40E-02	< 1 %	0,00E+00	0 %	4,81E-01	3 %
Net use of fresh water	1,28E-01	m ³	1,28E-01	100 %	8,64E-07	< 1 %	2,00E-06	< 1 %	0,00E+00	0 %	3,88E-05	< 1 %
Depletion of abiotic resources - fossil fuels	9,40E+00	MJ	8,78E+00	93 %	1,36E-01	1 %	6,14E-02	< 1 %	0,00E+00	0 %	4,29E-01	5 %
Water pollution	2,96E+02	m ³	2,88E+02	98 %	1,59E+00	< 1 %	7,14E-01	< 1 %	0,00E+00	0 %	4,98E+00	2 %
Air pollution	2,50E+02	m ³	2,44E+02	98 %	3,96E-01	< 1 %	4,91E-01	< 1 %	0,00E+00	0 %	5,23E+00	2 %

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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

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