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Your usual Sales office
www.legrand.fr

Product Environmental Profile

Kaptika

Double Switches 10 AX

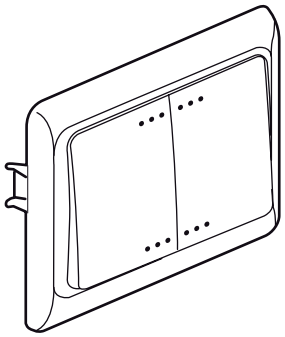
LEGRAND'S ENVIRONMENTAL COMMITMENTS

• 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	Double switches 10 AX: passive product which affords the making and breaking, in air, of a circuit low voltage BT 250 V, carrying a load current not exceeding 10 A, according to the standards NFC -15100 et CEI - 60669-1, for household or similar purposes, during 20 years.
Reference Product	
	Cat. No. 7 821 02
	Double switches 10 AX

PRODUCTS CONCERNED

The environmental data for the Reference Product represent the following Catalogue Numbers:

Mechanism Catalogue Numbers
• 7 821 00 • 7 821 02 • 7 821 04 • 7 821 05 • 7 821 07

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PEP ecopassport®

CONSTITUENT MATERIALS

This Reference Product contains no substances prohibited by the regulations applicable at the time of its introduction to the market. At the date of publication of this document, this Reference Product does not contain RoHS substances (2002/95/EC and its revision 2011/65/EU), and no substances appearing on the list of substances that are candidate for authorization of the European Reach regulation (REACH - article 33.1).

Total weight of Reference Product	**54 g unit packaging included**

Plastics as % of weight		**Metals as % of weight**		**Other as % of weight**	
Polypropylene (PP)	**54.7%**	Steel and Iron (Fe)	**21.5%**		
Polyamide (PA 66)	**0.3%**	Copper (Cu)	**2.5%**		
Polytetrafluoroethylene (PTFE)	**0.1%**	Zinc (Zn)	**1.5%**		
		Silver (Ag)	**0.2%**		
				Other (miscellaneous)	**0.1%**
				Packaging as % of weight	
				Polypropylene (PP)	**3.7%**
				Cardboard	**15.3%**
Plastics (miscellaneous)	**0.0%**	Metals (miscellaneous)	**0.0%**	Ink (unspecified)	**0.1%**
Total plastics	**55.1%**	**Total metals**	**25.7%**	**Total other and packaging**	**19.2%**

Estimated recycled material content: 16% by mass

MANUFACTURE

The Reference Product comes from sites that has received ISO 14001 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 700 km by road from our warehouse to the local point of distribution into the market in Algeria, Maroco and North Africa.

Packaging is compliant with applicable regulation. At the packaging end of life, its theoretical recycling potential is of 99% and its energy recovery potential is of 100% (in % of the mass of the packaging).

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 the Reference Product.

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END OF LIFE

• **Non-hazardous waste:** 43 g

• **Hazardous waste:**
No hazardous waste comes from this Reference Product.

• **Theoretical recycling potential:**
The theoretical recycling potential of a product is the percentage of material that can be recycled using existing techniques. It takes no account of the existence or lack of recycling services, which are highly dependent on the local situation.

This Reference Product contains 100% by weight of potentially recyclable material (excluding packaging):
- Plastic materials : 68%
- Metal materials : 32%

• **Energy recovery potential:**
Energy recovery consists in using the calories contained in waste by burning it and recovering the energy produced, for example: to heat buildings or to produce electricity. The process uses the converting energy contained in the waste, 68% of the product mass can be recycled with energy recovery.

ENVIRONMENTAL IMPACTS

The evaluation of environmental impacts examines the stages of the Reference Product life cycle: manufacturing, distribution, installation, use and end of life. They are representative from products marketed and used in North Africa.
The following modelling elements were taken in account:

Manufacture	Unit packaging 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	• Maintenance: under normal conditions of use, this type of Reference Product requires no servicing or maintenance. • No consumables are necessary to use the Reference Product. • Product category: passive product. • Use scenario: non-continuous operation for 20 years at 30% of rated load, for 30% of the time. This modeling duration does not constitute a minimum durability requirement. • Energy model: Modeling of Algerian and Maroco electricity (Wikipédia: Maroco Energy Data), by using the avalaible closed to EIME model: Mexican electricity model (30% oil, 40% natural gas, 10% coal and 20% others, 2004) .
End of life	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' program, transport of the Reference Product by road only once, over a distance of 1000 km, to a processing site at end of life was counted.
Software used	EIME version 4.1 and its database. version 11.3

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ENVIRONMENTAL IMPACTS continued

		Total for Life cycle		Raw material and manufacture		Distribution		Installation		Use		End of life	
Mandatory indicators	Contribution to greenhouse effect	**5.91E+03**	**G~CO_2**	2.86E+02	**5%**	5.12E+00	**< 1%**	0.00E+00	**0%**	5.62E+03	**95%**	6.34E+00	**< 1%**
	Damage to the ozone layer	**1.81E-03**	**g~CFC-11**	7.57E-05	**4%**	3.62E-06	**< 1%**	0.00E+00	**0%**	1.72E-03	**95%**	4.48E-06	**< 1%**
	Eutrophisation of water	**5.93E-02**	**g~PO_4^{3-}**	2.82E-02	**48%**	8.51E-05	**< 1%**	0.00E+00	**0%**	3.09E-02	**52%**	1.05E-04	**< 1%**
	Photochemical ozone formation	**3.18E+00**	**g~C_2H_4**	2.08E-01	**7%**	4.37E-03	**< 1%**	0.00E+00	**0%**	2.96E+00	**93%**	5.42E-03	**< 1%**
	Acidification of the air	**1.42E+00**	**g~H+**	4.68E-02	**3%**	6.52E-04	**< 1%**	0.00E+00	**0%**	1.37E+00	**97%**	8.08E-04	**< 1%**
	Total energy consumed	**9.43E+01**	**MJ**	6.09E+00	**6%**	6.46E-02	**< 1%**	0.00E+00	**0%**	8.81E+01	**93%**	8.00E-02	**< 1%**
	Consumption of water	**7.00E+00**	**dm^3**	1.98E+00	**28%**	6.14E-03	**< 1%**	0.00E+00	**0%**	5.01E+00	**71%**	7.60E-03	**< 1%**
Optional indicators	Depletion of natural resources	**8.76E-15**	**y^{-1}**	8.57E-15	**98%**	8.81E-20	**< 1%**	0.00E+00	**0%**	1.96E-16	**2%**	1.09E-19	**< 1%**
	Toxicity of the air	**1.72E+06**	**m^3**	6.70E+04	**4%**	9.64E+02	**< 1%**	0.00E+00	**0%**	1.65E+06	**96%**	1.19E+03	**< 1%**
	Toxicity of the water	**8.96E+02**	**dm^3**	1.02E+02	**11%**	6.40E-01	**< 1%**	0.00E+00	**0%**	7.93E+02	**88%**	7.93E-01	**< 1%**
	Production of hazardous waste	**2.79E-02**	**kg**	2.47E-03	**9%**	1.90E-06	**< 1%**	0.00E+00	**0%**	2.54E-02	**91%**	2.36E-06	**< 1%**

The environmental impacts of the Reference Product are representative of the products covered by the PEP which therefore constitutes an homogeneous environmental family.

7 821 00 - 7 821 05 - 7 821 07: related to the Reference Product, the Raw Material Depletion indicator has to be multiplied by 0.5 (% excepted)
7 821 04: related to the Reference Product, the Raw Material Depletion indicator has to be multiplied by 0.7 (% excepted).
For all others indicators take the same values as the Reference Product.

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.

Registration number: LGRP-2012-083-V1-en	Drafting rule: PEP–PCR–ed2-FR-2011 12 09
Authorisation number of checker: VH02	Programme information: **www.pep-ecopassport.org**
Date of issue: 07-2012	Validity period: 4 years
Independent verification of the declaration and data, in accordance with ISO 14025: 2006 Internal: ☒ External:	
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	