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> Product Environmental Profile
Schuko 2P+E socket - screw terminals
Céliane Programme

PEP conforme au Programme "PEP ecopassport" selon les règles PEP-AP001 (Informations sur le site internet du programme : www.pep-ecopassport.org). Les règles d'analyse du cycle de vie sont disponibles sur demandes auprès de l'entreprise.

Legrand's environmental commitments

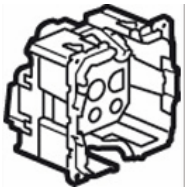
> Incorporate environmental management into our industrial units
At present, 84% of units worldwide and 96% of our European units are ISO 14001 certified.

> Take the environment into account 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 installations that consume less energy, are better managed and more environmentally friendly.

Product description

> Reference products for this environmental profile
The values given are based on the following items.

Function	Schuko 2P+E socket - screw terminals - Céliane programme			
Reference products				
	Cat. No. 671 61	Cat. No. 802 51	Cat. No. 681 31	Cat. No. 686 31
	2P+E socket	Screw-type support frame - 1-gang 2 modules	Cover plate	1-gang plate

> Products covered by this product environmental profile
The environmental impacts of the reference products are representative of the products covered by this PEP, which therefore constitute a homogeneous environmental family.

Cat. Nos	671 61	802 51/61/69	681 31 684 31	686 31/41 687 31/41/51

Constituent materials

These products contain no substances forbidden by regulations applicable at the time of their market launch, excluding maintenance operations carried out during normal use.

Total weight of reference products: 92 g (unit packaging included)

Plastics as % of weight		Metals as % of weight		**Other** as % of weight	
Polycarbonate (PC)	20.00%	Steel	24.80%	Titanium dioxide	1.90%
Acrylonitrile-Butadiene-Styrene (ABS)	14.85%	Copper (Cu)	5.85%	Glass fibre	0.35%
Polyamide (PA66)	6.20%	Zinc (Zn)	3.35%		
Polyethylene terephthalate (PET)	2.30%			Misc. other	0.15%
Polyamide (PA 6)	0.60%			**Packaging** as % of weight	
Polytetrafluoroethylene (PTFE)	0.20%			Cardboard and paper	18.29%
				Polypropylene (PP)	1.01%
				Glue and ink	0.05%
		Misc. metals	0.10%		
Total plastics	**44.15%**	**Total metals**	**34.10%**	**Total other and packaging**	**21.75%**

Estimated recycled material content: 28% by weight

Manufacture

These products are manufactured by a Legrand Group production unit which has received ISO 14001 environmental certification for design and manufacturing.

Distribution

Typical transport conditions

- On average this product covers 376 km by road transport from our production site to the distributor nearest to our customer.

Packaging

- The 18 g of packaging contains: 94.40% cardboard and paper, 5.30% polypropylene (PP), the remainder being glue and ink
- Recycling potential: 100% by weight of packaging
- Energy recovery potential: 100% by weight of packaging

The packaging has been designed in accordance with the current applicable regulations:

- Directive 94/62/EC concerning packaging and packaging waste
- Decree 98-638 transposing the Directive into French law

Legrand undertakes to:

- Reduce its packaging at source as much as possible in terms of weight and volume, in accordance with its customers' needs.
- Produce packaging with a heavy metal content of <100 ppm and without deliberately introducing N-class environmentally hazardous substances.
- Design and use packaging that is convertible and where possible reusable.

Use

Typical conditions of use
This product dissipates 74 mW of power at a current of 8 A and 250 V, giving a total energy consumption of 80 Wh for 54 hours of use per year over a period of 20 years.

Consumable
No consumables are necessary to use the products.

Servicing and maintenance
This type of product requires no servicing or maintenance under normal conditions of use.

End of life

Legrand is involved in the provision of collection and treatment systems to facilitate the disposal of Waste Electronic and Electrical Equipment (WEEE). When designing equipment, our teams now take its end of life into account (marking, easy separation of parts, elimination of hazardous substances, etc.).

Product management

> Hazardous waste contained in the product:
This product contains no hazardous waste.

> Non-hazardous waste contained in the product:
This product contains 74 g of non-hazardous waste (plastics, metals, other).

Recycling potential:
The 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 systems, which are highly dependent on the local situation.
This product contains 97% by weight of recyclable material (excluding packaging):

- Plastic materials : 55%
- Metal materials : 42%

Energy recovery potential:
Energy recovery consists of 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 convertible energy contained in the waste.
This product contains 55% by weight of materials that can be recovered for energy production (excluding packaging).

Environmental impacts

Methodology

The environmental impacts of the reference product are representative of the products covered by this PEP, which therefore constitute a homogeneous environmental family.
The assessment of the environmental impacts of the reference product covers the following stages of the life cycle: raw materials, manufacture, distribution and use.
The modelling assumptions for use are:

- Lifetime: 20 years
- This product dissipates 74 mW of power at a current of 8 A and 250 V, giving a total energy consumption of 80 Wh for 54 hours of use per year over a period of 20 years.

Indicators (see glossary)	Overall M+D+U	Unit	Manufacture M	Distribution D	Use U
Depletion of natural resources	4.474E-16	Y-1	99%	< 1%	< 1%
Total energy consumed	10.576	MJ	83%	8%	9%
Consumption of water	4.681	dm^3	80%	17%	3%
Contribution to the greenhouse effect	564.540	g~CO_2	89%	3%	8%
Contribution to the depletion of the ozone layer	2.664E-04	g~CFC-11	96%	3%	< 1%
Contribution to the creation of photochemical ozone	0.232	g~C_2H_4	86%	7%	7%
Potential for acidification of the air	0.112	g~H^+	90%	5%	5%
Production of hazardous waste	4.999E-03	kg	84%	< 1%	15%

Modelling performed with EIME software, version 6.0, and its version 10.2 database taken from the original version 10 database.
Modelling of electricity consumption during use: "Europe" module

(*) Period of use identified for the assessment of the environment impacts.
This period of use is different from the life expectancy of the product and does not constitute a minimum durability requirement. It is the quantified expression of a unit of service rendered.

The environmental impacts of products other than the reference product are generally in proportion to the product weight.

Glossary

Consumption of water	Indicates the total water consumption for the whole life cycle of the product.
Contribution to the creation of photochemical ozone	Indicates (as g~C_2H_4) the gas emissions having an effect on the creation of photochemical ozone in the lower atmosphere (smog) under the effect of solar radiation.
Contribution to the depletion of the ozone layer	Indicates what is released by all the life cycle phases of the product as CFC-11 gram-equivalents.
Contribution to the greenhouse effect	Indicates what is released by all the life cycle phases of the product as CO_2 gram-equivalents. Example of the equivalence principle: 1 g of CO_2 = 1 g~CO_2; 1 g of CH_4 (methane) is equivalent to the effect of 64 g of CO_2, etc.
Convertible	Said of a product or packaging capable of being reused or recycled, or from which it is possible to recover energy by incineration.
Depletion of natural resources	Indicates the depletion of natural resources, by considering the worldwide amount of reserves (mineral, fossil, etc.) for these resources and the current level of consumption. Expressed as a fraction of the reserves that disappear each year.
Eco-solution	Products or services enabling the reduction of a building's environmental impacts.
EIME	Environmental Information and Management Explorer - Product environmental impact modelling software based on the life cycle assessment methodology.
Energy recovery potential	% by weight of the product or packaging from which energy can be recovered. Energy recovery consists of 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 convertible energy contained in the waste.
Hazardous waste	This is specific waste having a certain level of toxicity and requiring special treatment. Its definition is codified by the European community (Annex to Decision 2000/532/EC amended by Decisions 2001/118/EC and 2001/119/EC)
LCA	Compilation and assessment of inputs and outputs, as well as the potential environmental impacts of a product or a system during its life cycle, "from the cradle to the grave". The approach is described by standard ISO 14040 and its related standards.
Life cycle approach	Methodology taking all the life stages of a product into account (manufacture, installation, use and end of life) in order to determine the consequences for the environment.
Non-hazardous waste	This is made up of non-toxic waste and is of a similar nature to household waste. Its definition is codified by the European community (Annex to Decision 2000/532/EC amended by Decisions 2001/118/EC and 2001/119/EC)
Potential for acidification of the air	Indicates the potential for acidification of the air caused by the release of certain gases into the atmosphere. Expressed as H^+ ion gram-equivalent.
Production of hazardous waste	Indicates the weight of ultimate hazardous waste produced for the whole life cycle of the product.
Recycling potential	% by weight of the product or packaging capable of being put back into a system manufacturing the same product or another product.
Reference product(s)	Product (or product grouping) modelled in the LCA that is produced.
Reusable	Said of a product or packaging capable of being used for the same function, provided the product's proper functionality is verified by the person carrying out the operation.
Total energy consumed	Indicates the total energy consumption (in megajoules) for the whole life cycle of the product.
WEEE (Waste Electrical and Electronic Equipment)	For products covered by the European Directive on Waste Electrical and Electronic Equipment (2002/96/EC), part of the product having to be treated selectively in compliance with Annex II of the Directive.