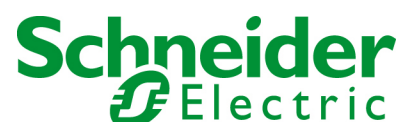
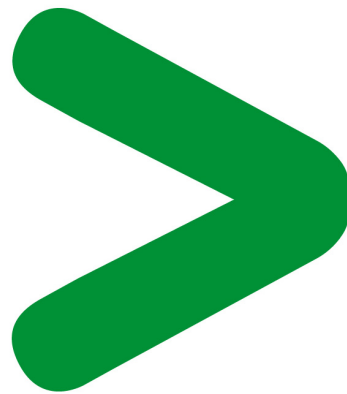


Emergency lighting

BLOC A TRANCHE LED BI-FONCTION

Product Environnemental Profil



Product Environnemental Profil – PEP

Product overview

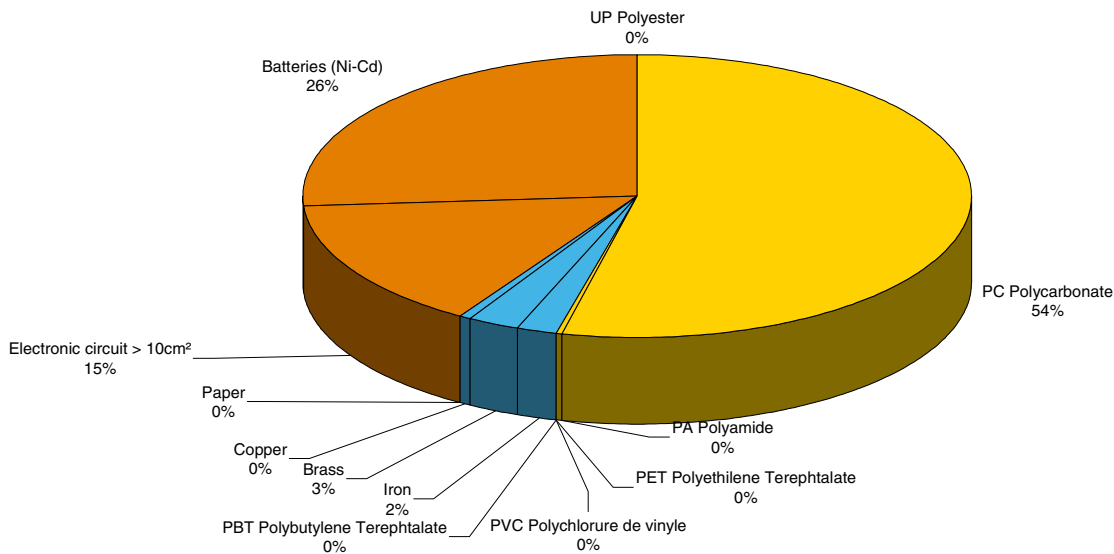
The BLOC A TRANCHE LED Bi-fonction product is dedicated to emergency lighting sleeping areas applications in compliance with French standards

The product reference is BLOC A TRANCHE LED Bi-fonction ref:OVA58932.

The environmental analysis was performed in conformity with ISO14040.
This analysis takes the stages of the life cycle of the product into account.

Constituent materials

The mass of the product is 696g no including packaging. The constituent materials are distributed as follows:



Substance assessment

This product is designed in conformity with the requirements of the ROHS directive (European Directive 2002/95/EC of 27 January 2003) and do not contain, or in the authorised proportions, lead, mercury, cadmium, chromium hexavalent, flame retardant (polybromobiphenyles PBB, polybromodiphenylthethers PBDE) as mentionned in the Directive.

Manufacturing

The BLOC A TRANCHE LED Bi-fonction is manufactured at a Schneider Electric production site on which an ISO14001 certified environmental management system has been established.

Distribution

The weight and volume of the packaging have been reduced, in compliance with the European Union's packaging directive.

The BLOC A TRANCHE LED Bi-fonction packaging weight is 80,4g.
It consists of Paper (Recycled, Without Deinking) 10g, Paper (Recycled, With Deinking) 0,4g, Cardboard (kraft) 70g.

The product distribution flows have been optimised by setting up local distribution centres close to the market areas.

Use

The BLOC A TRANCHE LED Bi-fonction do not generate environmental pollution requiring special precautionary measures (noise, emissions, and so on) in using phase.

The dissipated power depends on the conditions under which the product is implemented and used.
The electrical power consumed by the BLOC A TRANCHE LED Bi-fonction ref OVA58932 spreads out between 1,44 W and 3 W (standby mode 98% uptime 1,44W / active mode 2% uptime 3 W).

For maintenance:
During the product's lifetime, it should be necessary to replace the Batteries (Ni-Cd).

End of life

At end of life, the products BLOC A TRANCHE LED Bi-fonction ref:OVA58932 have been optimized to decrease the amount of waste and valorise the components and materials of the product in the usual end of life treatment process.

The design and information have been achieved so as components are able to enter the usual end of life treatment processes as appropriate: depollution if recommended, reuse and/or dismantling if recommended so as to increase the recycling performances and shredding for separating the rest of materials.

The potential of recyclability of the products has been evaluated using the Codde" recyclability and recoverability calculation method" (version V1, 20 Sep. 2008) and published by ADEME (French Agency for Environment and Energy Management).

According this method, the potential recyclability ratio is: 80%.

For more information on recycling, visit our website: "www.schneider-electric.fr".

Environmental impacts

The environmental impacts were analysed for the Manufacturing (M) phases, the Distribution (D) and the Utilisation (U) phases.

This product is included in the category 2 (assumed lifetime service is 10 years and using scenario: 1,44 W for 98% uptime).

The EIME (Environmental Impact and Management Explorer) software, version 4.0, and its database, version 10.0 were used for the life cycle assessment (LCA).

The calculation has been done on BLOC A TRANCHE LED Bi-fonction OVA 58932

The electrical power model used is European model.

Presentation of the product environmental impacts

Presentation of the product environmental impacts

Environmental indicators		Unit	For BLOC A TRANCHE LED Bi-fonction OVA 58932			
			S = M + D + U	M	D	U
Raw material depletion	RMD	Y-1	3,71E-13	2,23E-13	8,03E-18	1,48E-13
Energy depletion	ED	MJ	1,54E+03	1,38E+02	4,63	1,40E+03
Water depletion	WD	dm3	3,63E+02	63,57	1,881	2,98E+02
Global warming potential	GW	g□CO2	2,22E+04	7,95E+03	1,90E+02	1,40E+04
Ozone depletion	OD	g□CFC-11	2,09E-03	7,72E-04	9,07E-05	1,23E-03
Photochemical ozone creation	POC	g□C2H4	6,20E+06	2,45E+06	3,82E+04	3,71E+06
Air acidification	AA	g□H+	8,366	2,698	1,29E-01	5,538
Hazardous waste production	HWP	kg	5,13	1,939	2,73E-02	3,163
Water Eutrophication		dm3	5,13E+03	3,18E+03	61,194	1,89E+03
Air toxicity		g ~PO4	4,034	2,287	3,12E-02	1,716
Water toxicity		kg	3,19E-01	1,33E-01	3,87E-04	1,86E-01

The life cycle analysis shows that the U phase (M, D or U phase) is the life cycle phase which has the greatest impact on the majority of environmental indicators. The environmental parameters of this phase have been optimized at the design stage.

System approach

This product reduces the consumption of energy and the maintenance operations thanks to new led lightning source.

As the product is designed in accordance with the ROHS Directive (European Directive 2002/95/EC of 27 January 2003), it can be incorporated without any restriction within an assembly or an installation submitted to this Directive.

Please note that the environmental impacts of the product depend on the use and installation conditions of the product. Impacts values given above are only valid within the context specified and cannot be directly used to draw up the environmental assessment of the installation.

Product Environmental Profil – PEP

Glossary

Raw Material Depletion (RMD)	This indicator quantifies the consumption of raw materials during the life cycle of the product. It is expressed as the fraction of natural resources that disappear each year, with respect to all the annual reserves of the material.
Energy Depletion (ED)	<p>This indicator gives the quantity of energy consumed, whether it be from fossil, hydroelectric, nuclear or other sources.</p> <p>This indicator takes into account the energy from the material produced during combustion. It is expressed in MJ.</p>
Water Depletion (WD)	This indicator calculates the volume of water consumed, including drinking water and water from industrial sources. It is expressed in dm ³ .
Global Warming Potential (GWP)	<p>The global warming of the planet is the result of the increase in the greenhouse effect due to the sunlight reflected by the earth's surface being absorbed by certain gases known as "greenhouse-effect" gases.</p> <p>The effect is quantified in gram equivalent of CO₂.</p>
Ozone Depletion (OD)	This indicator defines the contribution to the phenomenon of the disappearance of the stratospheric ozone layer due to the emission of certain specific gases. The effect is expressed in gram equivalent of CFC-11.
Photochemical Ozone Creation (POC)	This indicator quantifies the contribution to the "smog" phenomenon (the photochemical oxidation of certain gases which generates ozone) and is expressed in gram equivalent of methane (C ₂ H ₄).
Air Acidification (AA)	<p>The acid substances present in the atmosphere are carried by rain. A high level of acidity in the rain can cause damage to forests.</p> <p>The contribution of acidification is calculated using the acidification potentials of the substances concerned and is expressed in mode equivalent of H⁺.</p>
Hazardous Waste Production (HWP)	<p>This indicator calculates the quantity of specially treated waste created during all the life cycle phases (manufacturing, distribution and utilization). For example, special industrial waste in the manufacturing phase, waste associated with the production of electrical power, etc.</p> <p>It is expressed in kg.</p>

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