

EPD Environmental Product Declaration

LONGO NÓMADA

Ref.LG150M91

Report Data 28.05.2015

Certificates

ISO 9001:2008
ISO 14001:2004
ISO 14006. Ecodesign
PEFC. Programme for the Endorsement of Forest Certification
FSC. Forest Stewardship Council
GBCe. Green Building Council Spain



1. Details of the system

Type	New Product	<input checked="" type="checkbox"/>	Redesign	<input type="checkbox"/>	Studied Year 2015
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Declaration
Scope: From extraction of raw materials to complete desk solution, including end of life.
The detail of each of the phases considered and its scope is included below

Materials	Production	Transport	Use	End of life
Including the extraction and processing of raw materials and component sourcing to its delivery at the Actiu Technological Park.	Consider the production and assembly processes used in Actiu.	Includes from the Actiu Technological Park to our customers facilities. Transport is provided through light commercial transport.	This stage has not environmentally relevance for life cycle analysis.	Any product can be disposed of in different ways, or become a resource. Drawing on national average dates, it is supposed that aluminium, wood and cardboard packaging is recycled, while the rest is treated as urban waste.

2. RAW MATERIALS USED FOR THE PRODUCT. Product specifications, including packaging

	KG of product solution	Percentage %	Quality of finishes	
			Production of raw materials	Processed
Carton	6,177	20,47%	Bibliographic data	Bibliographic data
Aluminium	15,473	51,27%	Bibliographic data	Bibliographic data
Acero	4,898	16,23%	Bibliographic data	Bibliographic data
Plastics	2,18	7,22%	Bibliographic data	Bibliographic data
Other	1,452	4,81%	Bibliographic data	Bibliographic data
TOTAL	30,18	100,00%		
% recycled materials		71,74%		
% recyclable materials		87,97%		

ACTIU product design is made to facilitate the separation of its components and recycling.

The product is designed to help companies LEED® certification. You can obtain LEED® credits with our product. On the one hand, contains a high percentage of recycled materials and is manufactured with low emissions to the atmosphere. On the other hand, has been designed with ergonomic standards. Finally, it can be easily recycled because it is designed for disassembly and identification of very simple components. This will help you achieve LEED® credits for employee health and innovation

The verification process life cycle analysis is performed by independent experts in Ecodesign (Consultant Business Area) and using the criteria of the standard ISO 14006 "Ecodesign".

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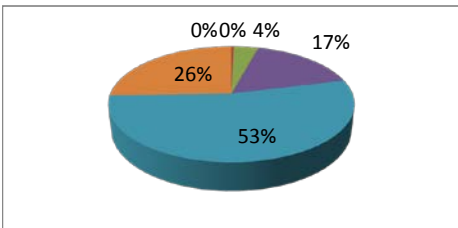
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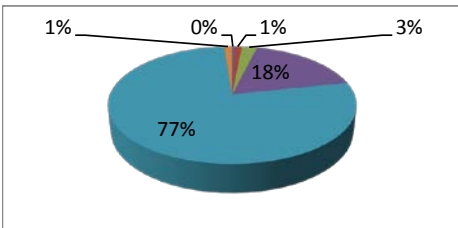
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

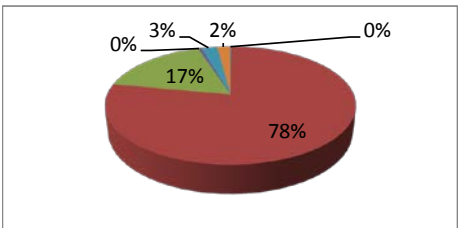
Impact category	Substance	Unit	Total
ACIDIFICATION	Remaining substances	kg SO2 eq	0
	Ammonia	kg SO2 eq	0,002437278
	Nitrogen dioxide	kg SO2 eq	0,02962816
	Nitrogen oxides	kg SO2 eq	0,12889125
	Sulfur dioxide	kg SO2 eq	0,406338894
	Sulfur oxides	kg SO2 eq	0,193929614
	TOTAL	kg SO2 eq	0,761225196



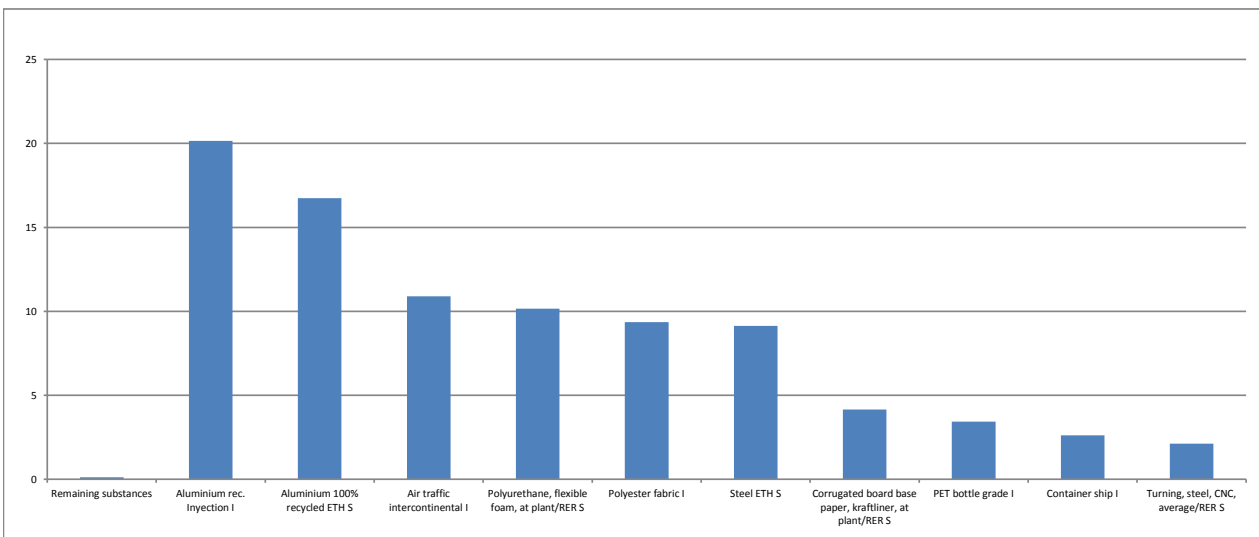
Impact category	Substance	Unit	Total
EUTROFIZATION	Remaining substances	kg PO4--- eq	0,000124163
	Ammonia	kg PO4--- eq	0,000533154
	Dinitrogen monoxide	kg PO4--- eq	0,001025954
	Nitrogen dioxide	kg PO4--- eq	0,007703322
	Nitrogen oxides	kg PO4--- eq	0,033511725
	Ammonium, ion	kg PO4--- eq	0,000532773
	TOTAL	kg PO4--- eq	0,056671196



Impact category	Substance	Unit	Total
GLOBAL WARMING	Remaining substances	kg CO2 eq	0,167574172
	Carbon dioxide	kg CO2 eq	72,35194631
	Carbon dioxide, fossil	kg CO2 eq	15,81920203
	Carbon monoxide	kg CO2 eq	0,394953597
	Dinitrogen monoxide	kg CO2 eq	2,33601722
	Methane	kg CO2 eq	1,926425649
	TOTAL	kg CO2 eq	94,88279454



Impact of group elements (materials, processes, energy, use, transport and waste)



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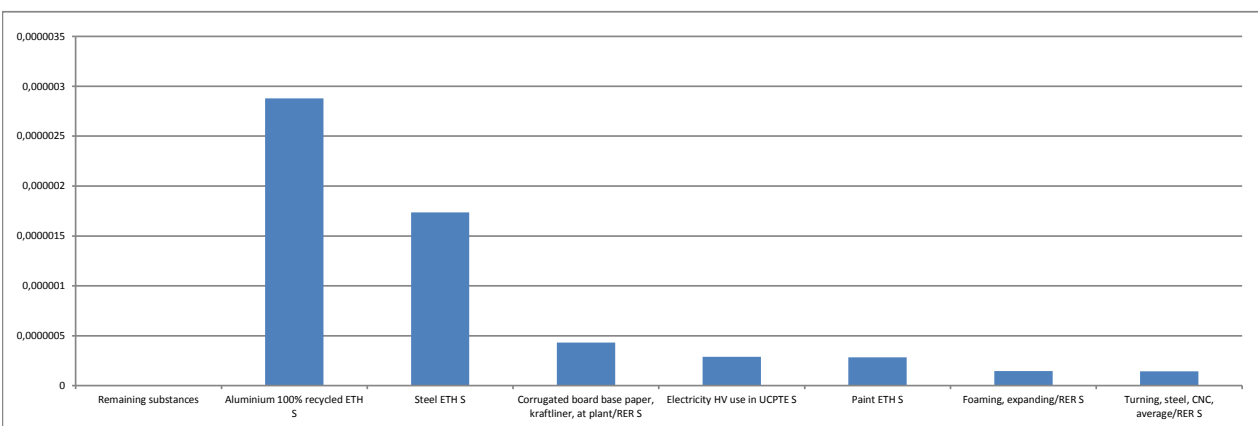
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	Remaining substances	kg CFC-11 eq	6,70971E-11
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	3,65554E-07
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	5,36941E-06
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	2,56599E-08
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	1,4579E-07
	Methane, trichlorofluoro-, CFC-11	kg CFC-11 eq	5,17054E-08
	TOTAL	kg CFC-11 eq	5,95819E-06

Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining substances	kg C2H4 eq	0,000659705
	Carbon monoxide	kg C2H4 eq	0,006792196
	Carbon monoxide, fossil	kg C2H4 eq	0,000851931
	Ethene	kg C2H4 eq	0,0001638
	Hydrocarbons, unspecified	kg C2H4 eq	0,059711424
	Methane	kg C2H4 eq	0,000502546
	TOTAL	kg C2H4 eq	0,140277965

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Remaining substances	MJ eq	1,206912128
	Coal, 18 MJ per kg, in ground	MJ eq	138,6643224
	Coal, 29,3 MJ per kg, in ground	MJ eq	71,07830836
	Coal, brown, 8 MJ per kg, in ground	MJ eq	19,17640314
	Coal, brown, in ground	MJ eq	13,80331216
	Coal, hard, unspecified, in ground	MJ eq	37,13607501
	TOTAL	MJ eq	1418,254118

WASTE

Total NO HAZARDOUS

KG

4,36

Total HAZARDOUS

KG

0,11

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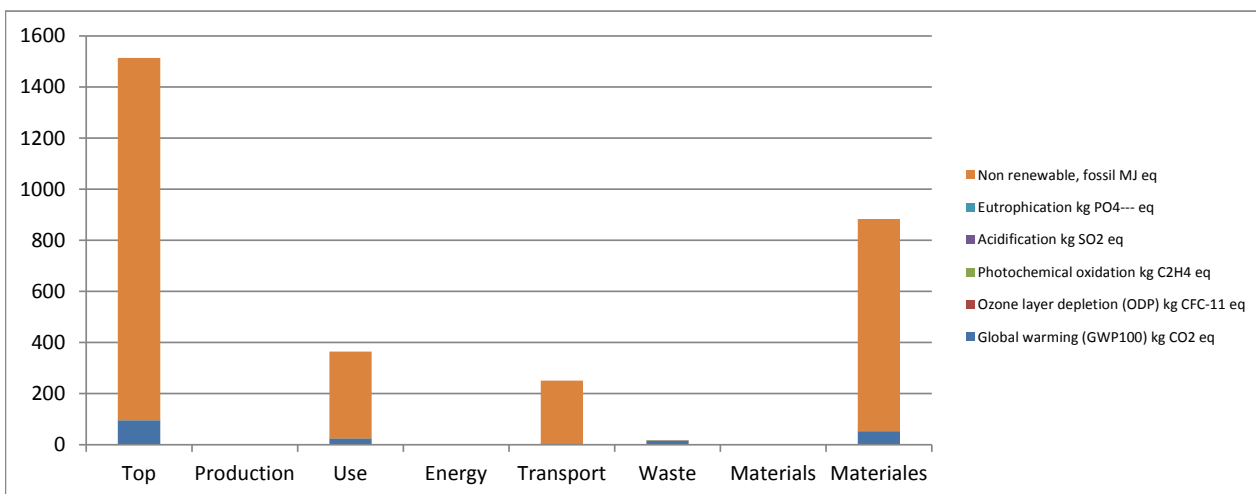
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	94,88279454	0	23,75514963	0	2,597188059	15	0	53,53
Ozone layer depletion (ODP)	kg CFC-11 eq	5,95819E-06	0	2,8718E-07	0	2,93015E-07	1E-09	0	5E-06
Photochemical oxidation	kg C2H4 eq	0,140277965	0	0,052642984	0	0,005645006	0,01	0	0,072
Acidification	kg SO2 eq	0,761225196	0	0,337289052	0	0,022185388	0,104	0	0,298
Eutrophication	kg PO4--- eq	0,056671196	0	0,005246961	0	0,002052316	0,015	0	0,034
Non renewable, fossil	MJ eq	1418,254118	0	340,2774961	0	247,9772052	0,027	0	830



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6. Ecodesign improvements considered.

ACTIU products are designed considering different environmental strategies. According to their level of complexity, the strategies used are classified into one of the following. Here are some of the choices for ecodesign significant product.

PRODUCT STRATEGY ECODESIGN	CHOICES
Low impact materials selection	<p>Designed to be manufactured with 72% recycled materials</p> <p>100% recycled aluminium</p> <p>Powder paint with no VOC emissions</p> <p>Limitation on use of hazardous substances. Without chromium, mercury, cadmium</p> <p>Recycled cardboard packaging</p>
Optimization of product techniques	<p>Optimizing energy use throughout the production process</p> <p>Painting processes of high technology systems.</p> <p>Recovery unused paint in the process. Zero emissions of VOCs.</p> <p>Automated manufacturing systems. Planning the cutting process.</p> <p>Closed water circuits. Heat recovery.</p> <p>Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems for energy saving.</p>
Optimization of distribution system	<p>Reducing energy. Removable systems. Low volume packaging. Spaces optimization.</p> <p>Saving energy and Flexibility. Modular system adaptable between different models.</p>
Optimization of product life	<p>15 years minimum life time</p> <p>Product is easy to maintain and clean. It can be easily cleaned with a damp cloth with water.</p> <p>The product is part of a modular program. Easy to modify, extend and repair to maximize its life time.</p>
Optimization of the end of system life	<p>Easy separation of product components</p> <p>High degree of recyclability of the product: 88%</p> <p>Packaging reuse system between ACTIU and its providers to avoid waste generation</p>

Bibliography and references

ISO 14025 Environmental labels and declarations – Tipo III

ISO 14044:2006 "Environmental management. Life time cycle analysis. Requirements and guidelines "

UNE - EN ISO 14006:2011 "Environmental management systems. Guidelines to incorporate ecodesign "

Methods to calculate environmental impact

Base datos: ETH-ESU System processes, Ecoinvent system processes, IDEMAT, EDIP, IPCC, Ecological Scarcity 2006.