EPD Environmental Product Declaration

VITAL TABLE

Ref. H14112

Report Data 28.01.2010

Certificates

ISO 9001:2008
ISO 14001:2004
UNE 150301. Ecodesign
PEFC. Programme for the Endorsement of Forest Certification
GBCe. Green Building Council Spain

1. Details of the system

Type	New Product ☒	Redesign ☐	Studied Year2009
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 material	Processed
Wood	20,706	55,13%	Bibliographic data	Bibliographic data
Steel	9,4077	25,05%	Bibliographic data	Bibliographic data
Corrugated Board	3,484	9,28%	Bibliographic data	Bibliographic data
Aluminium	1,532	4,08%	Bibliographic data	Bibliographic data
Plastic	1,854	4,94%	Bibliographic data	Bibliographic data
Others	0,5768	1,54%	Bibliographic data	Bibliographic data
TOTAL	**37,56**	**100,00%**		
% recicled materials		58,31%		
% reciclable materials		94,39%		

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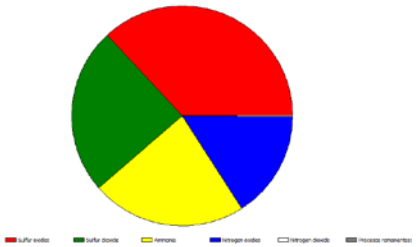
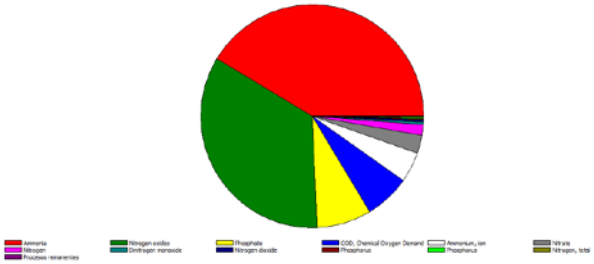
3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

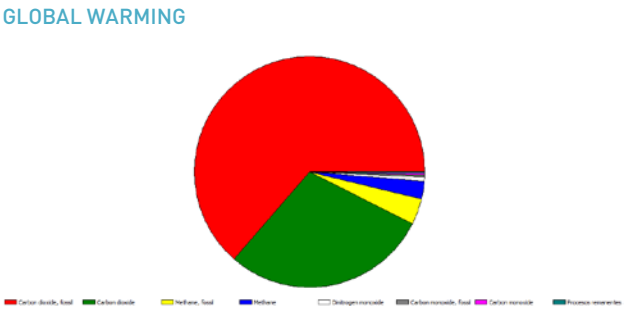
Impact category	Substance	Unit	Total
ACIDIFICATION	Remaining Substances	kg SO2 eq	0,00333
	Melamine, at plant/RER S	kg SO2 eq	0,432773
	Cast iron ETH S	kg SO2 eq	0,383552
	Turning, cast iron, CNC, average/RER S	kg SO2 eq	0,088053
	Aluminium rec. Inyection I	kg SO2 eq	0,026919
	Injection moulding I	kg SO2 eq	0,009015
	TOTAL	kg SO2 eq	0,995977



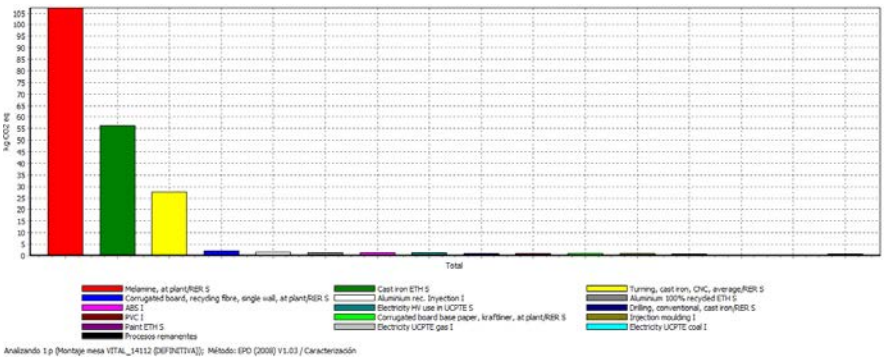
Impact category	Substance	Unit	Total
EUTROFIZATION	Remaining Substances	kg PO4--- eq	0,000268
	Melamine, at plant/RER S	kg PO4--- eq	0,077572
	Turning, cast iron, CNC, average/RER S	kg PO4--- eq	0,019388
	Cast iron ETH S	kg PO4--- eq	0,014508
	Corrugated board, recycling fibre, single wall, at plant/RER S	kg PO4--- eq	0,001855
	Corrugated board base paper, kraftliner, at plant/RER S	kg PO4--- eq	0,001488
	TOTAL	kg PO4--- eq	0,1193



Impact category	Substance	Unit	Total
GLOBAL WARMING	Remaining Substances	kg CO2 eq	0,590693
	Melamine, at plant/RER S	kg CO2 eq	107,377
	Cast iron ETH S	kg CO2 eq	56,40533
	Turning, cast iron, CNC, average/RER S	kg CO2 eq	27,59902
	Corrugated board, recycling fibre, single wall, at plant/RER S	kg CO2 eq	2,205884
	Aluminium rec. Inyection I	kg CO2 eq	1,676624
	TOTAL	kg CO2 eq	204,6096



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



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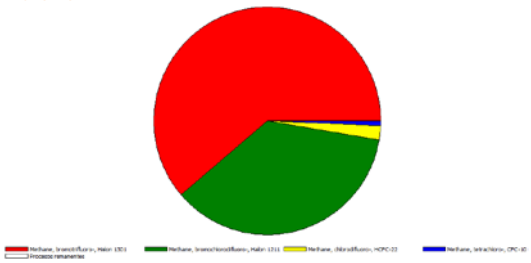
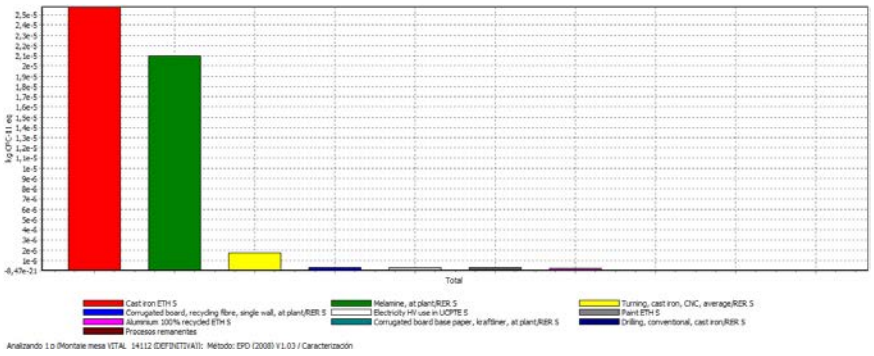
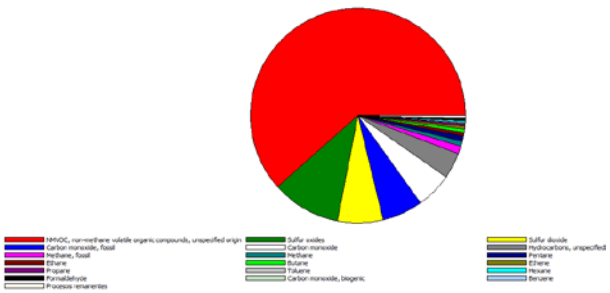
Impact category	Substance	Unit	Total
REDUCING OZONE	Remaining Substances	Kg CFC-11 eq	7,47E-08
	Cast iron ETH S	Kg CFC-11 eq	2,58E-05
	Melamine, at plant/RER S	Kg CFC-11 eq	2,1E-05
	Turning, cast iron, CNC, average/RER S	Kg CFC-11 eq	1,78E-06
	Corrugated board, recycling fibre, single wall, at plant/RER S	Kg CFC-11 eq	3,14E-07
	Electricity HV use in UCPTE S	Kg CFC-11 eq	2,73E-07
	TOTAL	kg CFC-11 eq	4,99E-05



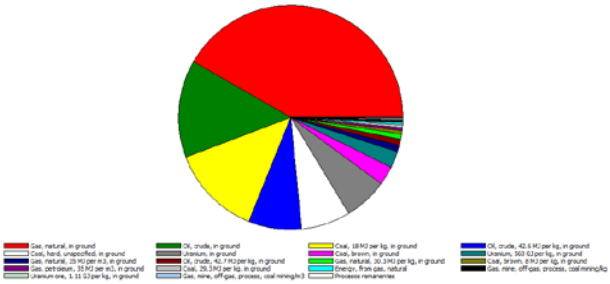
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining Substances	kg C2H4 eq	0,000904
	Cast iron ETH S	kg C2H4 eq	0,08621
	Melamine, at plant/RER S	kg C2H4 eq	0,051786
	Turning, cast iron, CNC, average/RER S	kg C2H4 eq	0,017604
	Aluminium rec. Inyection I	kg C2H4 eq	0,003118
	PVC I	kg C2H4 eq	0,003016
	TOTAL	kg C2H4 eq	0,170779



Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Remaining Substances	MJ eq	10,36203
	Melamine, at plant/RER S	MJ eq	2110,322
	Cast iron ETH S	MJ eq	848,9011
	Turning, cast iron, CNC, average/RER S	MJ eq	431,3637
	Corrugated board, recycling fibre, single wall, at plant/RER S	MJ eq	32,54446
	Electricity HV use in UCPTE S	MJ eq	26,37226
	TOTAL	MJ eq	3621,201



WASTE	Total NO HAZARDOUS	KG	15,4
	Total HAZARDOUS	KG	0,0201

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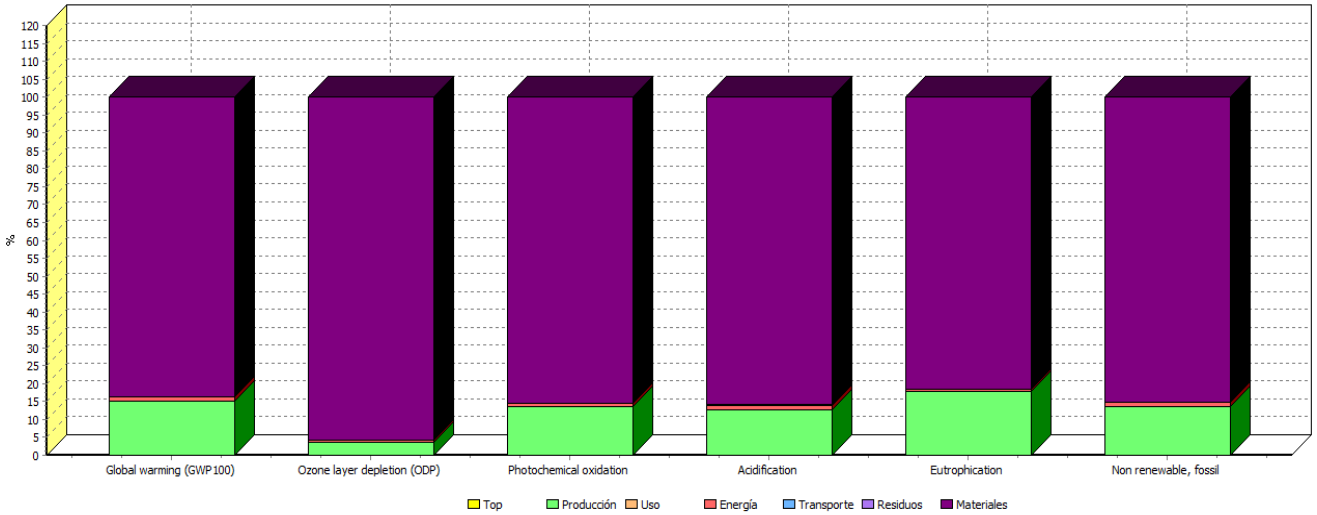
4. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Categry	Uts.	Total	Top	Production	Use	Energy	Transport	Waste	Materials
Global warming	kg CO2 eq	204,6096	0	31,20069	0	2,195951	0,118489	0	171,0945
Ozone layer depletion	kg CFC-11 eq	4,99E-05	0	1,85E-06	0	3,18E-07	9E-10	0	4,77E-05
Photochemical oxidation	kg C2H4 eq	0,170779	0	0,023273	0	0,001258	0,000182	0	0,146066
Acidification	kg SO2 eq	0,995977	0	0,127319	0	0,011355	0,002269	0	0,855034
Eutrophication	kg PO4--- eq	0,1193	0	0,021251	0	0,000601	0,000307	0	0,097142
Non renewable, fossil	MJ eq	3621,201	0	493,218	0	40,83822	0,016833	0	3087,128



Analizando 1 p (Montaje mesa VITAL_14112 (DEFINITIVA)); Método: EPD (2008) V1.03 / Caracterización

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5. 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	Designed to be manufactured with 58% recycled materials 100% recycled aluminium Powder paint with no VOC admissions Limitation on use of hazardous substances. Whithout chromium, mercury, cadmium Board from recycled wood fibers Table edge without glue VOC content Wood meets E1 standard (reduced emissions, EN13986), does not emit formaldehyde. Recycled cardboard packaging
Optimization of product techniques	Optimizing energy use throughout the production process Painting processes of high technology systems.: Zero VOC emissions and other pollutants. Recovery unused paint in the process. Zero emissions of VOCs. Cleaning metals by closed water circuit Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems for energy savings.
Optimization of distribution system	Low volume packaging. Spaces optimization. Saving energy and Flexibility. Modular system adaptable between different models.
Optimization of product life	15 years minimun duration. Easy Maintenace y cleaning. Easily cleaned with a damp cloth with water. The product is part of a modular program. Easy to modify, expand and repair.
Optimization of the end of system life	Easy separation of product components High degree of recyclability of the product: 94% Packaging reuse system between ACTIU and its providers to avoid waste generation

Bibliography and references

ISO 14025 Environmental labels and declarations – Type III
UNE-EN-ISO 150301:2003 "Ecodesign".
ISO 14044:2006 "Environmental management. Lifecycle analysis. Requirements and guidelines"
UNE 150301:2003 "Ecodesign"
Environmental impacts methods
Data base: ETH-ESU System processes, Ecoinvent system processes, IDEMAT, EDIP, IPCC, Ecological Scarcity 2006.