

EPD Environmental Product Declaration



MFC PEDESTAL

Ref. J13200

Report Data 08.07.2010

Certificates

ISO 9001:2008

ISO 14001:2004

UNE 14006. Ecodesign

PEFC. Programme for the Endorsement of Forest Certification

GBCe. Green Building Council Spain



1. Details of the system

Type New Product ☒ Redesign ☐ Studied Year 2009

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	17,5894	64,04%	Bibliographic data	Bibliographic data
Steel	2,1344	7,77%	Bibliographic data	Bibliographic data
Cardboard	2,972	10,82%	Bibliographic data	Bibliographic data
Plastic	4,405215	16,04%	Bibliographic data	Bibliographic data
Others	0,3636	1,32%		
TOTAL	27,465	100,00%		
% recycled materials		62,06%		
% recyclable materials		82,64%		

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".

This product has been manufactured in the facilities of ACTIU BERBEGAL Y FORMAS, S.A

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EPD Environmental Product Declaration

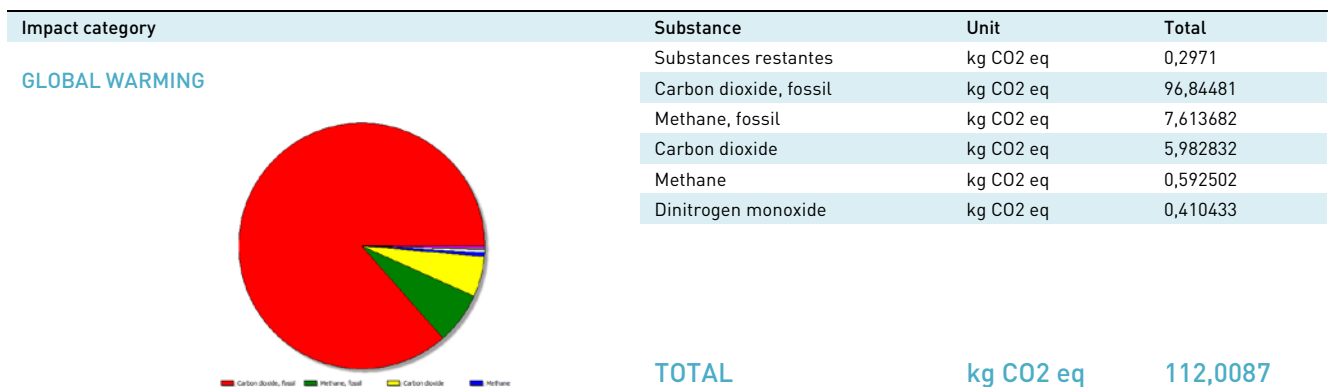
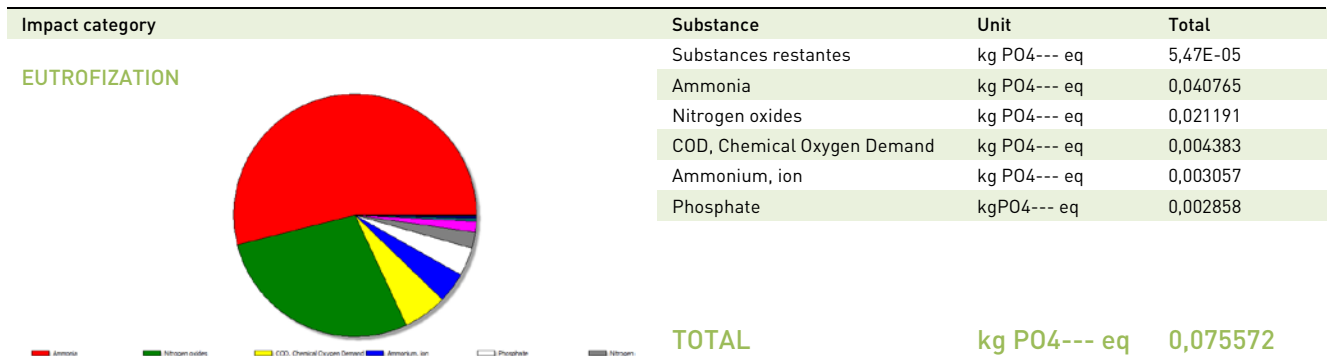
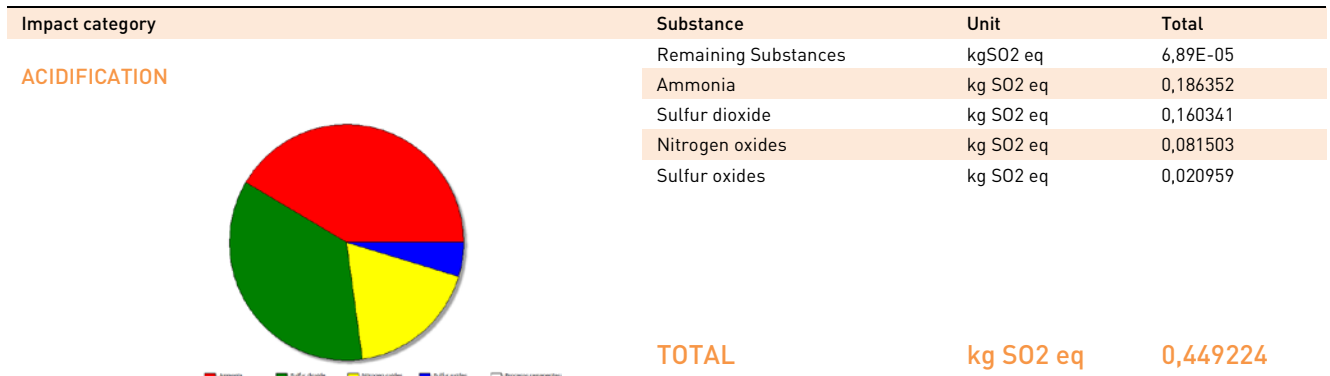


MFC PEDESTAL

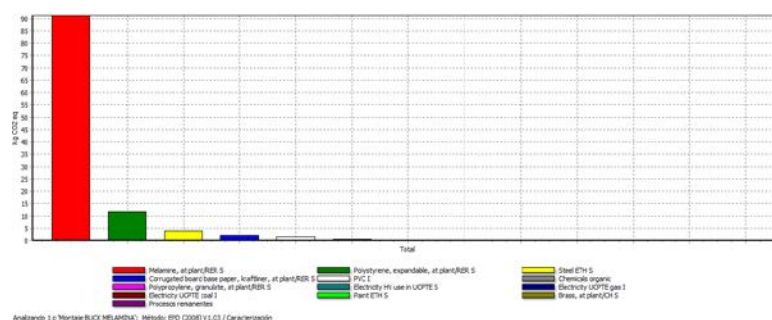
Ref. J13200

Report Data 08.07.2010

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



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

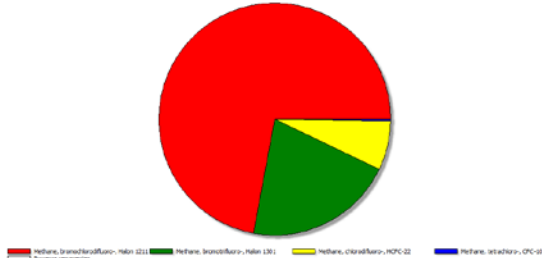


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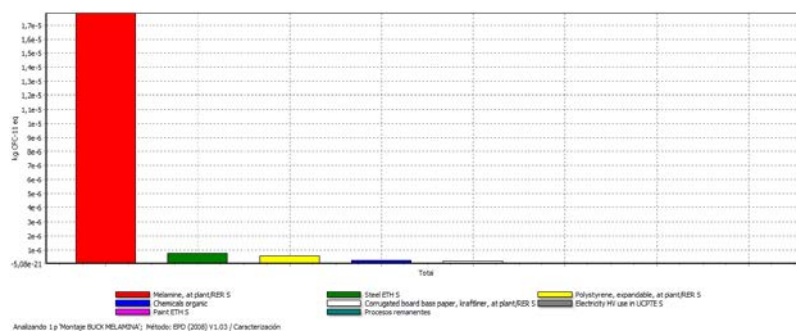
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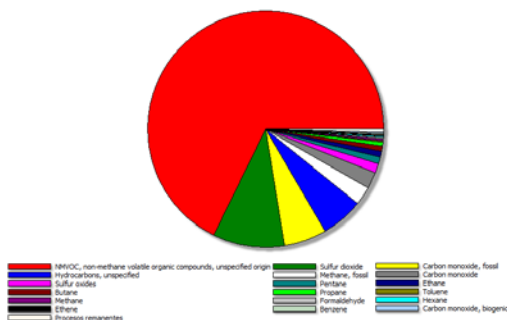
Impact category	Substance	Unit	Total
REDUCING OZONE	Substances restantes	kg CFC-11 eq	1,06E-08
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	1,42E-05
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	4,11E-06
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	1,34E-06
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	5,41E-08
TOTAL		kg CFC-11 eq	1,97E-05



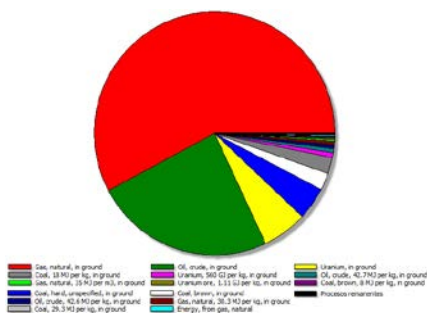
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Substances restantes	kg C2H4	0,000376
	NMVOG, non-methane volatile organic compounds, unspecified origin	kg C2H4	0,053147
	Sulfur dioxide	kg C2H4	0,007696
	Carbon monoxide, fossil	kg C2H4	0,004597
	Hydrocarbons, unspecified	kg C2H4	0,0045
	Methane, fossil	kg C2H4	0,001986
TOTAL		kg C2H4 eq	0,078454



Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substances restantes	MJ eq	5,281199
	Gas, natural, in ground	MJ eq	1316,265
	Oil, crude, in ground	MJ eq	550,295
	Uranium, in ground	MJ eq	136,3066
	Coal, hard, unspecified, in ground	MJ eq	100,304
	Coal, brown, in ground	MJeq	51,69822
TOTAL		MJ eq	2276,738



WASTE	Total NO HAZARDOUS	KG	7,43
	Total HAZARDOUS	KG	0,0571

EPD Environmental Product Declaration



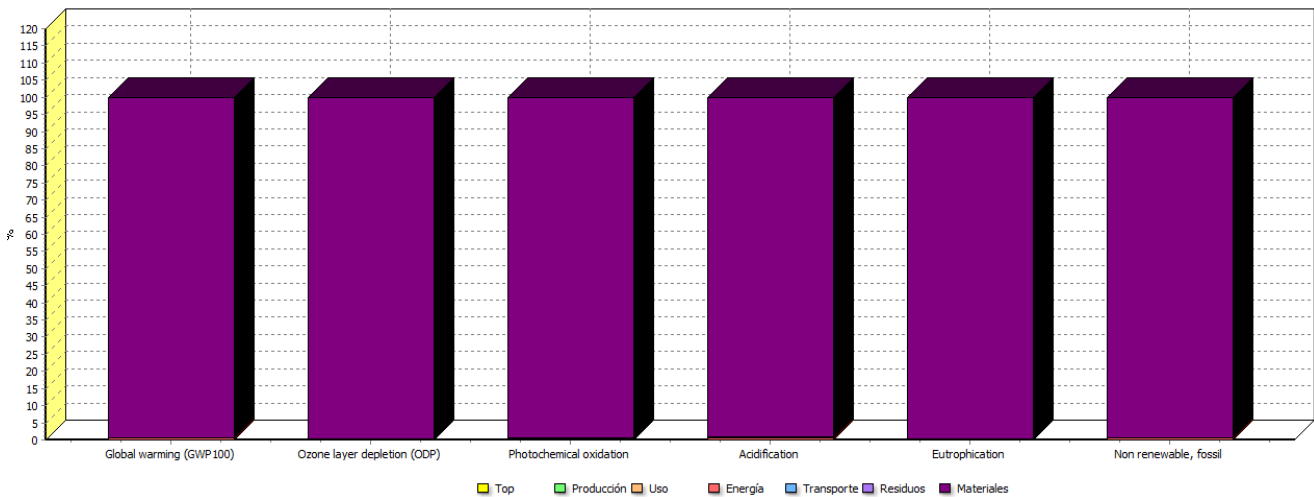
MFC PEDESTAL

Ref. J13200

Report Data 08.07.2010

4. 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	Transport	Waste	Materials
Global warming	kg CO2 eq	112,0087	0	0	0	0,642485	0,028078	0	111,3381
Ozone layer depletion	kg CFC-11 eq	1,97E-05	0	0	0	8,19E-08	6,58E-10	0	1,97E-05
Photochemical oxidation	kg C2H4 eq	0,078454	0	0	0	0,000342	4,28E-05	0	0,078069
Acidification	kg SO2 eq	0,449224	0	0	0	0,003152	0,000626	0	0,445446
Eutrophication	kg PO4--- eq	0,075572	0	0	0	0,00018	6,97E-05	0	0,075323
Non renewable, fossil	MJ eq	2276,738	0	2,990861	0	11,34373	0,012299	0	2262,391



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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	<p>Designed to be manufactured with 62% recycled materials</p> <p>100% recycled aluminium</p> <p>Powder paint with no VOC admissions</p> <p>Limitation on use of hazardous substances. Without chromium, mercury, cadmium</p> <p>Board from recycled wood fibers</p> <p>Table edge without glue VOC content</p> <p>Wood meets E1 standard (reduced emissions, EN13986), does not emit formaldehyde.</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>Zero VOC emissions and other pollutants.</p> <p>Recovery unused paint in the process. Zero emissions of VOCs.</p> <p>Cleaning metals by closed water circuit</p> <p>Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems for energy savings.</p>
Optimization of distribution system	<p>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 duration.</p> <p>Easy Maintenance y cleaning. Easily cleaned with a damp cloth with water.</p> <p>The product is part of a modular program. Easy to modify, expand and repair.</p>
Optimization of the end of system life	<p>Easy separation of product components</p> <p>High degree of recyclability of the product: 83%</p> <p>Packaging reuse system between ACTIU and its providers to avoid waste generation</p>

Bibliography and references

ISO 14025 Environmental labels and declarations – Type III

UNE-EN-ISO 14006 "Ecodesign".

ISO 14044:2006 "Environmental management. Lifecycle analysis. Requirements and guidelines"

UNE 14006 "Ecodesign"

Environmental impacts methods

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