

EPD Environmental Product Declaration

METAL STORAGE WITH METAL DOORS (160x80)

Ref. AP232202

Report Data 06.03.2012

Certificates

ISO 9001:2008
 ISO 14001:2004
 ISO 14006. Ecodiseño
 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 ☒ Redesign ☐ Studied Year 2010

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
Plastic	0,123	0,22%	Bibliographic data	Bibliographic data
Steel	54,06	98,48%	Bibliographic data	Bibliographic data
Others	0,713	1,30%	Bibliographic data	Bibliographic data
TOTAL	54,896	100,00%		
% recycled materials		0,00%		
% recyclable materials		98,48%		

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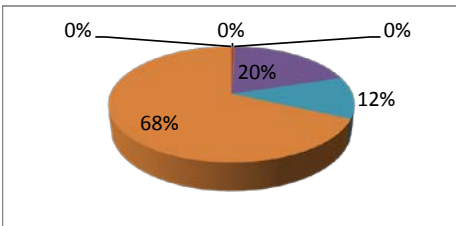
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category

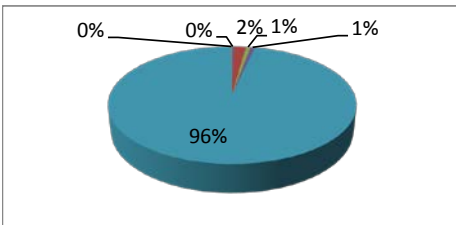
ACIDIFICATION



Substance	Unit	Total
Remaining Substances	kg SO2 eq	0
Ammonia	kg SO2 eq	0,002060056
Nitrogen dioxide	kg SO2 eq	0,000623768
Nitrogen oxides	kg SO2 eq	0,086805336
Sulfur dioxide	kg SO2 eq	0,051481013
Sulfur oxides	kg SO2 eq	0,302053697
TOTAL	kg SO2 eq	0,443023871

Impact category

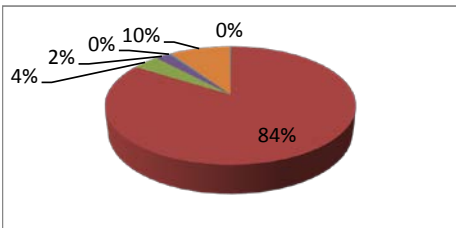
EUTROFIZATION



Substance	Unit	Total
Remaining Substances	kg PO4--- eq	5,53899E-05
Ammonia	kg PO4--- eq	0,000450637
Dinitrogen monoxide	kg PO4--- eq	0,000168839
Nitrogen dioxide	kg PO4--- eq	0,00016218
Nitrogen oxides	kg PO4--- eq	0,022569387
Phosphorus, total	kg PO4--- eq	3,90628E-05
TOTAL	kg SO2 eq	0,032858268

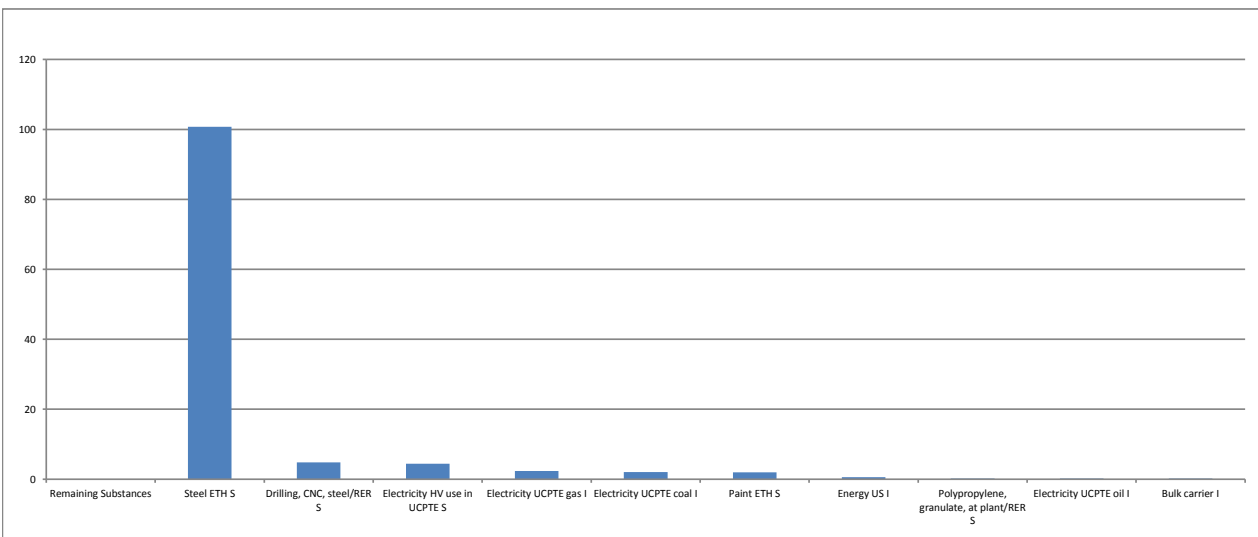
Impact category

GLOBAL WARMING



Substance	Unit	Total
Remaining Substances	kg CO2 eq	0,211504049
Carbon dioxide	kg CO2 eq	98,40998877
Carbon dioxide, fossil	kg CO2 eq	4,781712797
Carbon monoxide	kg CO2 eq	2,550090263
Dinitrogen monoxide	kg CO2 eq	0,384432734
Methane	kg CO2 eq	11,19603052
TOTAL	kg SO2 eq	117,8034622

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



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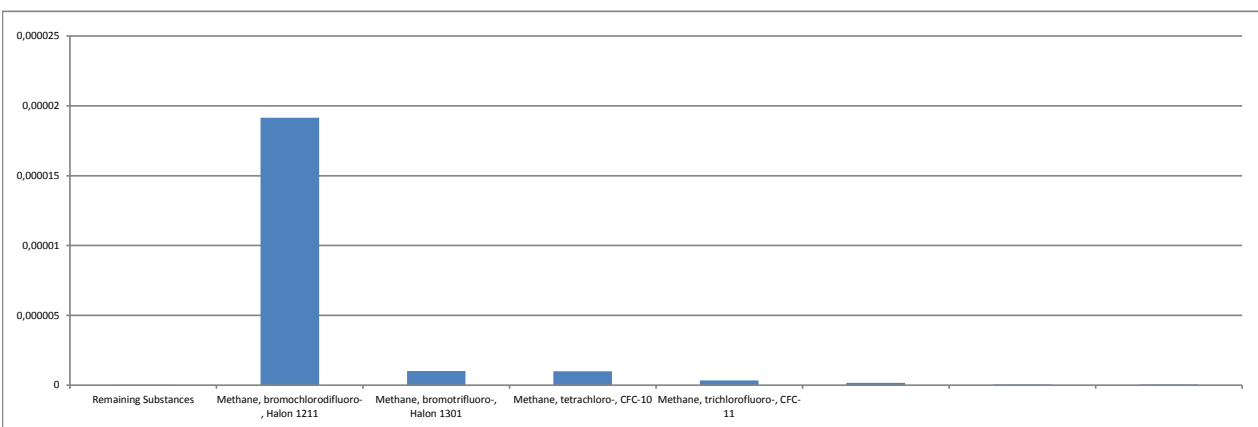
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	#REF!	kg CFC-11 eq	1,84076E-08
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	2,07891E-07
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	2,12356E-05
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	1,48692E-07
	Methane, trichlorofluoro-, CFC-11	kg CFC-11 eq	1,55895E-07
	TOTAL	kg SO2 eq	2,17665E-05

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



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining Substances	kg C2H4 eq	0,000877651
	Butane	kg C2H4 eq	0,000183098
	Carbon monoxide	kg C2H4 eq	0,043855055
	Carbon monoxide, fossil	kg C2H4 eq	0,000946156
	Ethene	kg C2H4 eq	0,001010502
	Hydrocarbons, unspecified	kg C2H4 eq	0,000263956
	TOTAL	kg SO2 eq	0,136788063

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Remaining Substances	MJ eq	3,765826984
	Coal, 18 MJ per kg, in ground	MJ eq	1158,53175
	Coal, 29.3 MJ per kg, in ground	MJ eq	2,693504037
	Coal, brown, 8 MJ per kg, in ground	MJ eq	57,89772719
	Coal, brown, in ground	MJ eq	5,41546367
	Coal, hard, unspecified, in ground	MJ eq	24,17715765
	TOTAL	kg SO2 eq	1986,156392

WASTE	Total NO HAZARDOUS	KG	2,61
	Total HAZARDOUS	KG	0,00171

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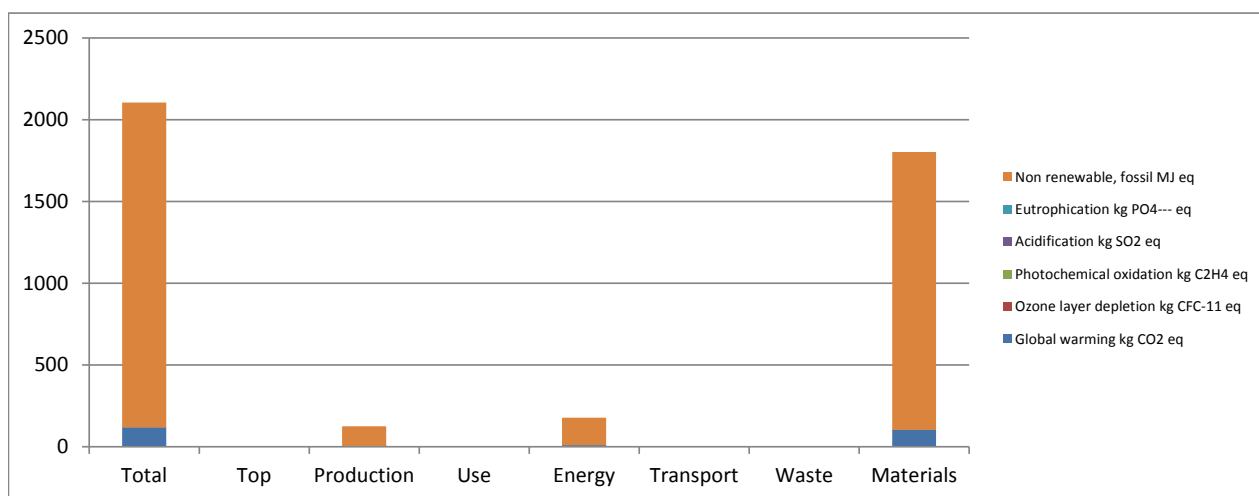
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming	kg CO2 eq	117,8035	0	4,92359	0	9,679719	0,251	0	102,9
Ozone layer depletion	kg CFC-11 eq	0,0000218	0	0,00000034	0	0,00000128	1E-09	0	2E-05
Photochemical oxidation	kg C2H4 eq	0,136788	0	0,003829	0	0,00517	4E-04	0	0,127
Acidification	kg SO2 eq	0,443024	0	0,016065	0	0,047141	0,006	0	0,374
Eutrophication	kg PO4--- eq	0,032858	0	0,004324	0	0,002686	6E-04	0	0,025
Non renewable, fossil	MJ eq	1986,156	0	119,5238	0	168,1054	0,025	0	1699



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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	Powder paint with no VOC emissions
	Limitation on use of hazardous substances. Without chromium, mercury, cadmium
	Recycled cardboard packaging
Optimization of product techniques	Optimizing energy use throughout the production process
	Low manufacturing energy consumption. Minimum environmental impact.
	Painting processes of high technology systems.
	Recovery unused paint in the process. Zero emissions of VOCs.
	Closed water circuits. Heat recovery.
Optimization of distribution system	Automated manufacturing systems. Planning the cutting process.
	Reducing energy. Removable systems. Low volume packaging. Spaces optimization.
Optimization of product life	Saving energy and Flexibility. Modular system adaptable between different models.
	Long life guarantees
	Adaptability and growth facilities.
	Replacement parts possibilities.
Optimization of the end of system life	Easy Maintenance
	Easy separation of product components
	High degree of recyclability of the product: 98%
	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 14006 "Ecodesign"

ISO 14006 "Ecodesign"

Environmental impacts methods

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