

# EPD Environmental Product Declaration

## ON TIME

Ref. OT220000

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                      From extraction of raw materials to complete desk solution, including end of life.  
Scope:                      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
Wood	38,62	70,52%	Bibliographic data	Bibliographic data
Steel	7,607	13,89%	Bibliographic data	Bibliographic data
Aluminium	3,067	5,60%	Bibliographic data	Bibliographic data
Plastic	0,904	1,65%	Bibliographic data	Bibliographic data
Coarrugated Board	2,972	5,43%	Bibliographic data	Bibliographic data
Others	1,597	2,92%	Bibliographic data	Bibliographic data
<b>TOTAL</b>	<b>54,767</b>	<b>100,00%</b>		
% recycled materials		67,44%		
% recyclable materials		95,43%		

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 UNE 150301:2003 "Ecodesign".

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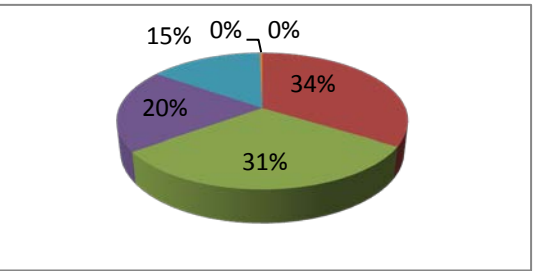
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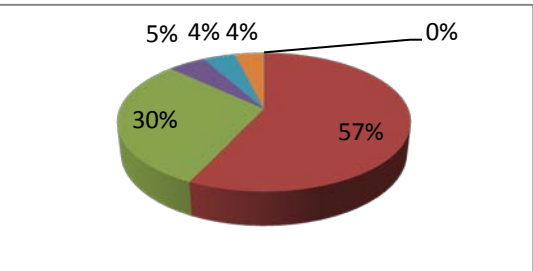
3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
ACIDIFICATION	Remaining Substances	kg SO2 eq	0
	Ammonia	kg SO2 eq	0,408631294
	Sulfur dioxide	kg SO2 eq	0,376755731
	Sulfur oxides	kg SO2 eq	0,23846993
	Nitrogen oxides	kg SO2 eq	0,18055491
	TOTAL	kg SO2 eq	1,208583865



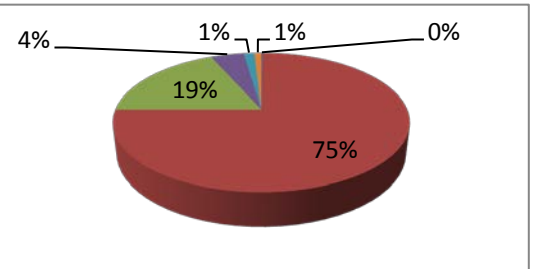
Substance	Percentage
Remaining Substances	0%
Ammonia	34%
Sulfur dioxide	31%
Sulfur oxides	20%
Nitrogen oxides	15%

Impact category	Substance	Unit	Total
EUTROFIZATION	Remaining Substances	kg PO4--- eq	0,000171827
	Ammonia	kg PO4--- eq	0,089388096
	Nitrogen oxides	kg PO4--- eq	0,046944276
	COD, Chemical Oxygen Demand	kg PO4--- eq	0,007742816
	Ammonium, ion	kg PO4--- eq	0,006680303
	Phosphate	kg PO4--- eq	0,006037293
	TOTAL	kg SO2 eq	0,163586455



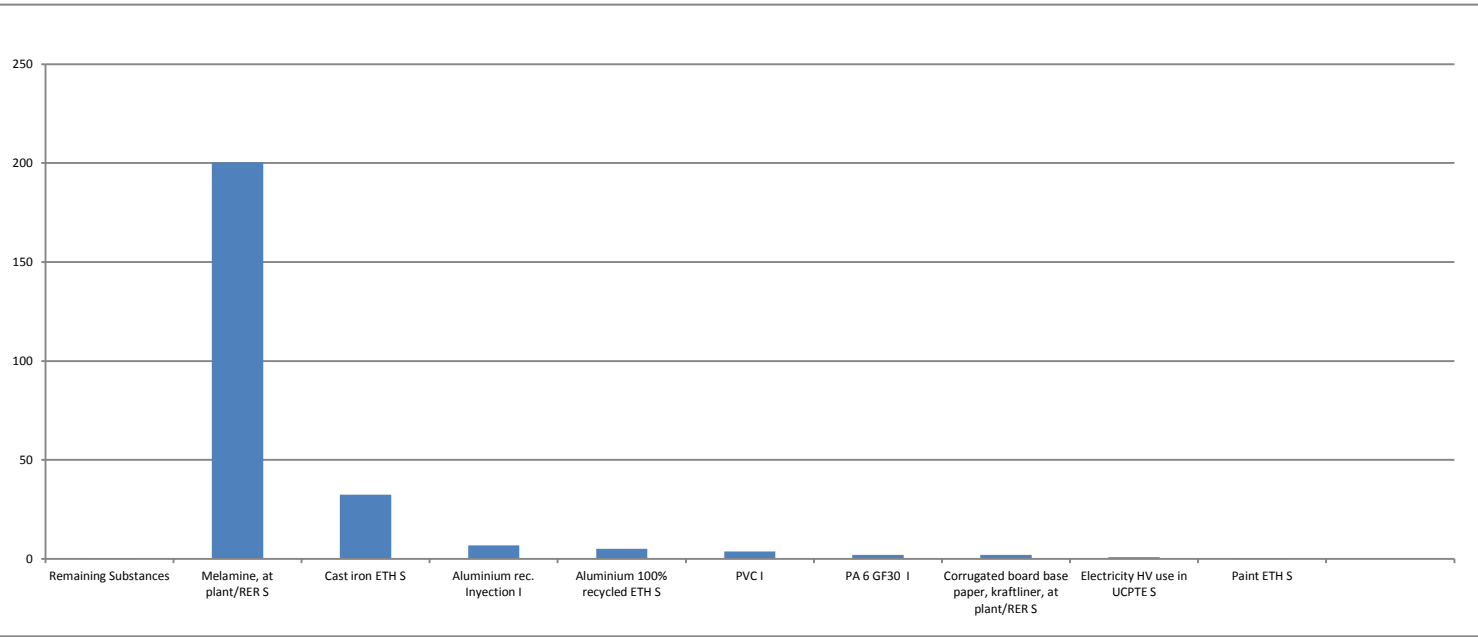
Substance	Percentage
Remaining Substances	0%
Ammonia	57%
Nitrogen oxides	30%
COD, Chemical Oxygen Demand	5%
Ammonium, ion	4%
Phosphate	4%

Impact category	Substance	Unit	Total
GLOBAL WARMING	Remaining Substances	kg CO2 eq	0,380218177
	Carbon dioxide, fossil	kg CO2 eq	189,6370753
	Carbon dioxide	kg CO2 eq	46,57912925
	Methane, fossil	kg CO2 eq	10,94944907
	Methane	kg CO2 eq	3,503778884
	Dinitrogen monoxide	kg CO2 eq	2,321596754
	TOTAL	kg SO2 eq	254,2251107



Substance	Percentage
Remaining Substances	0%
Carbon dioxide, fossil	75%
Carbon dioxide	19%
Methane, fossil	4%
Methane	1%
Dinitrogen monoxide	1%

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



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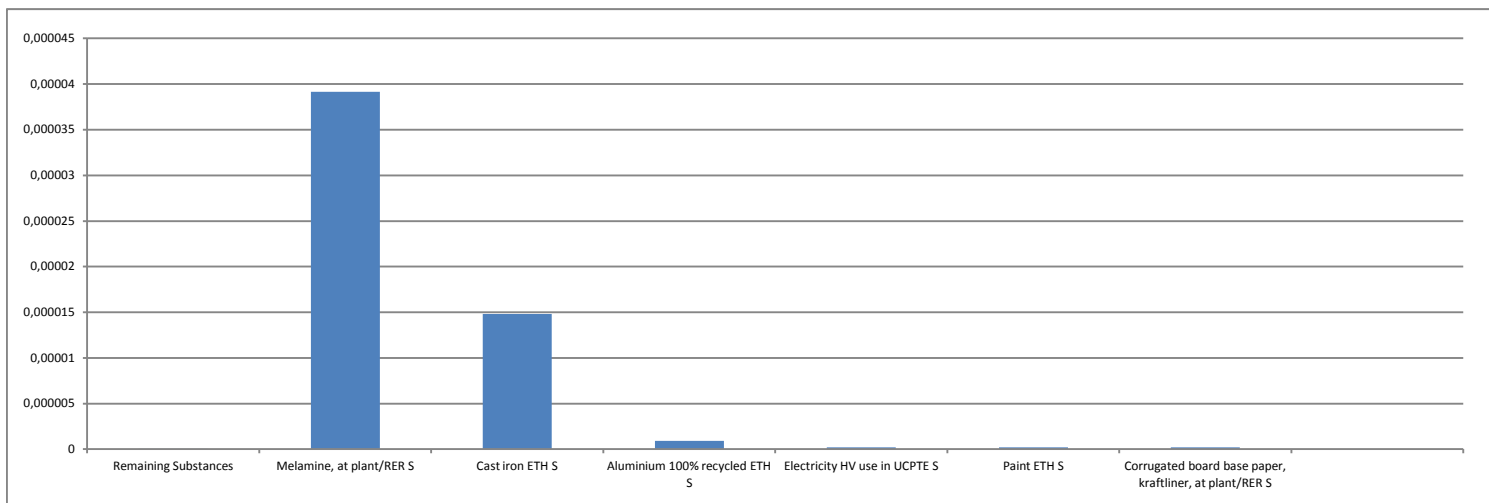
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## 4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	Remaining Substances	kg CFC-11 eq	4,16784E-08
	Methane, bromochlorodifluoro-, HFC-1211	kg CFC-11 eq	3,1087E-05
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	2,2494E-05
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	1,71816E-06
	Methane, tetrachloro-, CFC-11	kg CFC-11 eq	2,19529E-07
	<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>5,55603E-05</b>

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



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining Substances	kg C2H4 eq	0,000782192
	NMVOC, non-methane volatile orga	kg C2H4 eq	0,10283052
	Hydrocarbons, unspecified	kg C2H4 eq	0,018777941
	Sulfur dioxide	kg C2H4 eq	0,018084275
	Sulfur oxides	kg C2H4 eq	0,011446557
	Carbon monoxide, fossil	kg C2H4 eq	0,009096056
	<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>0,178267243</b>

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Remaining Substances	MJ eq	5,919135312
	Gas, natural, in ground	MJ eq	2600,397107
	Oil, crude, in ground	MJ eq	805,1250972
	Coal, 18 MJ per kg, in ground	MJ eq	282,7446212
	Uranium, in ground	MJ eq	258,6983252
	Coal, hard, unspecified, in ground	MJ eq	191,8990061
	<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>4769,796541</b>

WASTE	Total NO HAZARDOUS	KG	16,7
	Total HAZARDOUS	KG	0,0366

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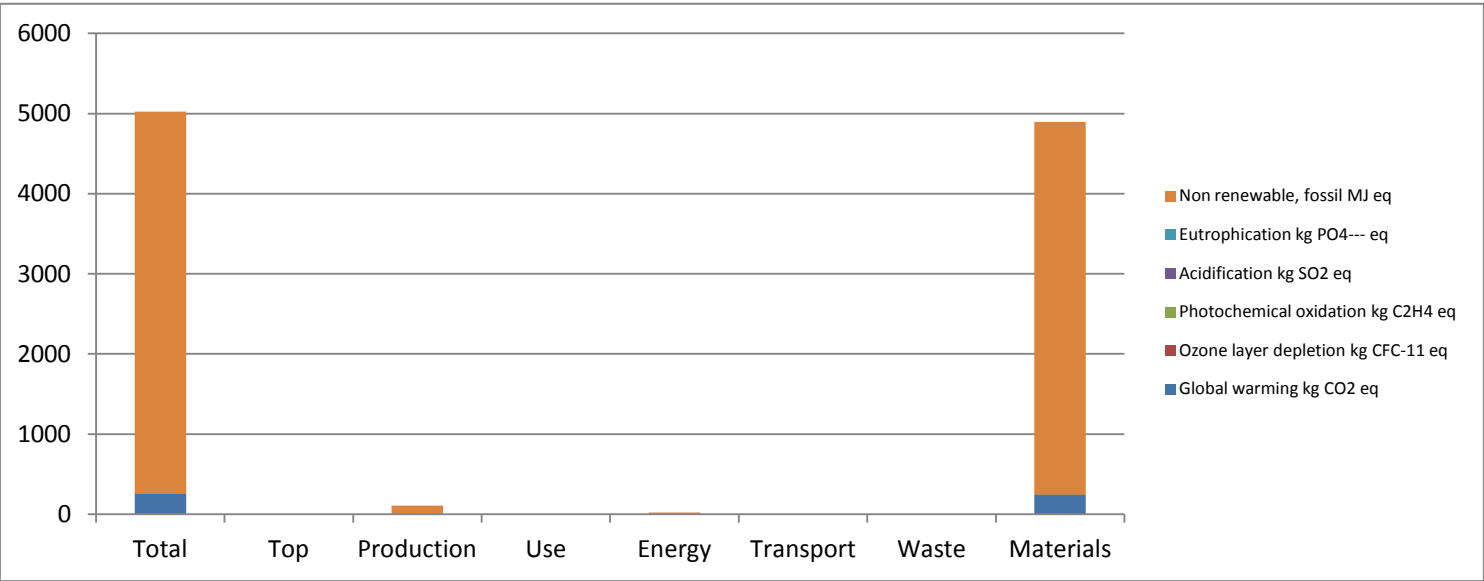
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming	kg CO2 eq	254,2251	0	6,788506	0	0,964935	0,149	0	246,3
Ozone layer depletion	kg CFC-11 eq	0,0000556	0	0	0	0,000000219	1E-09	0	6E-05
Photochemical oxidation	kg C2H4 eq	0,178267	0	0,012626	0	0,000765	2E-04	0	0,165
Acidification	kg SO2 eq	1,208584	0	0,108994	0	0,006338	0,002	0	1,092
Eutrophication	kg PO4--- eq	0,163586	0	0,001085	0	0,000249	4E-04	0	0,162
Non renewable, fossil	MJ eq	4769,797	0	100,065	0	23,31208	0,024	0	4646





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## 6. Ecodesign improvements considered.

ACTIU products are designed considering different environmental strategies. According to their level of complexitiy, 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 67% recycled materials
	100% recycled aluminium
	Powder paint with no VOC amissions
	Limitation on use of hazardous substances. Whithout chromium, mercury, cadmium
	Board from recycled Wood fibers
	Adhesives for thickness table set without VOC contents.
	Sustainable E1 Woods according to EN 13986 / low emissions that do not emit formaldehyde.
Optimization of product techniques	Recycled cardboard packaging
	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 diferent models.
	Long life guarantees
	Adaptability and growth facilities.
	Replacement parts possibilities.
Optimization of the end of system life	Easy Maintenace
	Easy separation of product components
	High degree of recyclability of the product: 95%
	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. Life cycle 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.