

# 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 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
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>		
<b>% recycled materials</b>		<b>67,44%</b>		
<b>% recyclable materials</b>		<b>95,43%</b>		

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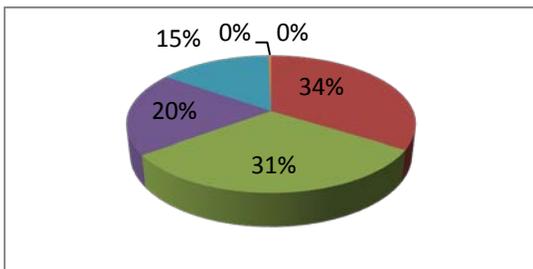
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### 3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

#### Impact category

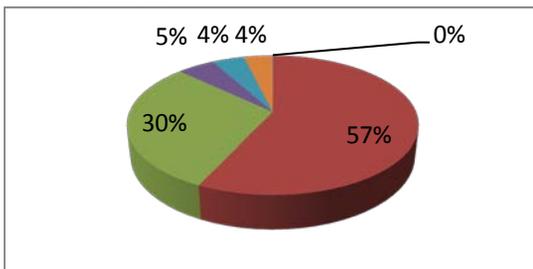
#### ACIDIFICATION



Substance	Unit	Total
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
<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>1,208583865</b>

#### Impact category

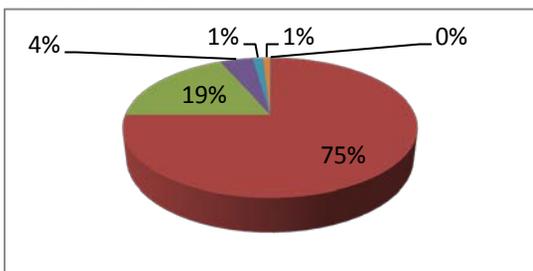
#### EUTROFIZATION



Substance	Unit	Total
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
<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>0,163586455</b>

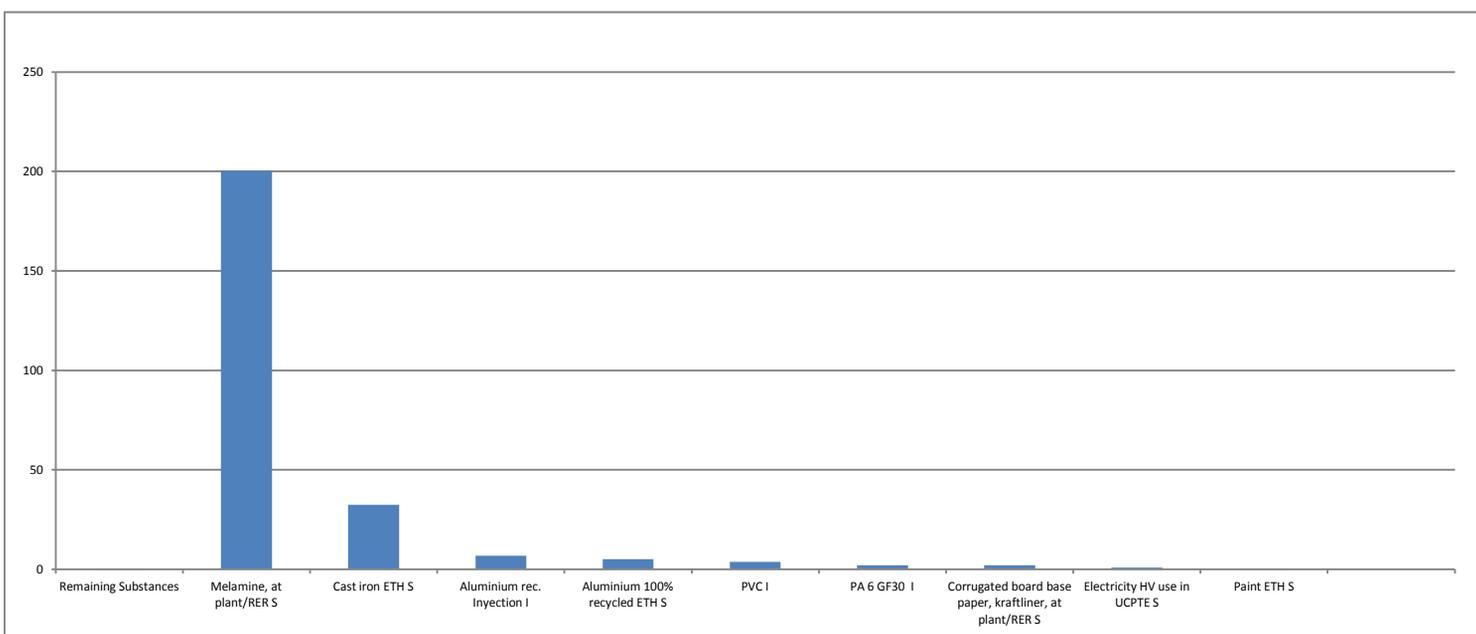
#### Impact category

#### GLOBAL WARMING



Substance	Unit	Total
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
<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>254,2251107</b>

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



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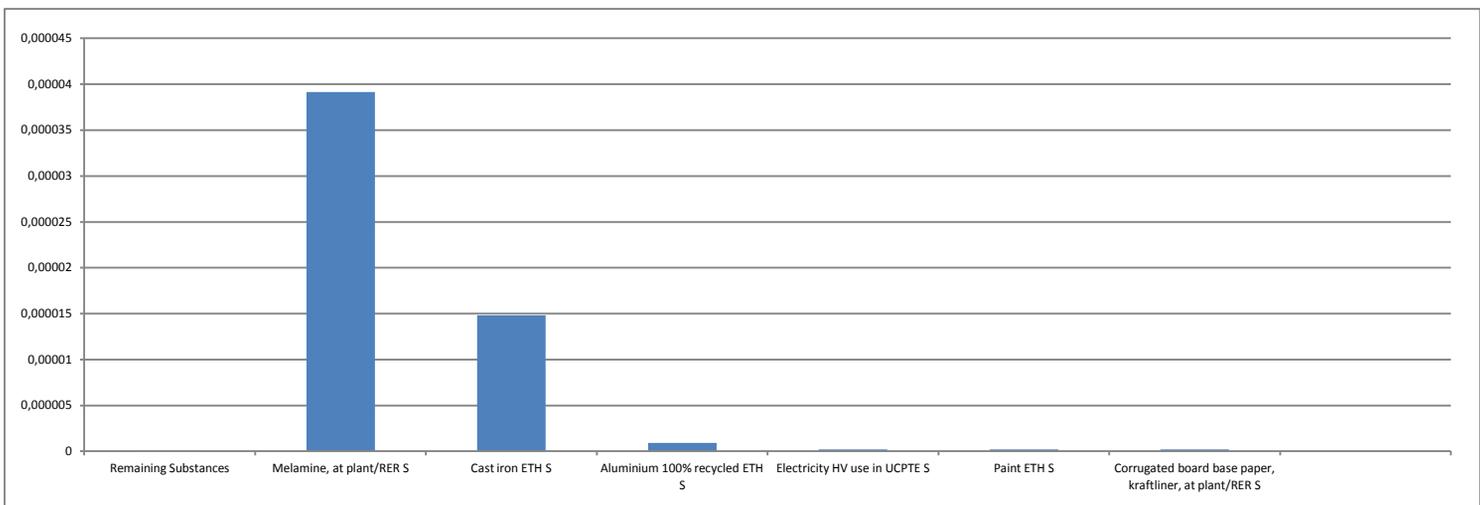
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## 4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
<b>REDUCING OZONE</b>	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>

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



Impact category	Substance	Unit	Total
<b>PHOTOCHEMICAL SMOG</b>	Remaining Substances	kg C2H4 eq	0,000782192
	NMVOOC, 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
<b>NON-RENEWABLE RESOURCES</b>	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>WASTE</b>	Total NO HAZARDOUS	KG	16,7
	Total HAZARDOUS	KG	0,0366

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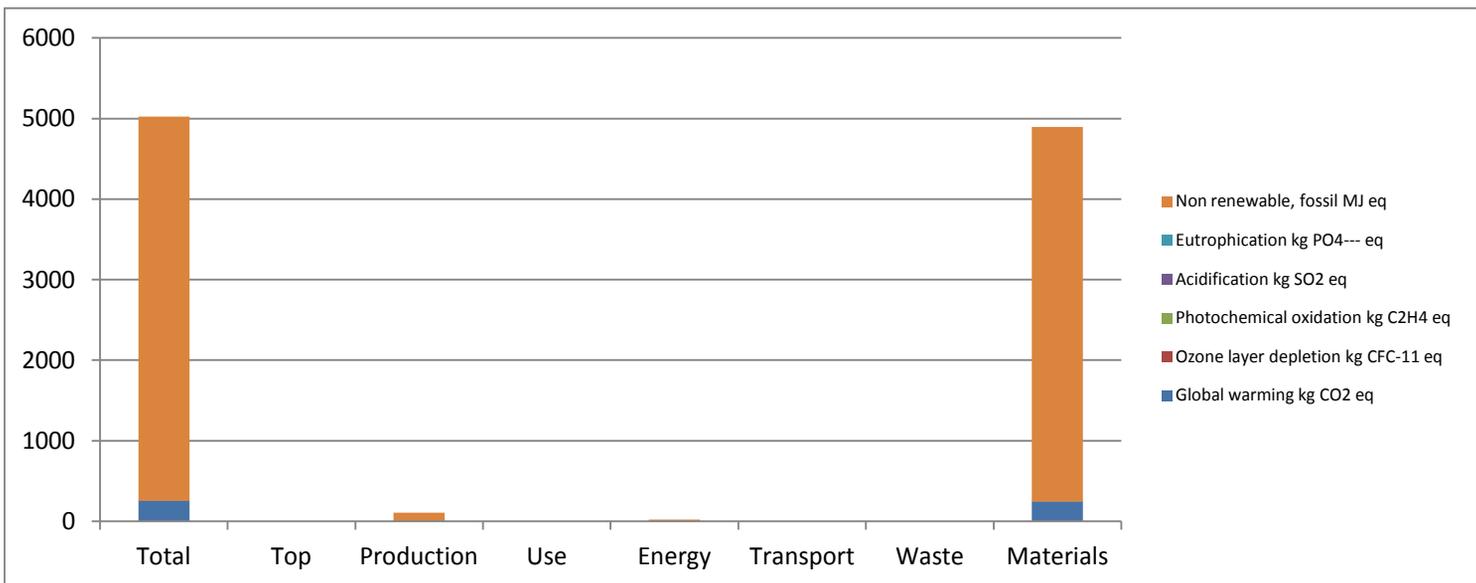
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**5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.**

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 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
<b>Low impact materials selection</b>	<ul style="list-style-type: none"> <li>Designed to be manufactured with 67% recycled materials</li> <li>100% recycled aluminium</li> <li>Powder paint with no VOC emissions</li> <li>Limitation on use of hazardous substances. Without chromium, mercury, cadmium</li> <li>Board from recycled Wood fibers</li> <li>Adhesives for thickness table set without VOC contents.</li> <li>Sustainable E1 Woods according to EN 13986 / low emissions that do not emit formaldehyde.</li> <li>Recycled cardboard packaging</li> </ul>
<b>Optimization of product techniques</b>	<ul style="list-style-type: none"> <li>Optimizing energy use throughout the production process</li> <li>Low manufacturing energy consumption. Minimum environmental impact.</li> <li>Painting processes of high technology systems.</li> <li>Recovery unused paint in the process. Zero emissions of VOCs.</li> <li>Closed water circuits. Heat recovery.</li> <li>Automated manufacturing systems. Planning the cutting process.</li> </ul>
<b>Optimization of distribution system</b>	<ul style="list-style-type: none"> <li>Reducing energy. Removable systems. Low volume packaging. Spaces optimization.</li> <li>Saving energy and Flexibility. Modular system adaptable between different models.</li> </ul>
<b>Optimization of product life</b>	<ul style="list-style-type: none"> <li>Long life guarantees</li> <li>Adaptability and growth facilities.</li> <li>Replacement parts possibilities.</li> <li>Easy Maintenance</li> </ul>
<b>Optimization of the end of system life</b>	<ul style="list-style-type: none"> <li>Easy separation of product components</li> <li>High degree of recyclability of the product: 95%</li> <li>Packaging reuse system between ACTIU and its providers to avoid waste generation</li> </ul>

### 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.