

# EPD Environmental Product Declaration

## MOBILITY STEP

Ref. MP674000

Report Data 30.12.2015

### 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 2015

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

Including the extraction and processing of raw materials and component sourcing to its delivery at the Actiu Technological Park.

#### Production

Consider the production and assembly processes used in Actiu.

#### Transport

Includes from the Actiu Technological Park to our customers facilities. Transport is provided through light commercial transport.

#### Use

This stage has not environmentally relevance for life cycle analysis.

#### End of life

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
Aluminium 100% rec.	19,356	34,75%	Bibliographic data	Bibliographic data
Acero	3,307	5,94%	Bibliographic data	Bibliographic data
Paperboard	3,234256	5,81%	Bibliographic data	Bibliographic data
Other	0	0,00%	Bibliographic data	Bibliographic data
<b>TOTAL</b>	<b>25,897256</b>	<b>46,49%</b>		
<b>% recycled materials</b>		<b>66,60%</b>		
<b>% recyclable materials</b>		<b>93,48%</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 ISO 14006 "Ecodesign".

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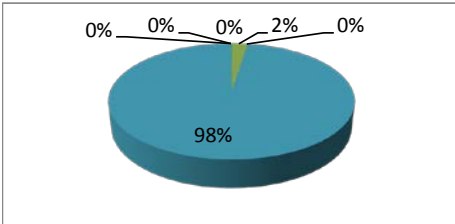
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### 3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

#### Impact category

##### ACIDIFICATION

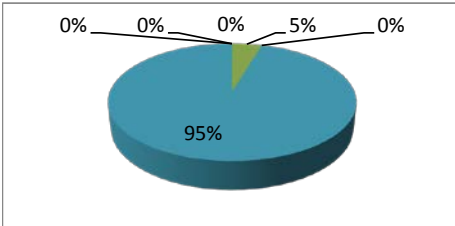


Substance	Unit	Total
Substancias remanentes	kg SO2 eq	0
Ammonia	kg SO2 eq	0,000142309
Nitrogen dioxide	kg SO2 eq	0,01801644
Nitrogen oxides	kg SO2 eq	0
Sulfur dioxide	kg SO2 eq	0,707667529

**TOTAL** **kg SO2 eq** **0,4045404**

#### Impact category

##### EUTROFIZATION

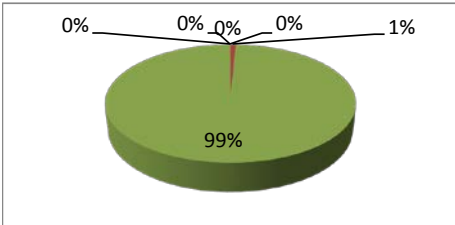


Substance	Unit	Total
Substancias remanentes	kg P04--- eq	0
Ammonia	kg P04--- eq	5,32366E-06
Dinitrogen monoxide	kg P04--- eq	0,005395503
Nitrogen dioxide	kg P04--- eq	0
Nitrogen oxides	kg P04--- eq	0,110487302
Ammonium, ion	kg P04--- eq	4,1392E-262

**TOTAL** **kg SO2 eq** **0,004026048**

#### Impact category

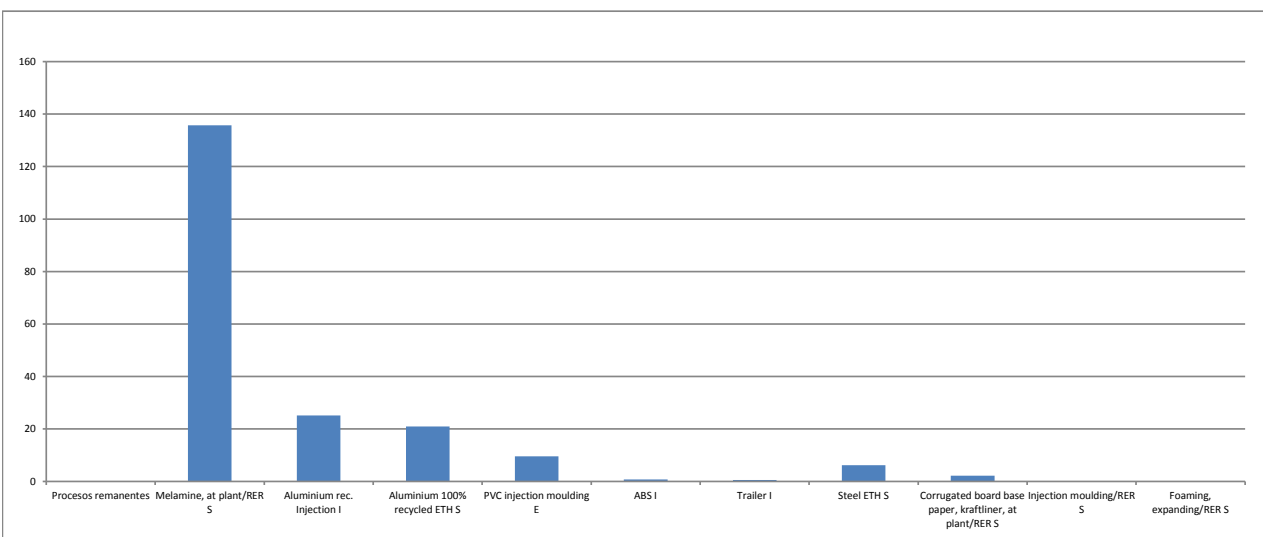
##### GLOBAL WARMING



Substance	Unit	Total
Substancias remanentes	kg CO2 eq	0
Carbon dioxide	kg CO2 eq	0,021891509
Carbon dioxide, fossil	kg CO2 eq	2,770013985
Carbon monoxide	kg CO2 eq	0
Dinitrogen monoxide	kg CO2 eq	4,1392E-262
Methane	kg CO2 eq	0

**TOTAL** **kg SO2 eq** **25,19622781**

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



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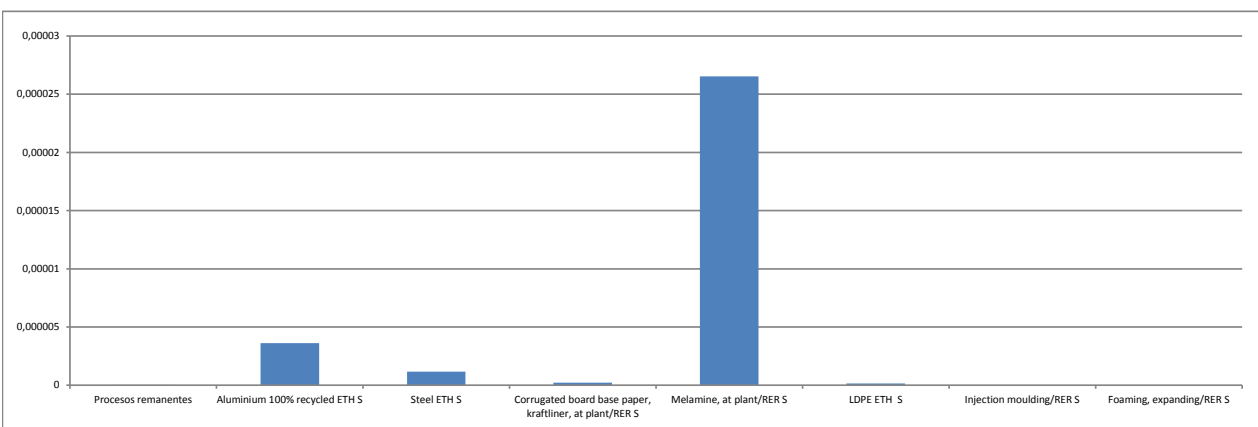
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### 4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	Substancias remanentes	kg CFC-11 eq	0
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	5,04073E-09
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	2,26695E-07
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	0
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	3,14536E-05
	<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>0</b>

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



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Substancias remanentes	kg C2H4 eq	0
	Carbon monoxide	kg C2H4 eq	0
	Carbon monoxide, fossil	kg C2H4 eq	4,1392E-262
	Ethane	kg C2H4 eq	0
	Ethene	kg C2H4 eq	0
	Hydrocarbons, unspecified	kg C2H4 eq	0
<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>0,046860876</b>	

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substancias remanentes	MJ eq	0
	Coal, 18 MJ per kg, in ground	MJ eq	0,486643475
	Coal, 29.3 MJ per kg, in ground	MJ eq	46,05881216
	Coal, brown, 10 MJ per kg, in ground	MJ eq	0
	Coal, brown, 8 MJ per kg, in ground	MJ eq	0
	Coal, brown, in ground	MJ eq	3423,28703
<b>TOTAL</b>	<b>kg SO2 eq</b>	<b>334,4408829</b>	

WASTE	Total NO HAZARDOUS	KG	15,1
	Total HAZARDOUS	KG	0,0833

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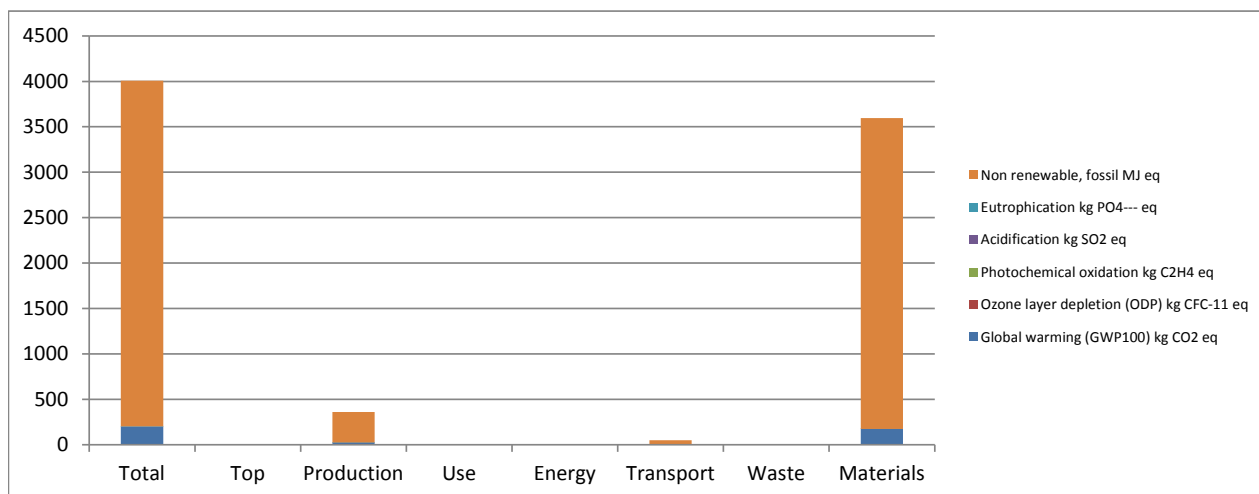
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### 5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	201,215925	0	25,19622781	0	0,021891509	2,77	0	173,2
Ozone layer depletion (ODP)	kg CFC-11 eq	3,16854E-05	0	0	0	5,04073E-09	2E-07	0	3E-05
Photochemical oxidation	kg C2H4 eq	0,144338639	0	0,046860876	0	1,64409E-05	0,003	0	0,094
Acidification	kg SO2 eq	1,130366678	0	0,4045404	0	0,000142309	0,018	0	0,708
Eutrophication	kg PO4--- eq	0,119914177	0	0,004026048	0	5,32366E-06	0,005	0	0,11
Non renewable, fossil	MJ eq	3804,273369	0	334,4408829	0	0,486643475	46,06	0	3423



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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	Designed to be manufactured with 43% recycled materials
	100% recycled aluminium
	Powder paint with no VOC emissions
	Limitation on use of hazardous substances. Without chromium, mercury, cadmium
	Board from recycled Wood fibers
	Adhesives for thickness table set without VOC contents.
Optimization of product techniques	Sustainable E1 Woods according to EN 13986 / low emissions that do not emit formaldehyde.
	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.
Optimization of distribution system	Closed water circuits. Heat recovery.
	Automated manufacturing systems. Planning the cutting process.
Optimization of product life	Reducing energy. Removable systems. Low volume packaging. Spaces optimization.
	Saving energy and Flexibility. Modular system adaptable between different models.
	Long life guarantees
	Adaptability and growth facilities.
Optimization of the end of system life	Replacement parts possibilities.
	Easy Maintenance
	Easy separation of product components
	High degree of recyclability of the product: 93%
	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.