

EPD Environmental Product Declaration

LINK SCREEN

Ref. LK17118M14

Report Data 20.05.2015

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 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
Coarrugated Board	2,636	8,12%	Bibliographic data	Bibliographic data
Aluminium	0,132	0,41%	Bibliographic data	Bibliographic data
Steel	2,456	7,57%	Bibliographic data	Bibliographic data
Plastic	0,921	2,84%	Bibliographic data	Bibliographic data
Wood	25,836	79,62%	Bibliographic data	Bibliographic data
Others	0,47	1,45%	Bibliographic data	Bibliographic data
TOTAL	32,451	100,00%		
% recycled materials		72,22%		
% recyclable materials		95,71%		

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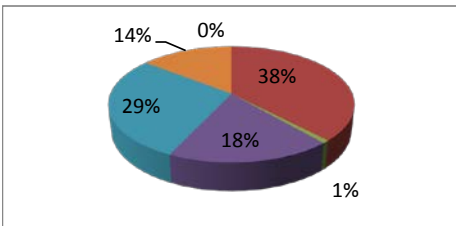
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category

ACIDIFICATION

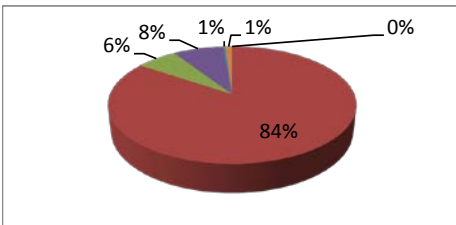


Substance	Unit	Total
Substancias remanentes	kg SO2 eq	1,11022E-16
Ammonia	kg SO2 eq	0,273505416
Nitrogen dioxide	kg SO2 eq	0,0055836
Nitrogen oxides	kg SO2 eq	0,13241116
Sulfur dioxide	kg SO2 eq	0,206038722
Sulfur oxides	kg SO2 eq	0,104461081

TOTAL **kg SO2 eq** **0,721999979**

Impact category

EUTROFIZATION

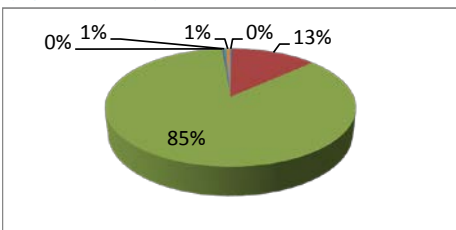


Substance	Unit	Total
Substancias remanentes	kg PO4--- eq	6,0867E-05
Ammonia	kg PO4--- eq	0,05982931
Ammonium, ion	kg PO4--- eq	0,004484648
COD, Chemical Oxygen Demand	kg PO4--- eq	0,005585277
Dinitrogen monoxide	kg PO4--- eq	0,000269527
Nitrate	kg PO4--- eq	0,00071165

TOTAL **kg SO2 eq** **0,114151833**

Impact category

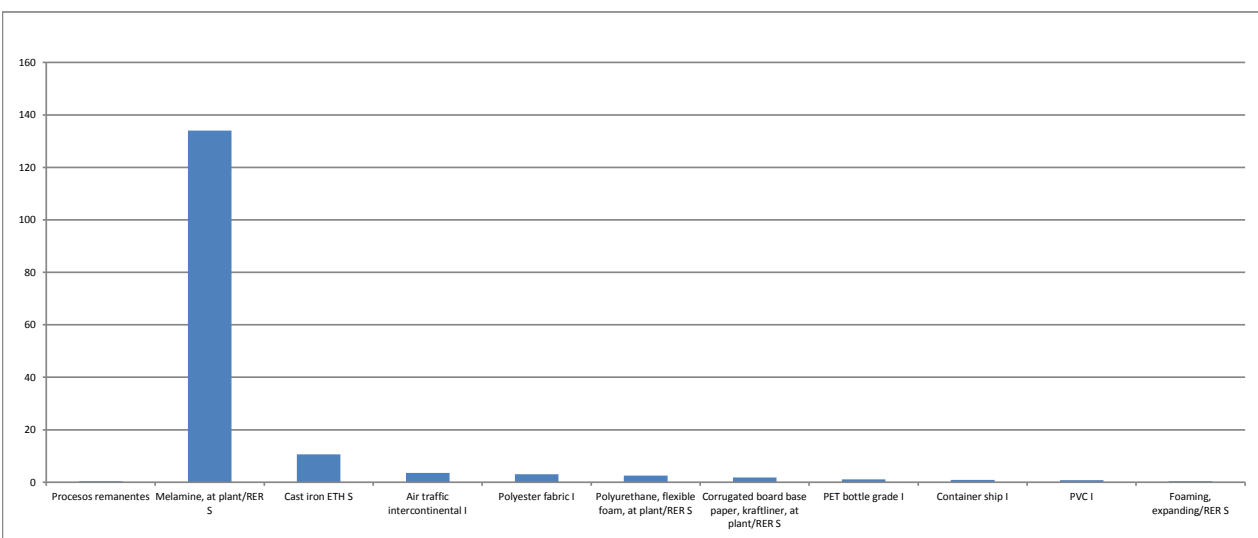
GLOBAL WARMING



Substance	Unit	Total
Substancias remanentes	kg CO2 eq	0,3899858
Carbon dioxide	kg CO2 eq	19,9138414
Carbon dioxide, fossil	kg CO2 eq	129,7620325
Carbon monoxide, fossil	kg CO2 eq	0,359795193
Dinitrogen monoxide	kg CO2 eq	0,613693261
Methane	kg CO2 eq	1,034047805

TOTAL **kg SO2 eq** **159,8241103**

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



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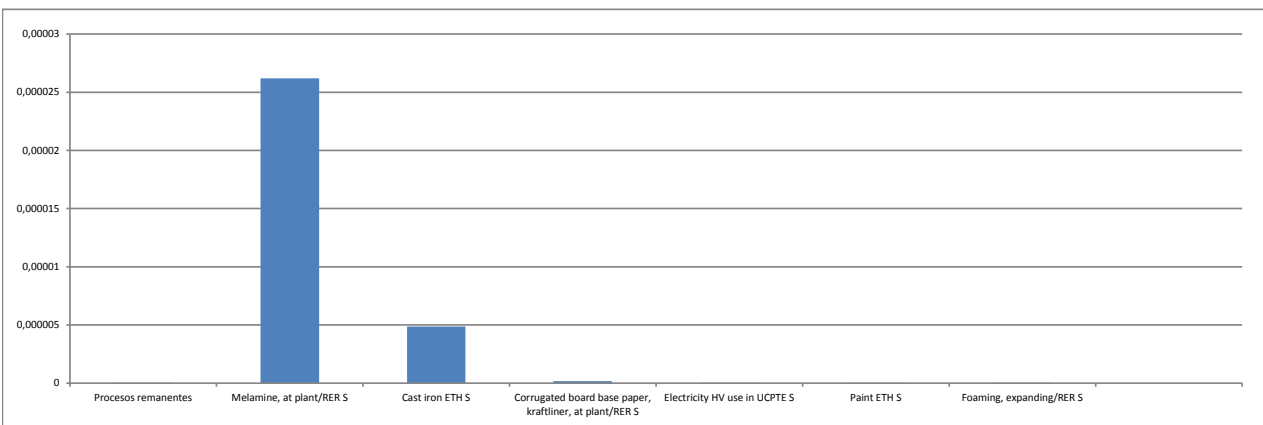
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	Substancias remanentes	kg CFC-11 eq	1,12359E-08
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	2,08347E-05
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	9,31834E-06
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	1,15148E-06
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	9,49418E-08
	0	0	0
	TOTAL	kg SO2 eq	3,14107E-05

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



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Substancias remanentes	kg C2H4 eq	0,000490199
	Benzene	kg C2H4 eq	0,000179237
	Butane	kg C2H4 eq	0,000778724
	Carbon monoxide	kg C2H4 eq	0,002403206
	Carbon monoxide, biogenic	kg C2H4 eq	0,00017864
	Carbon monoxide, fossil	kg C2H4 eq	0,006187561
	TOTAL	kg SO2 eq	0,107330854

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substancias remanentes	MJ eq	13,00848672
	Coal, 18 MJ per kg, in ground	MJ eq	88,67284033
	Coal, 29.3 MJ per kg, in ground	MJ eq	3,495051695
	Coal, brown, 8 MJ per kg, in ground	MJ eq	3,201734879
	Coal, brown, in ground	MJ eq	76,07349547
	Coal, hard, unspecified, in ground	MJ eq	133,9728991
	TOTAL	kg SO2 eq	3017,103136

WASTE	Total NO HAZARDOUS	KG	10,5
	Total HAZARDOUS	KG	0,0388

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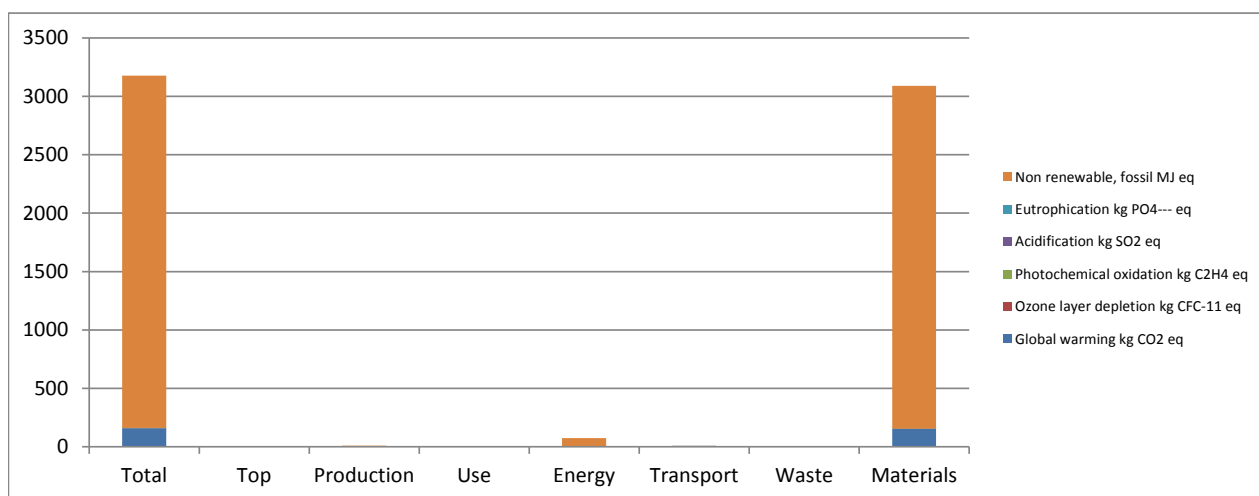
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
#REF!	kg CO2 eq	159,8241103	0	0,372560098	0	0,631634813	4,713	0	154,1
#REF!	kg CFC-11 eq	3,14107E-05	0	3,63017E-08	0	4,96543E-08	2E-09	0	3E-05
#REF!	kg C2H4 eq	0,107330854	0	0,003418853	0	0,001631874	0,003	0	0,099
#REF!	kg SO2 eq	0,721999979	0	0,001667308	0	0,005759103	0,032	0	0,683
#REF!	kg PO4--- eq	0,114151833	0	9,42938E-05	0	0,000599593	0,004	0	0,109
#REF!	MJ eq	3017,103136	0	8,845942421	0	73,83285713	0,029	0	2934



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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 72% 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: 96%
	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.

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