

EPD_Environmental Product Declaration

Table_VitalPlus300

Ref_V830100T

Report Data 05.04.2018

Certificates

ISO 9001:2008

ISO 14001:2004

ISO 14006. Ecodesign

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 2017

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 for the final product.

	KG of product solution	Percentage %	Quality of finishes	
			Production of raw materials	Processed
Aluminum 100% rec.	2,895	3,04%	Bibliographic data	Bibliographic data
Steel (SIMAPRO HAI)	19,251	20,22%	Bibliographic data	Bibliographic data
Coarrugated Board	10,080	10,59%	Bibliographic data	Bibliographic data
Melamine board	58,461	61,41%	Bibliographic data	Bibliographic data
Plastic PS	3,966	4,17%	Bibliographic data	Bibliographic data
TOTAL	94,653	99,43%		
% recicled materials		53,03%		
% reciclable materials		95,27%		

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 identificacion 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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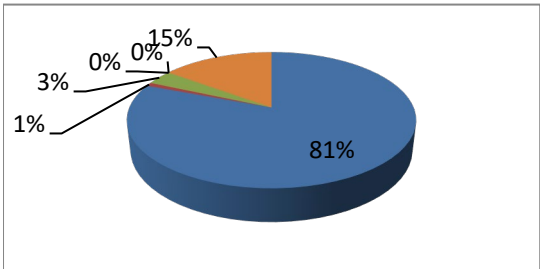
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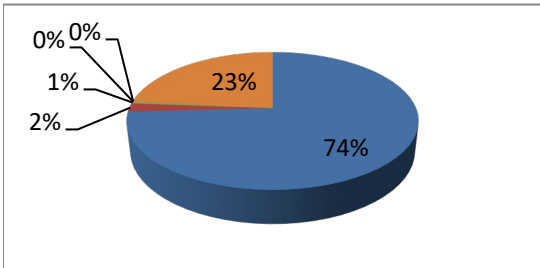
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3. Impactos Producidos por Categoría. Se incluyen las cinco sustancias de cada categoría que más impacto tienen en cada una de ellas

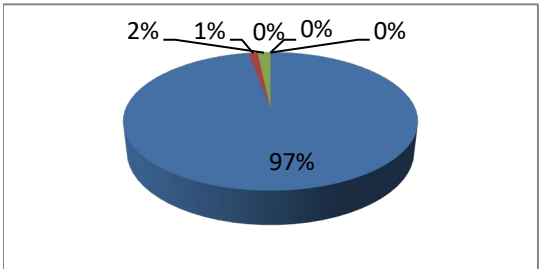
Impact category	Substance	Unit	Total
ACIDIFICATION	Substancias remanentes	kg SO2 eq	3,340646759
	Ammonia	kg SO2 eq	0,034275016
	Nitrogen dioxide	kg SO2 eq	0,1439739
	Nitrogen oxides	kg SO2 eq	1,3925E-262
	Sulfur dioxide	kg SO2 eq	1,63152E-09
	Sulfur oxides	kg SO2 eq	0,617829754
	TOTAL	kg SO2 eq	1,86715E-06



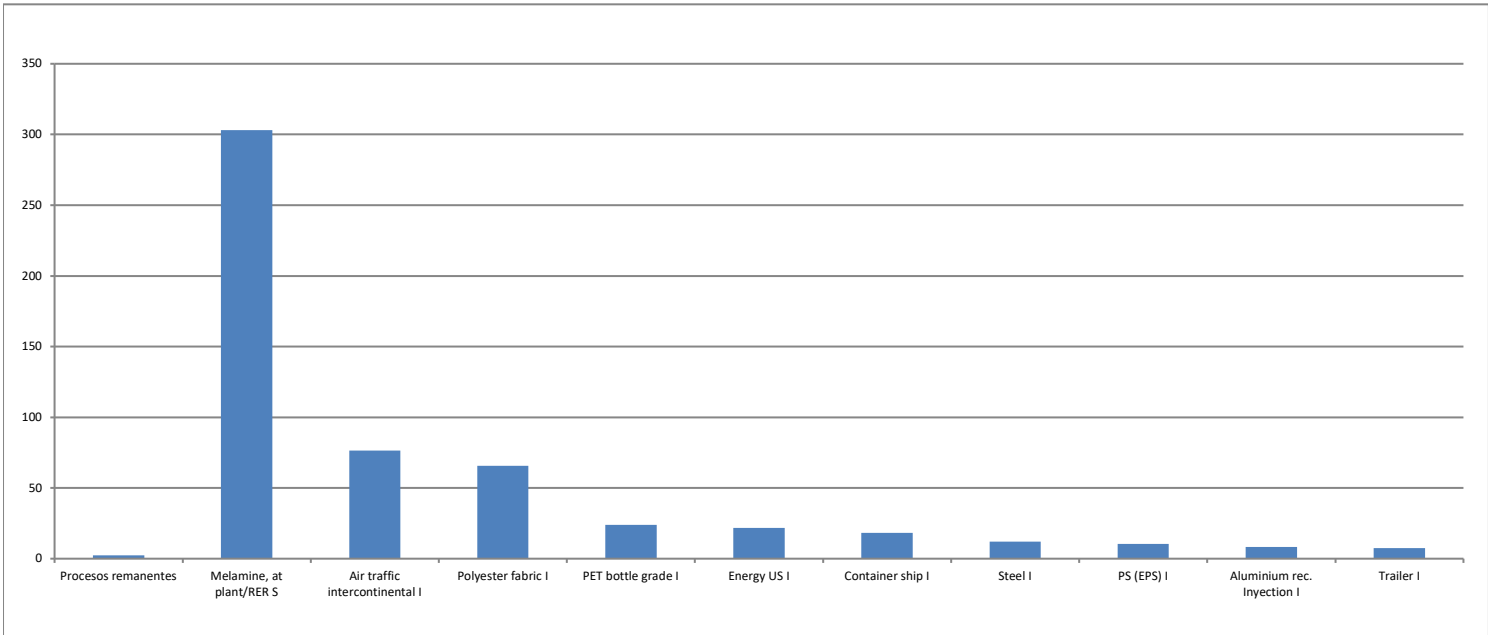
Impact category	Substance	Unit	Total
EUTROFIZATION	Substancias remanentes	kg PO4--- eq	0,429367338
	Ammonia	kg PO4--- eq	0,011837271
	Dinitrogen monoxide	kg PO4--- eq	0,002661701
	Nitrogen dioxide	kg PO4--- eq	1,3925E-262
	COD, Chemical Oxygen Demand	kg PO4--- eq	0,000188543
	Ammonium, ion	kg PO4--- eq	0,135150259
	TOTAL	kg S02 eq	8,78277E-08



Impact category	Substance	Unit	Total
GLOBAL WARMING	Substancias remanentes	kg CO2 eq	561,5037899
	Carbon dioxide	kg CO2 eq	6,762643293
	Carbon dioxide, fossil	kg CO2 eq	9,822879746
	Carbon monoxide	kg CO2 eq	1,3925E-262
	0	0	0
	0	0	0
	TOTAL	kg CO2 eq	0,000252223



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



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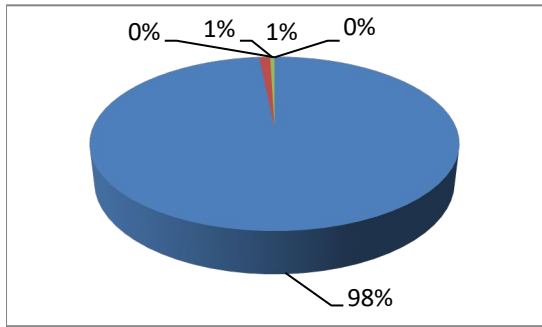
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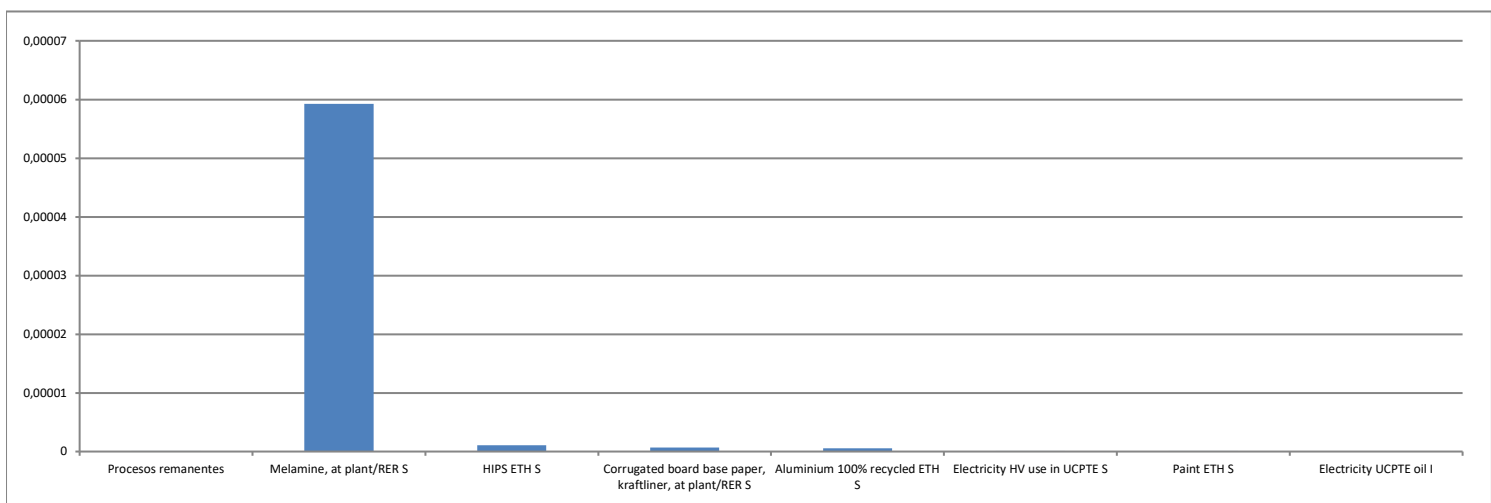
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

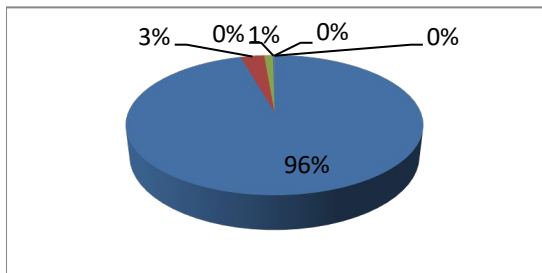
Impact category	Substance	Unit	Total
REDUCCIÓN CAPA DE OZONO	Substancias remanentes	kg CFC-11 eq	6,1013E-05
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	7,05518E-07
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	2,81987E-07
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	1,3925E-262
		0	0
		0	0
	TOTAL	kg SO2 eq	3,44804E-10



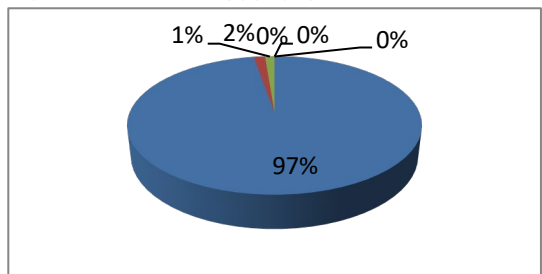
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Substancias remanentes	kg C2H4 eq	0,536213005
	Carbon monoxide	kg C2H4 eq	0,017256003
	Butane	kg C2H4 eq	0,00641928
	Toluene	kg C2H4 eq	0,000578134
	NMVO C, non-methane volatile orga	kg C2H4 eq	0,000522221
	Pentane	kg C2H4 eq	9,93529E-06
	TOTAL	kg SO2 eq	1,25924E-06



Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substancias remanentes	MJ eq	9313,566943
	Coal, 29.3 MJ per kg, in ground	MJ eq	142,6676765
	Coal, 18 MJ per kg, in ground	MJ eq	118,5695645
	Gas, natural, in ground	MJ eq	1,3925E-262
	Coal, brown, in ground	MJ eq	1,3925E-262
	Uranium ore, 1.11 GJ per kg, in gro	MJ eq	1,3925E-262
	TOTAL	kg SO2 eq	0,006446808



WASTE	Total NO HAZARDOUS	KG	25,9
	Total HAZARDOUS	KG	0,173

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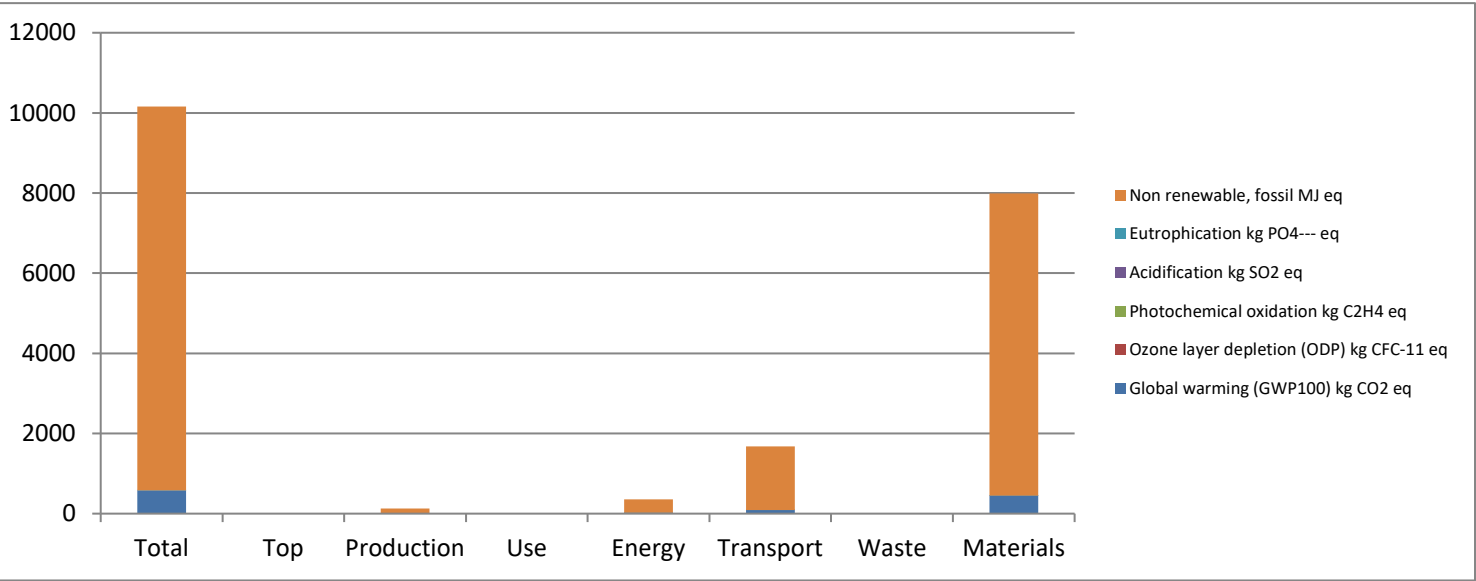
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	578,0895651	0	8,575527159	0	25,35586771	93,17	0	451
Ozone layer depletion (ODP)	kg CFC-11 eq	6,20008E-05	0	1,15939E-07	0	2,22317E-07	3E-10	0	6E-05
Photochemical oxidation	kg C2H4 eq	0,559889547	0	0,015823982	0	0,006968953	0,076	0	0,461
Acidification	kg SO2 eq	3,518897543	0	0,135530701	0	0,108763429	0,331	0	2,944
Eutrophication	kg PO4--- eq	0,443866398	0	0,00139548	0	0,006733197	0,065	0	0,371
Non renewable, fossil	MJ eq	9574,810631	0	120,2388726	0	335,2627768	1583	0	7536



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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 ECODESIGN STRATEGY	CHOICES CHOSEN WITH THE PRODUCT
Low impact materials selection	Designed to be manufactured with 53,03% recycled materials
	100% recycled aluminium
	Powder paint with no VOC amissions
	Limitation on use of hazardous substances. Without chromium, mercury, cadmium
	Recycled cardboard packaging
Optimization of product techniques	Optimizing energy use throughout the production process
	Painting processes of high technology systems.
	Recovery unused paint in the process. Zero emissions of VOCs.
	Recovery of paint not used in the process for reuse
	Metal cleaning by closed water circuit
Optimization of distribution system	Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems to save energy
	Reducing energy. Removable systems. Low volume packaging. Spaces optimization.
	Saving energy and Flexibility. Modular system adaptable between diferent models.
Optimization of product life	15 years minimum duration product
	Easy maintenance and cleaning of the product. It is easily cleaned with a damp cloth with water.
	The product is part of a modular program. Easy to modify, extend and repair to optimize its useful life.
Optimization of the end of system life	Easy separation of product components
	High degree of recyclability of the product: 95,27%
	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".
UNE - EN ISO 14006: 2011 "Environmental management systems. Guidelines for the incorporation of ecodesign "
Environmental impacts methods
Data base: ETH-ESU System processes, Ecoinvent system processes, IDEMAT, EDIP, IPCC, Ecological Scarcity 2006.