

EPD_Environmental Product Declaration

DESK TALENT S300 _ 120x69 WHITE STRUCTURE

Ref_TL372J0011

Report Data 12.11.2018

Certificates

ISO 9001

ISO 14001

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 2018

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 tight 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
Aluminium 100% rec.	8,331	36,16%	Bibliographic data	Bibliographic data
Steel	0,129	0,56%	Bibliographic data	Bibliographic data
Plastic	1,331	5,78%	Bibliographic data	Bibliographic data
Tablero melamina	12,761	55,39%	Bibliographic data	Bibliographic data
Polyamide	0,137	0,59%	Bibliographic data	Bibliographic data
TOTAL	22,689	98,48%		
% recycled materials		69,87%		
% recyclable materials		97,89%		

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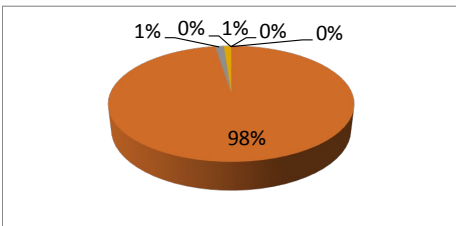
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category

ACIDIFICATION

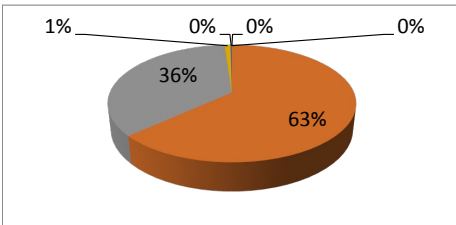


Substance	Unit	Total
Substancias remanentes	kg SO2 eq	0
Sulfur dioxide	kg SO2 eq	0,313101105
Ammonia	kg SO2 eq	0,004393338
Nitrogen dioxide	kg SO2 eq	0,003723768
Sulfur oxides	kg SO2 eq	5,0683E-225
0	0	0

TOTAL **kg SO2 eq** **0,1714427**

Impact category

EUTROFIZATION

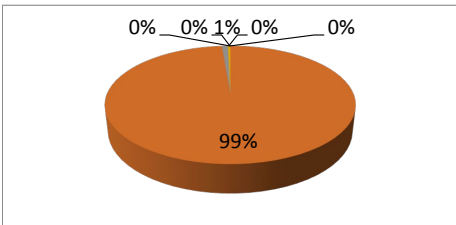


Substance	Unit	Total
Substancias remanentes	kg PO4--- eq	0
Nitrogen dioxide	kg PO4--- eq	0,052658565
Phosphorus	kg PO4--- eq	0,029584203
Dinitrogen monoxide	kg PO4--- eq	0,0007507
Ammonia	kg PO4--- eq	0,000181576
Nitrate	kg PO4--- eq	6,90816E-07

TOTAL **kg SO2 eq** **0,001706224**

Impact category

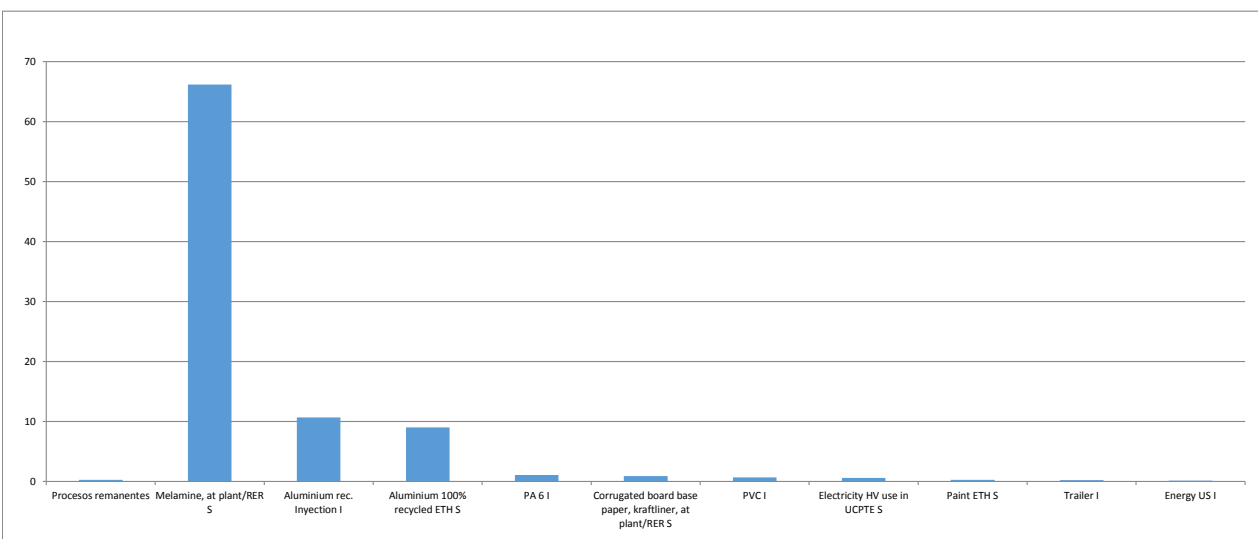
GLOBAL WARMING



Substance	Unit	Total
Substancias remanentes	kg CO2 eq	0
Dinitrogen monoxide	kg CO2 eq	78,26155349
Carbon dioxide	kg CO2 eq	0,731951431
Carbon dioxide, fossil	kg CO2 eq	0,296219519
Methane	kg CO2 eq	5,0683E-225
0	0	0

TOTAL **kg CO2 eq** **10,67806658**

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



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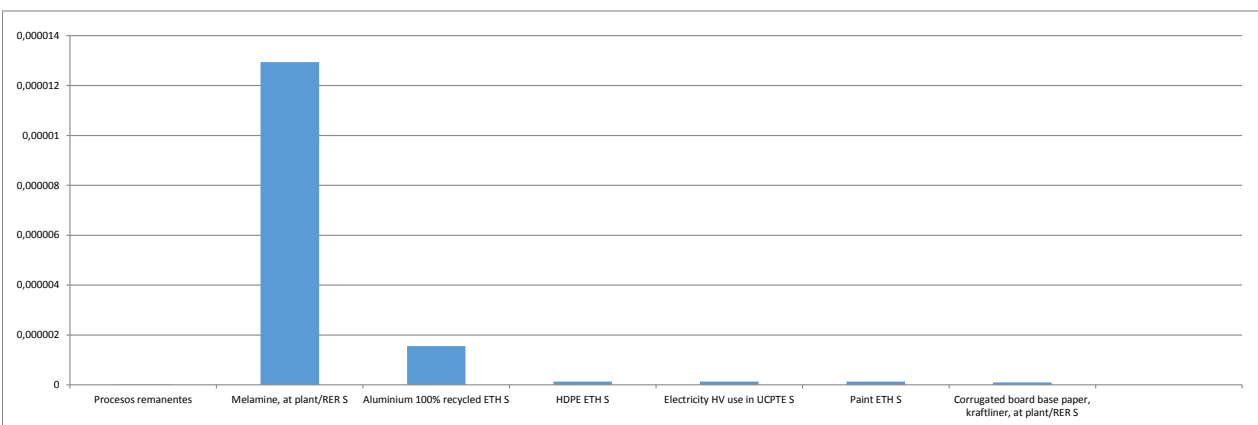
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

Impact category	Substance	Unit	Total
REDUCING OZONE	Substancias remanentes	kg CFC-11 eq	0
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	1,48456E-05
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	1,31516E-07
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	8,50589E-10
	Methane, trichlorofluoro-, CFC-11	kg CFC-11 eq	5,0683E-225
		0	0
		0	0
TOTAL		kg S02 eq	0

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, biogenic	kg C2H4 eq	0,042318085
	Butane	kg C2H4 eq	0,000514667
	Benzene	kg C2H4 eq	0,000470197
	Sulfur dioxide	kg C2H4 eq	0,000113173
	Pentane	kg C2H4 eq	2,87471E-06
TOTAL		kg S02 eq	0,019859463

Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substancias remanentes	MJ eq	0
	Coal, brown, in ground	MJ eq	1505,666226
	Coal, 18 MJ per kg, in ground	MJ eq	14,77470162
	Coal, 29,3 MJ per kg, in ground	MJ eq	4,006979752
	Coal, hard, unspecified, in ground	MJ eq	5,0683E-225
	Oil, crude, in ground	MJ eq	5,0683E-225
TOTAL		kg S02 eq	147,6282141

WASTE

Total NO HAZARDOUS

KG

6,75

Total HAZARDOUS

KG

0,00727

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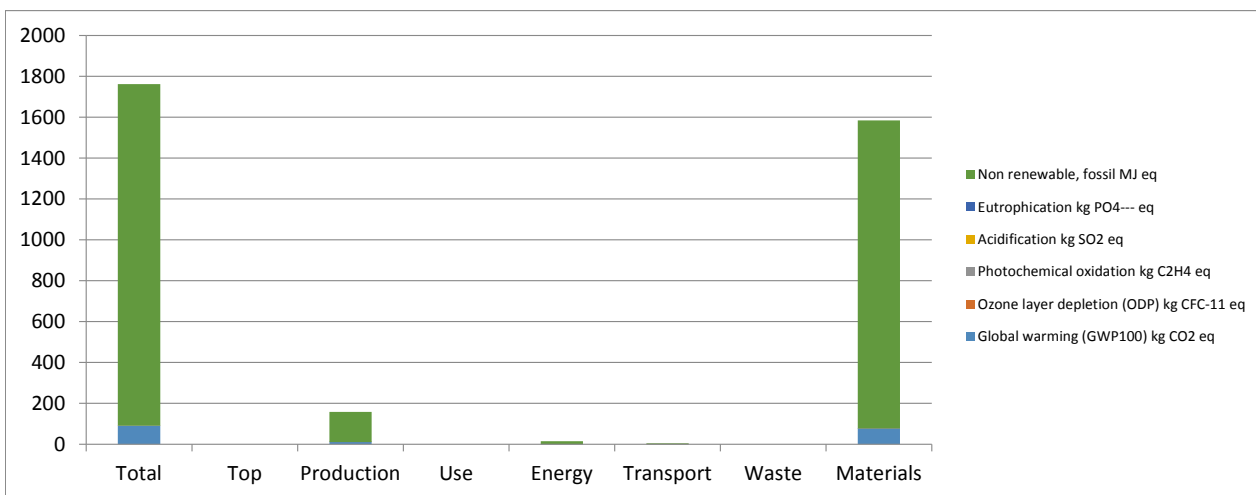
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	89,96779102	0	10,67806658	0	0,731951431	0,296	0	78,26
Ozone layer depletion (ODP)	kg CFC-11 eq	1,4978E-05	0	0	0	1,31516E-07	9E-10	0	1E-05
Photochemical oxidation	kg C2H4 eq	0,063162412	0	0,019859463	0	0,000470197	5E-04	0	0,042
Acidification	kg SO2 eq	0,492660911	0	0,1714427	0	0,004393338	0,004	0	0,313
Eutrophication	kg PO4--- eq	0,055297065	0	0,001706224	0	0,000181576	8E-04	0	0,053
Non renewable, fossil	MJ eq	1672,076121	0	147,6282141	0	14,77470162	4,007	0	1506



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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 69,87% recycled materials
	100% recycled aluminium
	Powder paint with no VOC emissions
	Limitation on use of hazardous substances. Without chromium, mercury, cadmium
Optimization of product techniques	Recycled cardboard packaging
	Optimizing energy use throughout the production process
	Painting processes with the best available techniques
	Recovery unused paint in the process. Zero emissions of VOCs.
	Recovery of paint not used in the process for reuse.
Optimization of distribution system	Metal cleaning by closed water circuit
	Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems to save energy.
	Packing in flat packages for space optimization.
Optimization of product life	Modular system for maximum use and combination of different program models
	15 years minimum duration product
	Easy maintenance and cleaning of the product. It is easily cleaned with a damp cloth with water.
Optimization of the end of system life	The product is part of a modular program. Easy to modify, extend and repair to optimize its useful life.
	Easy separation of product components
	High degree of recyclability of the product: 97,89%
	Packaging reuse system between ACTIU and its providers to avoid waste generation

Bibliography and references

ISO 14025 Environmental labels and declarations – Type III

ISO 14044:2006 "Environmental management. Life cycle analysis. Requirements and guidelines"

UNE - EN ISO 14006:2011 "Environmental management systems. Guidelines for the incorporation of ecodesign"

Methods for calculating environmental impacts

Data base: ETH-ESU System processes, Ecoinvent system processes, IDEMAT, EDIP, IPCC, Ecological Scarcity 2006.