

EPD_Environmental Product Declaration

TABLE REU. POWER S.300 ELEV 140x140 HEIGHT 74-104 WHITE STRUCTURE- MELAMINE

Ref_PV43N00006

Report Data 15.05.2019

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 2019

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 for the final product.

	KG of product solution	Percentage %	Quality of finishes	
			Production of raw materials	Processed
Aluminum 100% rec.	7,324	12,30%	Bibliographic data	Bibliographic data
Steel	23,040	38,69%	Bibliographic data	Bibliographic data
Coarrugated Board	7,228	12,14%	Bibliographic data	Bibliographic data
Melamine board	20,300	34,09%	Bibliographic data	Bibliographic data
Polystyrene	0,437	0,73%	Bibliographic data	Bibliographic data
TOTAL	59,548	100,00%		
% recycled materials		58,67%		
% recyclable materials		97,90%		

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".

EPD Environmental Product Declaration

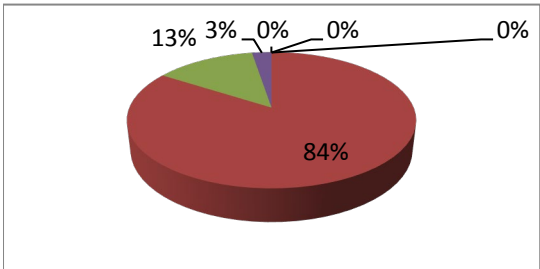
TABLE REU. POWER S.300 ELEV 140x140 HEIGHT 74-104 WHITE STRUCTURE- MELAMINE

Ref_PV43N00006

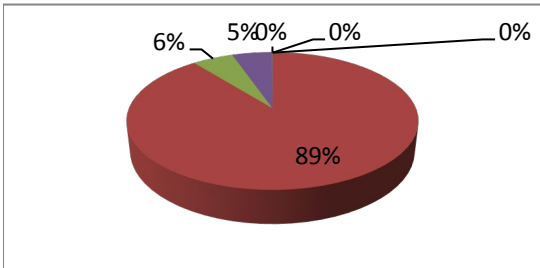
Report Data 15.05.2019

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

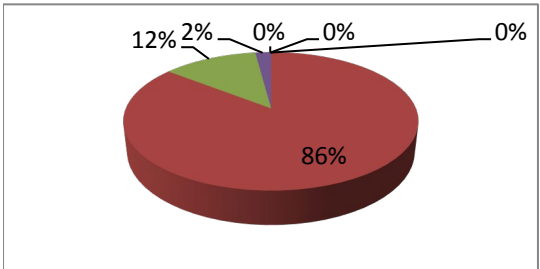
Impact category	Substance	Unit	Total
ACIDIFICATION	Remaining Substances	kg SO2 eq	0
	Sulfur dioxide	kg SO2 eq	0,922742732
	Ammonia	kg SO2 eq	0,146787188
	Nitrogen dioxide	kg SO2 eq	0,028624968
	Sulfur oxides	kg SO2 eq	4,2982E-262
	0	0	0
TOTAL		kg SO2 eq	0,155078



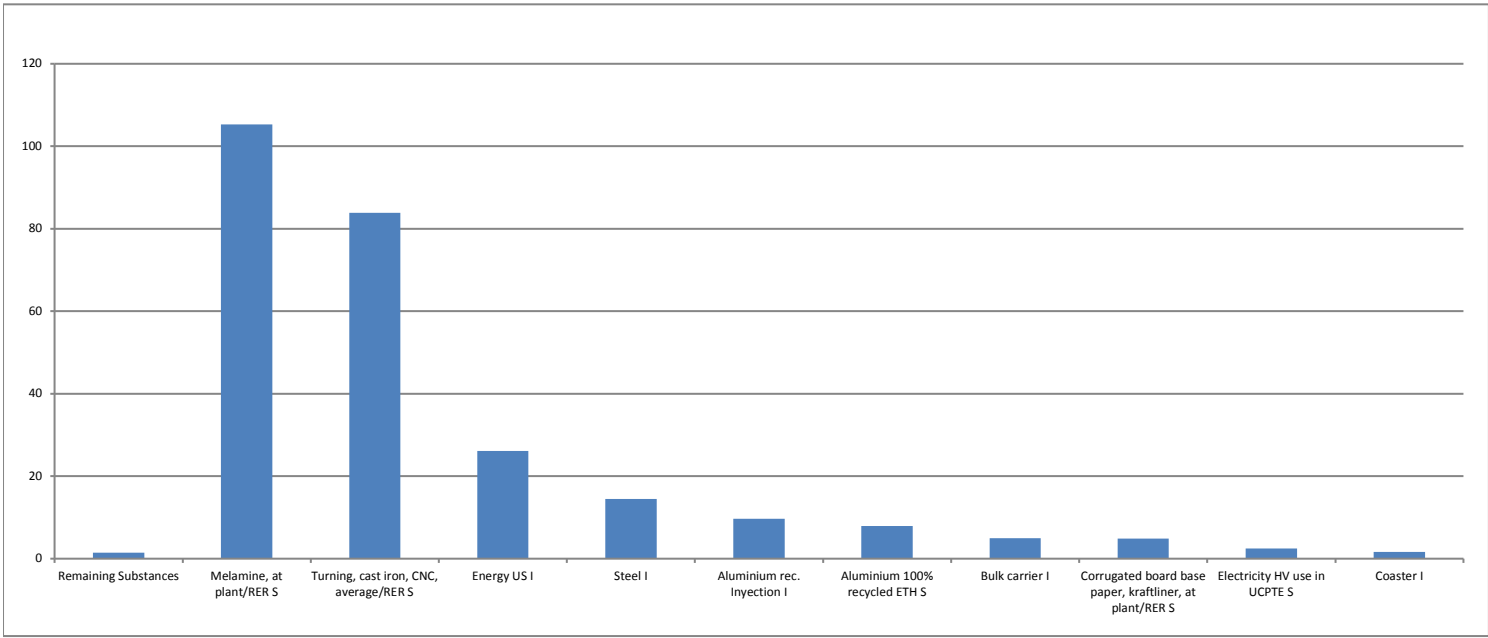
Impact category	Substance	Unit	Total
EUTROFIZATION	Remaining Substances	kg PO4--- eq	0
	Nitrogen oxides	kg PO4--- eq	0,154938488
	Dinitrogen monoxide	kg PO4--- eq	0,009373765
	Ammonia	kg PO4--- eq	0,009170112
	Phosphate	kg PO4--- eq	0,000135198
	Nitrogen	kg PO4--- eq	4,82642E-06
TOTAL		kg S02 eq	0,00154336



Impact category	Substance	Unit	Total
GLOBAL WARMING	Remaining Substances	kg CO2 eq	0
	Carbon monoxide, fossil	kg CO2 eq	223,6154792
	Carbon dioxide	kg CO2 eq	32,32280428
	Carbon dioxide, fossil	kg CO2 eq	5,398353003
	Dinitrogen monoxide	kg CO2 eq	4,2982E-262
	Methane, fossil	kg CO2 eq	0
TOTAL		kg CO2 eq	9,65881434



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



EPD Environmental Product Declaration

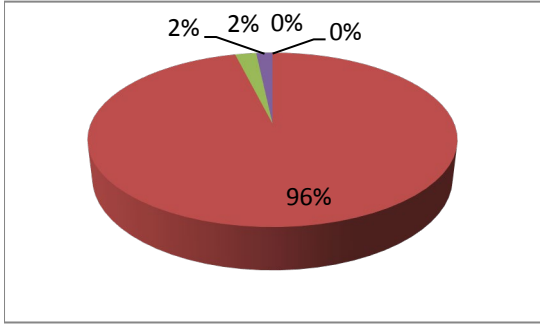
TABLE REU. POWER S.300 ELEV 140x140 HEIGHT 74-104 WHITE STRUCTURE- MELAMINE

Ref_PV43N00006

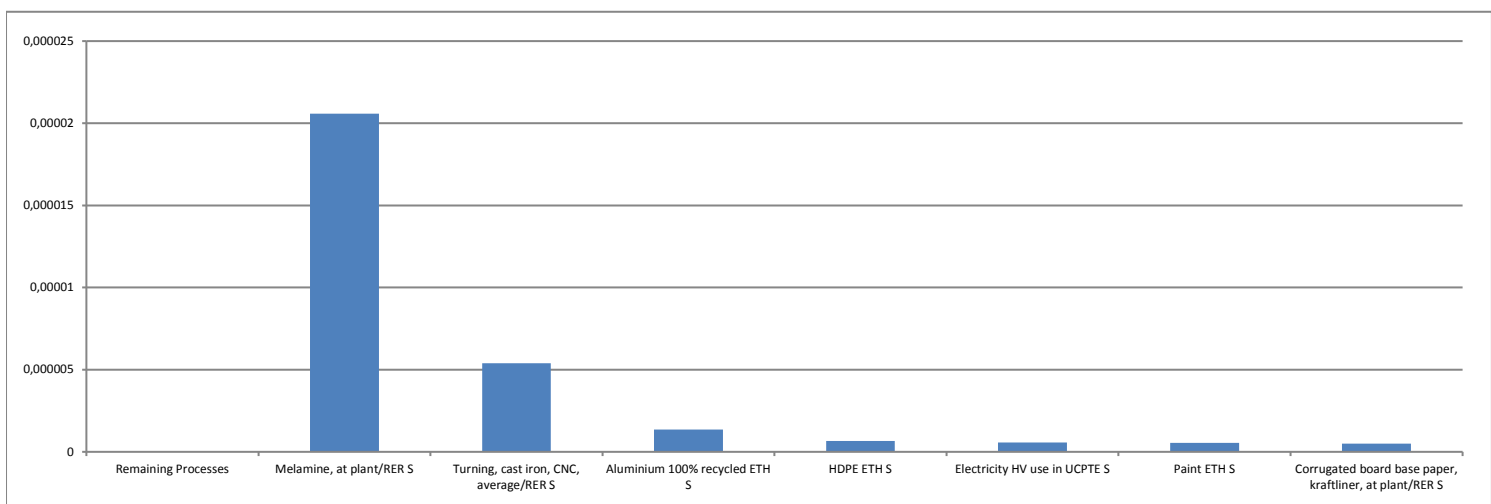
Report Data 15.05.2019

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

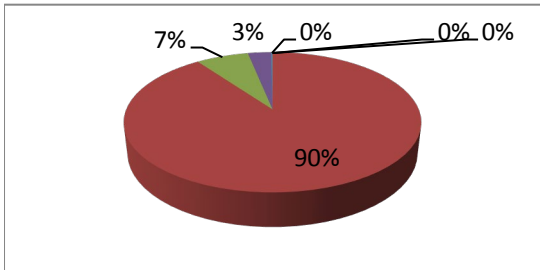
Impact category	Substance	Unit	Total
REDUCING OZONE	Remaining Substances	kg CFC-11 eq	0
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	2,86562E-05
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	6,57158E-07
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	5,06679E-07
	Methane, trichlorofluoro-, CFC-11	kg CFC-11 eq	4,2982E-262
	0	0	0
	TOTAL	kg SO2 eq	0



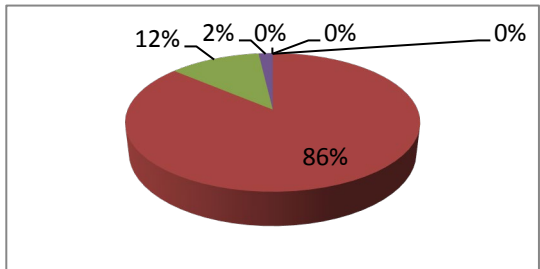
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining Substances	kg C2H4 eq	0
	Carbon monoxide, biogenic	kg C2H4 eq	0,15251565
	Benzene	kg C2H4 eq	0,011532895
	Butane	kg C2H4 eq	0,005147902
	Sulfur oxides	kg C2H4 eq	0,000272992
	Propane	kg C2H4 eq	1,16311E-05
	TOTAL	kg SO2 eq	0,01796382



Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Remaining Substances	MJ eq	0
	Coal, brown, in ground	MJ eq	3951,654406
	Coal, 18 MJ per kg, in ground	MJ eq	547,38424
	Coal, 29.3 MJ per kg, in ground	MJ eq	85,03645653
	Coal, hard, unspecified, in ground	MJ eq	4,2982E-262
	Oil, crude, 41 MJ per kg, in ground	MJ eq	4,2982E-262
	TOTAL	kg SO2 eq	153,936342



WASTE	Total NO HAZARDOUS	KG	29
	Total HAZARDOUS	KG	0,045

EPD Environmental Product Declaration

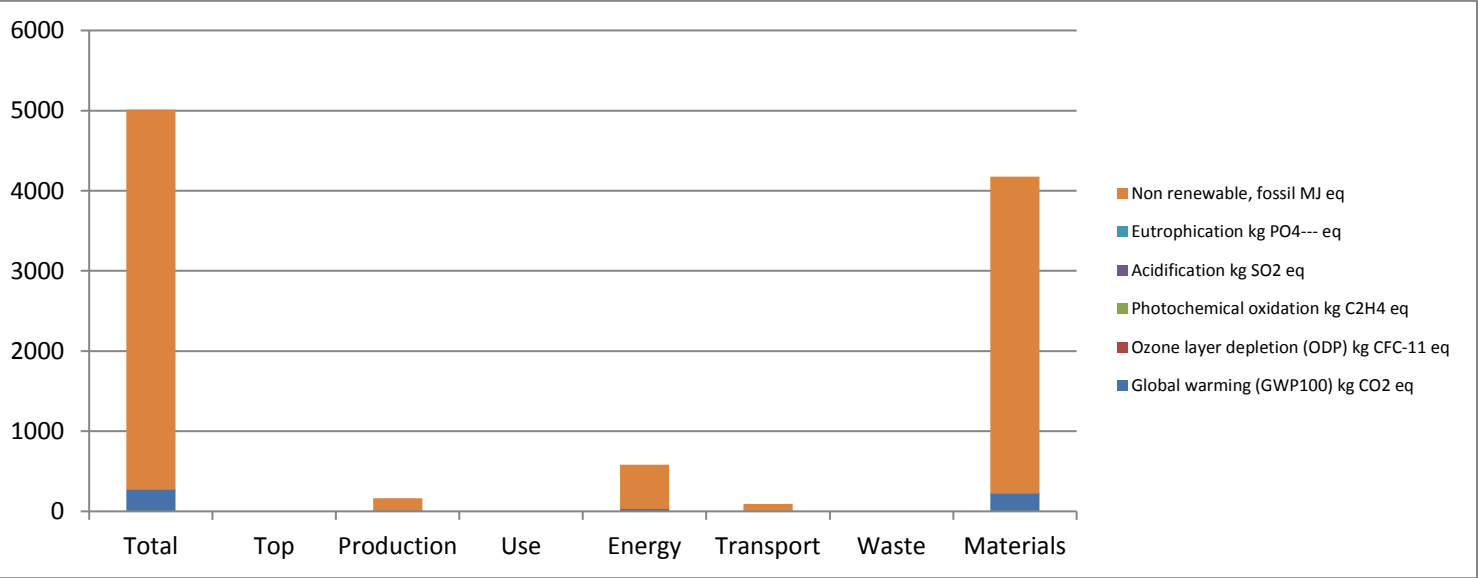


TABLE REU. POWER S.300 ELEV 140x140 HEIGHT 74-104 WHITE STRUCTURE- MELAMINE

Ref_PV43N00006 Report Data 15.05.2019

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	270,9954508	0	9,65881434	0	32,32280428	5,398	0	223,6
Ozone layer depletion (ODP)	kg CFC-11 eq	2,982E-05	0	0	0	6,57158E-07	5E-07	0	3E-05
Photochemical oxidation	kg C2H4 eq	0,187160268	0	0,01796382	0	0,011532895	0,005	0	0,153
Acidification	kg SO2 eq	1,253232888	0	0,155078	0	0,146787188	0,029	0	0,923
Eutrophication	kg PO4--- eq	0,175025725	0	0,00154336	0	0,009170112	0,009	0	0,155
Non renewable, fossil	MJ eq	4738,011445	0	153,936342	0	547,38424	85,04	0	3952



EPD Environmental Product Declaration

TABLE REU. POWER S.300 ELEV 140x140 HEIGHT 74-104 WHITE STRUCTURE- MELAMINE

Ref_PV43N00006

Report Data 15.05.2019

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 ECODESIGN STRATEGY	CHOICES CHOSEN WITH THE PRODUCT
Low impact materials selection	Designed to be manufactured with 60% recycled materials
	100% recycled aluminium
	Powder paint with no VOC emissions
	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 different 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 product 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: 98%
	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.