EPD Environmental Product Declaration

Chair STAY

Ref. 9105M14

Report Data 27.05.2021

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 España

1. Details of the system

Type	New Product	X	Redesign		Studied Year 2021

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
Plastic	4,630	29,68%	Bibliographic data	Bibliographic data
Aluminium	5,902	37,84%	Bibliographic data	Bibliographic data
Carton	1,825	11,70%	Bibliographic data	Bibliographic data
Steel	2,327	14,92%	Bibliographic data	Bibliographic data
Others	0,915	5,87%	Bibliographic data	Bibliographic data
TOTAL	**15,599**	**100,00%**		
% recicled materials		49,54%		
% reciclable materials		64,45%		

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 UNE ISO 14006 "Ecodesign".

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

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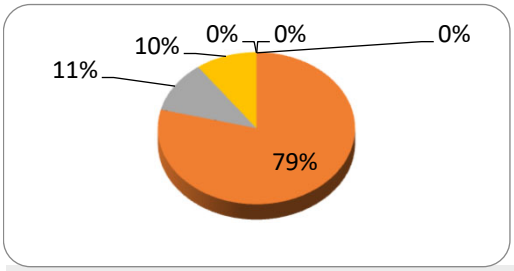
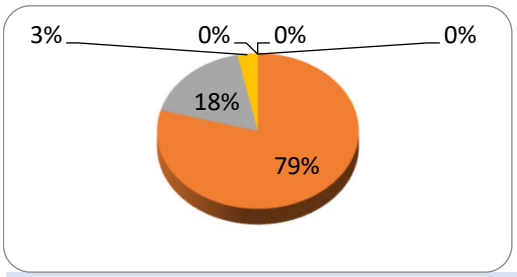
3. Impacts produced by category. Five substaces area included in each category have the greatest impact in each category

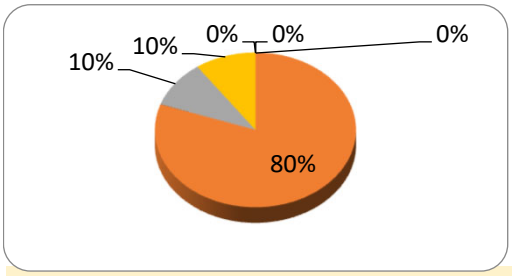
Impact category	Substance	Unit	Total
ACIDIFICATION	Remaining substances	kg SO2 eq	0
	Sulfur dioxide	kg SO2 eq	0,098153444
	Nitrogen dioxide	kg SO2 eq	0,013648515
	Ammonia	kg SO2 eq	0,012540152
	Sulfur oxides	kg SO2 eq	0
	0	0	0
	TOTAL	kg SO2 eq	0



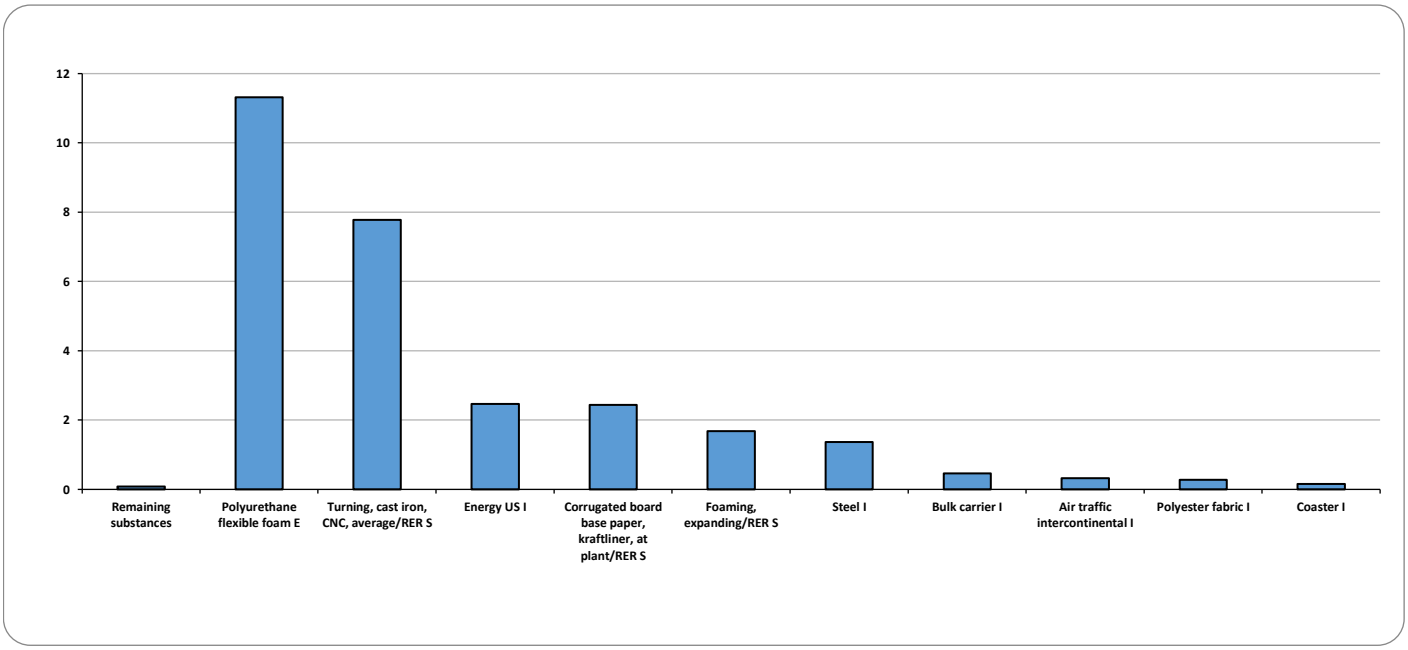
Impact category	Substance	Unit	Total
EUTROFIZATION	Remaining substances	kg PO4--- eq	0
	Nitrogen oxides	kg PO4--- eq	0,020593348
	Dinitrogen monoxide	kg PO4--- eq	0,00452213
	Ammonia	kg PO4--- eq	0,000848952
	Phosphorus, total	kg PO4--- eq	0
	Ammonium, ion	kg PO4--- eq	0
	TOTAL	kg SO2 eq	0



Impact category	Substance	Unit	Total
CALENTAMIENTO GLOBAL	Remaining substances	kg CO2 eq	0
	Carbon monoxide, fossil	kg CO2 eq	23,25833913
	Carbon dioxide, fossil	kg CO2 eq	2,849713898
	Carbon dioxide	kg CO2 eq	2,834707403
	Dinitrogen monoxide	kg CO2 eq	0
	Methane, fossil	kg CO2 eq	0
	TOTAL	kg SO2 eq	0



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



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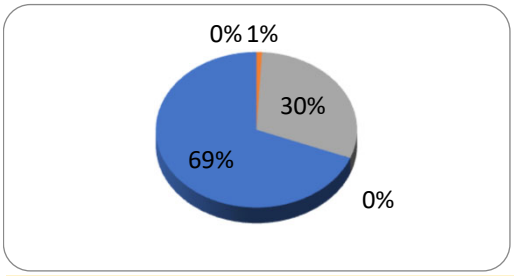
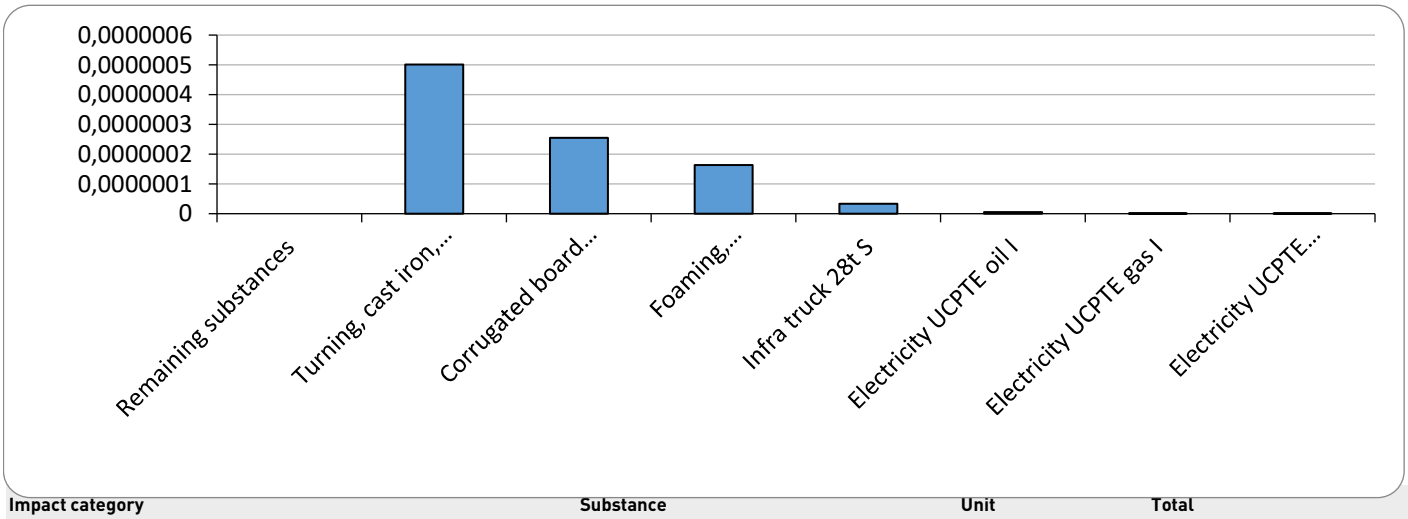
4. Impacts produced by category. Five substaces area included in each category have the greatest impact in each category

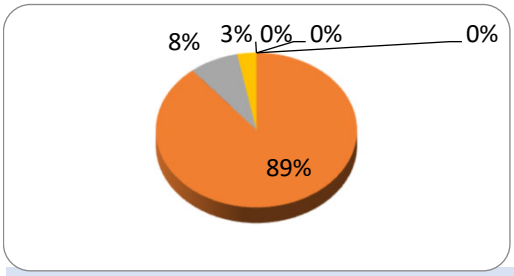
Impact category	Substance	Unit	Total
REDUCCIÓN CAPA DE OZONO	Remaining substances	kg CFC-11 eq	0
	Methane, bromochlorodifluoro-	kg CFC-11 eq	8,63E-09
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	2,89E-07
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	0
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	6,65E-07
	0	0	0
	TOTAL	kg SO2 eq	0



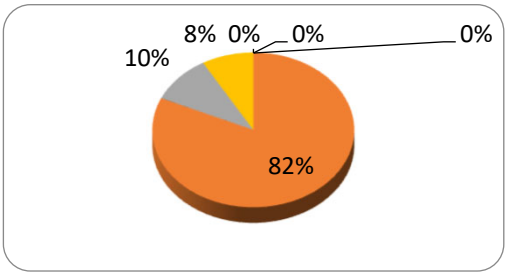
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Remaining substances	kg C2H4 eq	0
	Hydrocarbons, unspecified	kg C2H4 eq	0,029602024
	Carbon monoxide, fossil	kg C2H4 eq	0,002634368
	Carbon monoxide	kg C2H4 eq	0,001022534
	Methane	kg C2H4 eq	0
	NMVOC, non-methane volatile org	kg C2H4 eq	0
	TOTAL	kg SO2 eq	0



Impact category	Substance	Unit	Total
RECURSOS NO RENOVABLES	Remaining substances	MJ eq	0
	Coal, hard, unspecified, in ground	MJ eq	427,7407756
	Coal, 18 MJ per kg, in ground	MJ eq	52,25925422
	Coal, 29.3 MJ per kg, in ground	MJ eq	43,464279
	Gas, natural, 35 MJ per m3, in grou	MJ eq	0
	Energy, from coal	MJ eq	0
	TOTAL	kg SO2 eq	0



WASTE	Total NO HAZARDOUS	KG	3,91
	Total HAZARDOUS	KG	0,0502

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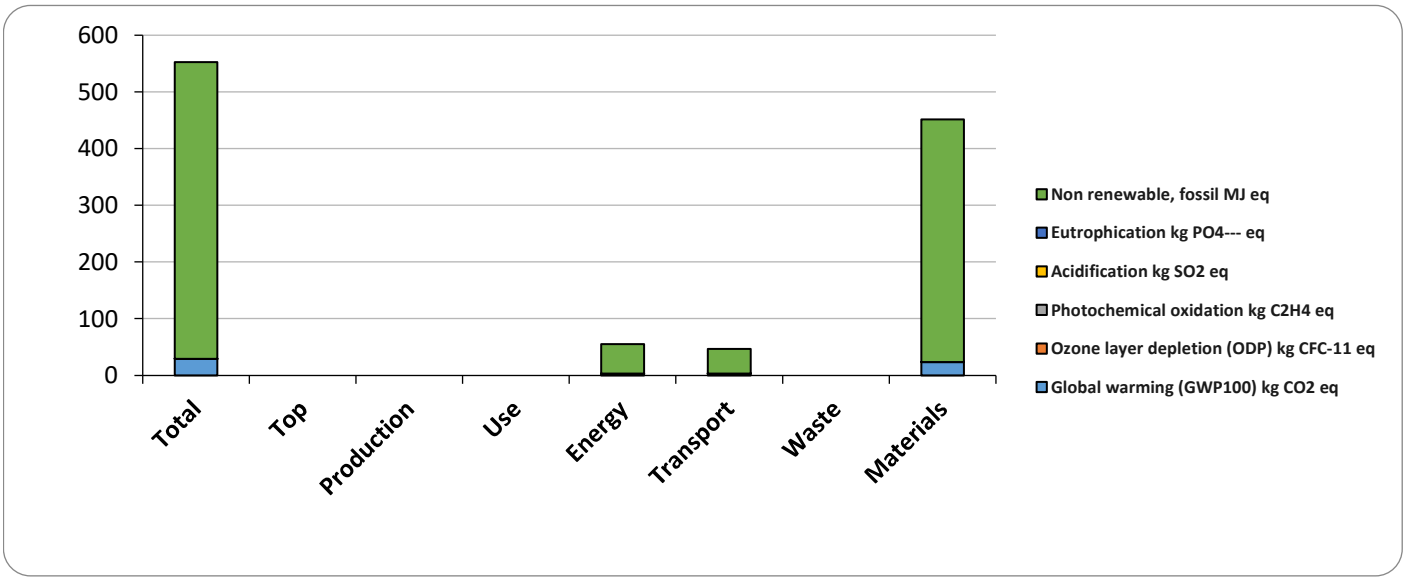
5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Categry	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	28,94276043	0	0	0	2,834707403	2,85	0	23,26
Ozone layer depletion (ODP)	kg CFC-11 eq	9,62E-07	0	0	0	8,63E-09	###	0	###
Photochemical oxidation	kg C2H4 eq	0,033258926	0	0	0	0,001022534	0,003	0	0,03
Acidification	kg SO2 eq	0,12434211	0	0	0	0,012540152	0,014	0	0,098
Eutrophication	kg PO4--- eq	0,025964429	0	0	0	0,000848952	0,005	0	0,021
Non renewable, fossil	MJ eq	523,4643088	0	0	0	52,25925422	43,46	0	427,7



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 STRATEGY ECODESIGN	OPTIONS CHOSEN WITH THE PRODUCT
Low impact materials selection	Designed to be manufactured with 65% recycled materials
	100% recycled aluminium
	Powder paint with no VOC amissions
	Limitation on use of hazardous substances. Whithout chromium, mercury, cadmium
	Embalajes realizados en cartón reciclado.
Optimization of product techniques	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.
	Closed water circuits. Heat recovery.
	Automated manufacturing systems. Planning the cutting process.
	Automated manufacturing systems. Planning the cutting process.
Optimization of distribution system	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 product life
	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, expand 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: 70%
	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 ISO 14006 "Ecodesign".

ISO 14006 "Ecodesign"

UNE ISO 14006 "Ecodesign"

Environmental impacts methods

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