

EPD Environmental Product Declaration

VITAL PRO table

Ref. 14112

Report Date 31.07.2014

Certificates

ISO 9001:2008

ISO 14001:2004

ISO 14006. Ecodiseño

PEFC. Programme for the Endorsement of Forest Certification

FSC. Forest Stewardship Council



1. Details of the system

Type	New Product	<input checked="" type="checkbox"/>	Redesign	<input type="checkbox"/>	Studied Year 2014
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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
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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
Wood	25,812	44,10%	Bibliographic data	Bibliographic data
Steel	27,286	46,62%	Bibliographic data	Bibliographic data
Coarrugated Board	4,439	7,58%	Bibliographic data	Bibliographic data
Others	0,302	0,52%	Bibliographic data	Bibliographic data
Plastic	0,69554	1,19%	Bibliographic data	Bibliographic data
TOTAL	58,53454	100,00%		
% recycled materials		42,86%		
% recyclable materials		98,30%		

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".

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

www.actiu.com

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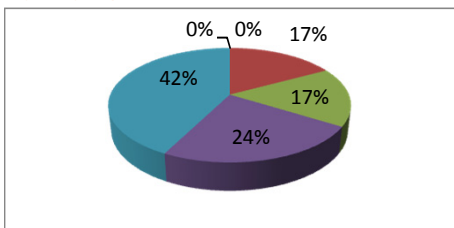
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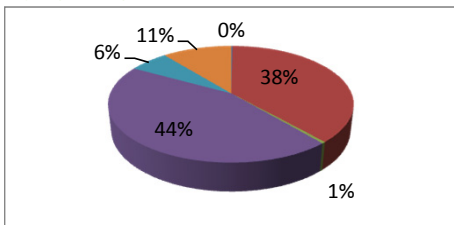
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

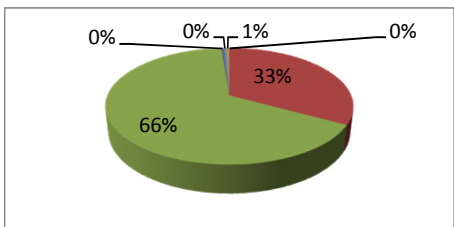
Impact category	Substance	Unit	Total
ACIDIFICATION	Substancias remanentes	kg SO2 eq	0,000232057
	Ammonia	kg SO2 eq	0,295860175
	Nitrogen oxides	kg SO2 eq	0,288645914
	Sulfur dioxide	kg SO2 eq	0,409608154
	Sulfur oxides	kg SO2 eq	0,734249463
	TOTAL	kg SO2 eq	1,728595763



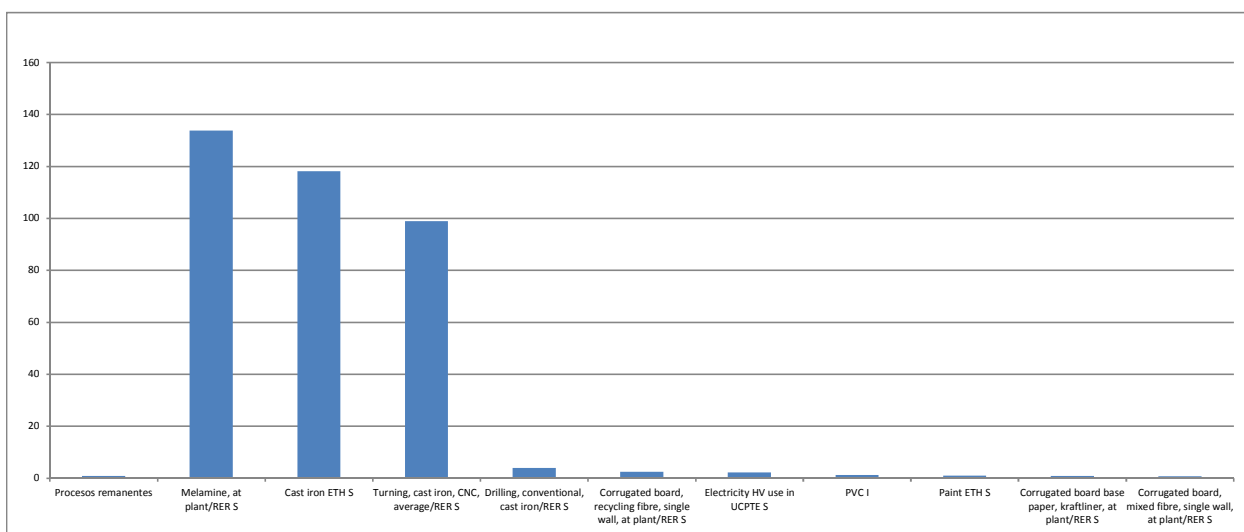
Impact category	Substance	Unit	Total
EUTROFIZATION	Substancias remanentes	kg P04--- eq	0,000298624
	Ammonia	kg P04--- eq	0,064719413
	Dinitrogen monoxide	kg P04--- eq	0,000722322
	Nitrogen oxides	kg P04--- eq	0,075047938
	Ammonium, ion	kg P04--- eq	0,010369667
	COD, Chemical Oxygen Demand	kg P04--- eq	0,018437547
	TOTAL	kg SO2 eq	0,206413503



Impact category	Substance	Unit	Total
GLOBAL WARMING	Substancias remanentes	kg CO2 eq	0,531241395
	Carbon dioxide	kg CO2 eq	111,9767399
	Carbon dioxide, fossil	kg CO2 eq	224,9092026
	Carbon monoxide	kg CO2 eq	1,097704965
	Carbon monoxide, fossil	kg CO2 eq	1,502520781
	Dinitrogen monoxide	kg CO2 eq	1,644671223
	TOTAL	kg SO2 eq	365,0302512



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



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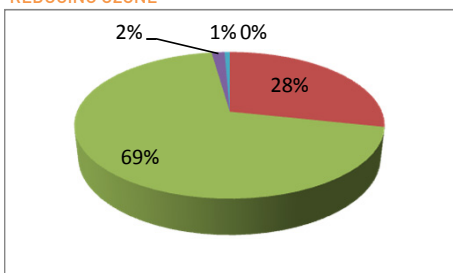
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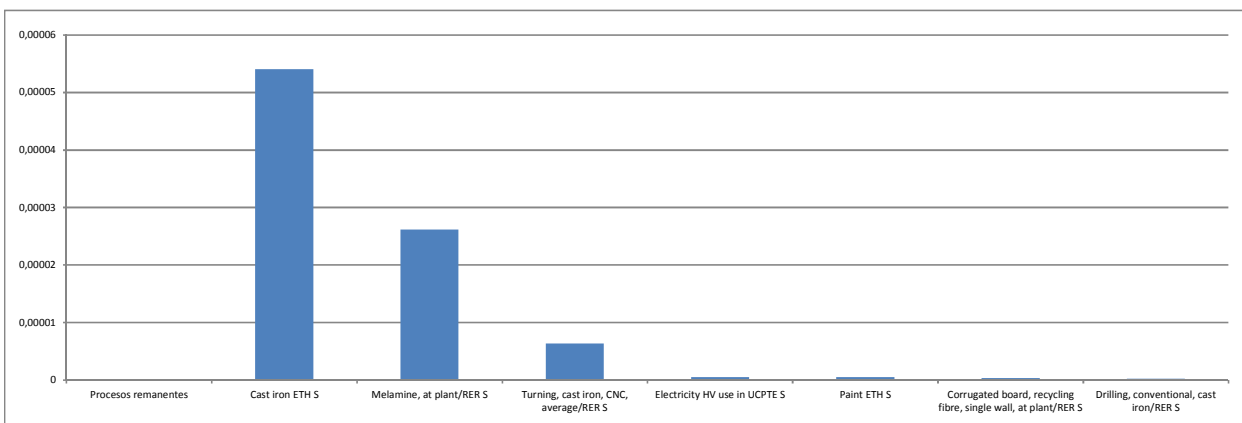
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4. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

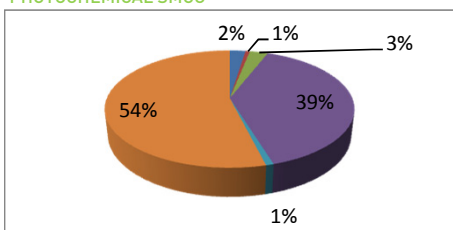
Impact category	Substance	Unit	Total
REDUCING OZONE	Substancias remanentes	kg CFC-11 eq	2,63916E-09
	Methane, bromochlorodifluoro-, Halon 1301	kg CFC-11 eq	2,50295E-05
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	6,13377E-05
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	1,42905E-06
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	5,77352E-07
TOTAL		kg SO2 eq	8,84688E-05



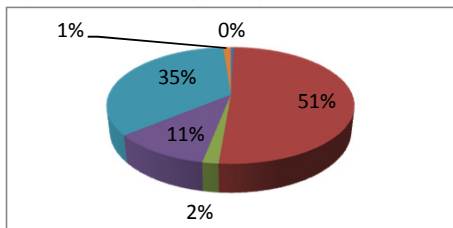
Impact of group elements (materials, processes, energy, use, transport and waste)



Impact category	Substance	Unit	Total
PHOTOCHEMICAL SMOG	Substancias remanentes	kg C2H4 eq	0,001161834
	Benzene	kg C2H4 eq	0,000327756
	Butane	kg C2H4 eq	0,001340694
	Carbon monoxide	kg C2H4 eq	0,018877729
	Carbon monoxide, biogenic	kg C2H4 eq	0,000401597
	Carbon monoxide, fossil	kg C2H4 eq	0,025839529
TOTAL		kg SO2 eq	0,322188032



Impact category	Substance	Unit	Total
NON-RENEWABLE RESOURCES	Substancias remanentes	MJ eq	9,358095531
	Coal, 18 MJ per kg, in ground	MJ eq	987,1722375
	Coal, brown, 8 MJ per kg, in ground	MJ eq	34,25995919
	Coal, brown, in ground	MJ eq	211,9154933
	Coal, hard, unspecified, in ground	MJ eq	676,0843401
	Energy, from gas, natural	MJ eq	23,496576
TOTAL		kg SO2 eq	6217,195566



WASTE	Total NO HAZARDOUS	KG	33,9
	Total HAZARDOUS	KG	0,0225

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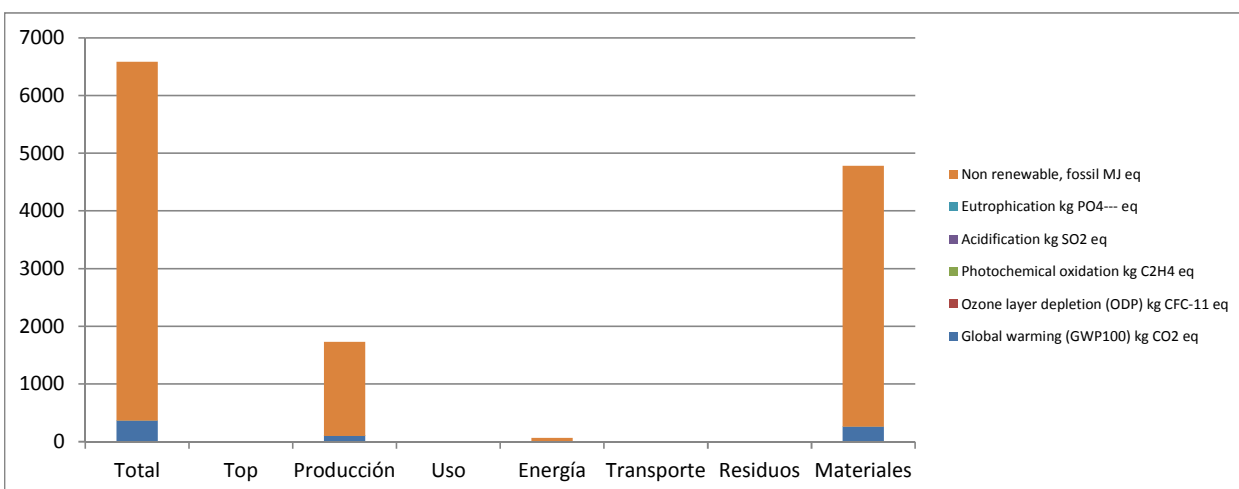
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Trsp.	Waste	Mat.
Global warming (GWP100)	kg CO2 eq	365,0302512	0	102,9355687	0	3,40324035	0,094	0	258,6
Ozone layer depletion (ODP)	kg CFC-11 eq	8,84688E-05	0	6,63667E-06	0	5,66812E-07	1E-09	0	8E-05
Photochemical oxidation	kg C2H4 eq	0,322188032	0	0,065952068	0	0,00209118	1E-04	0	0,254
Acidification	kg SO2 eq	1,728595763	0	0,327393107	0	0,018731894	0,002	0	1,38
Eutrophication	kg PO4--- eq	0,206413503	0	0,072782819	0	0,000902155	2E-04	0	0,132
Non renewable, fossil	MJ eq	6217,195566	0	1627,31059	0	65,91113529	0,026	0	4524



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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 43% 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: 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".

ISO 14006 "Ecodesign"

ISO 14006 "Ecodesign"

Environmental impacts methods

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