

EPD Environmental Product Declaration



TRAMA - SERIE 30

Ref. TM633000

Report Data 07.04.2010

Certificates

ISO 9001:2008

ISO 14001:2004

UNE 150301. Ecodiseño

PEFC. Cadena Custodia Productos Madera

CCVE. Consejo Construcción Verde España (Spain Green Building Council)



1. Data on the System.

Type	New Product <input checked="" type="checkbox"/>	Redesign <input type="checkbox"/>	Studied Year	2009
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 Including the extraction and processing of raw materials and component sourcing to its delivery at the Actiu Technological Park.	Production Consider the production and assembly processes used in Actiu.	Transport Includes from the Actiu Technological Park to our customers facilities. Transport is provided through light commercial transport.	Use This stage has not environmentally relevance for life cycle analysis.	End of life 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 material	Processed
Aluminium	3,38	10,86%	Bibliographic data	Bibliographic data
Plastic	1,287	4,14%	Bibliographic data	Bibliographic data
Paperboard	4,434	14,25%	Bibliographic data	Bibliographic data
Wood	16,313	52,43%	Bibliographic data	Bibliographic data
Steel	4,783	15,37%	Bibliographic data	Bibliographic data
Various	0,916	2,94%	Bibliographic data	Bibliographic data
TOTAL	31,113	100,00%		
% recycled materials		67,06%		
% recyclable materials		92,92%		

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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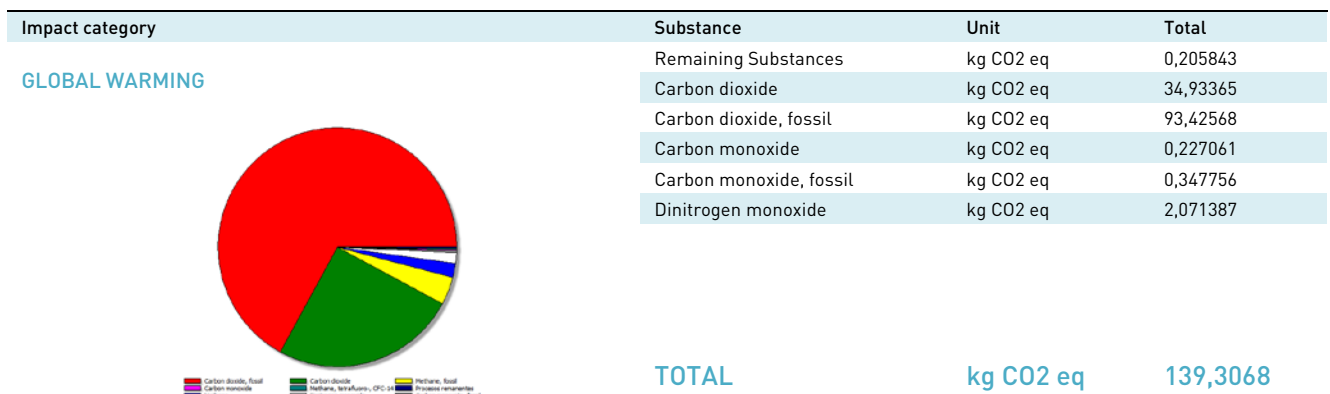
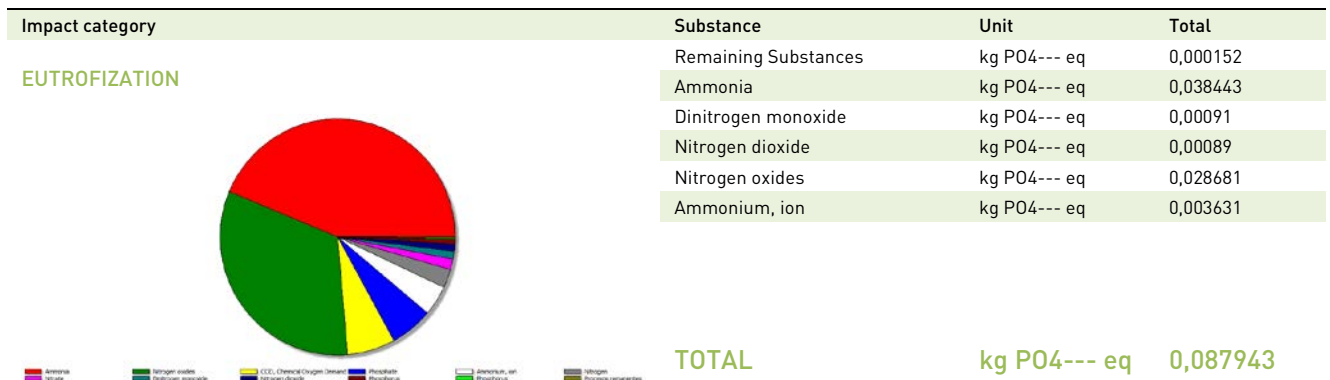
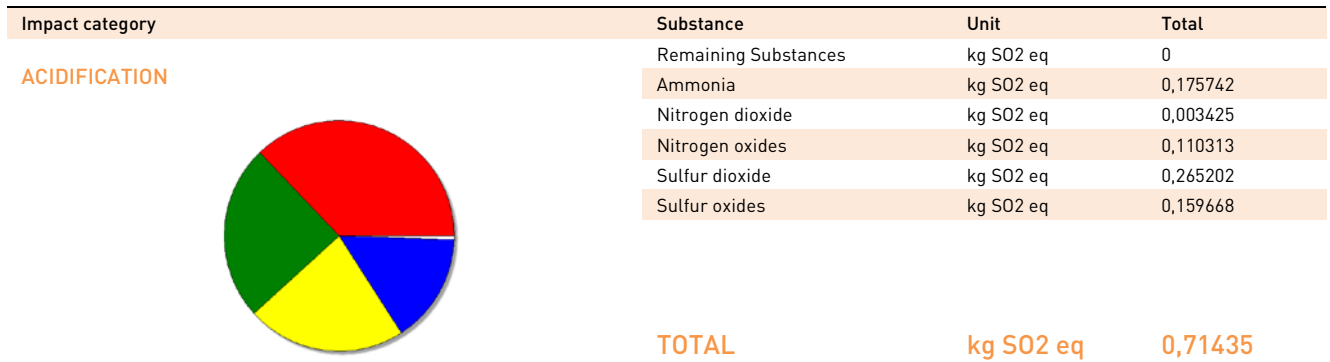


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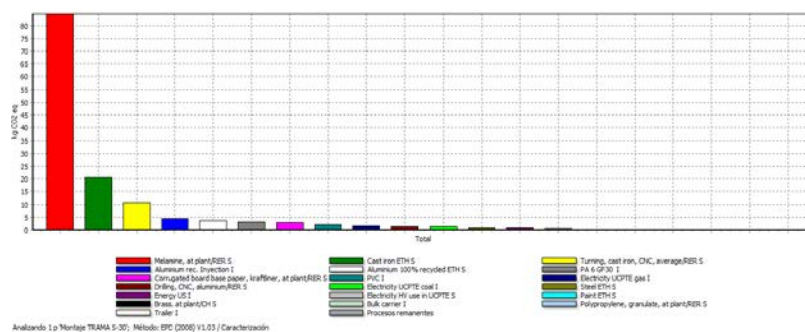
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category



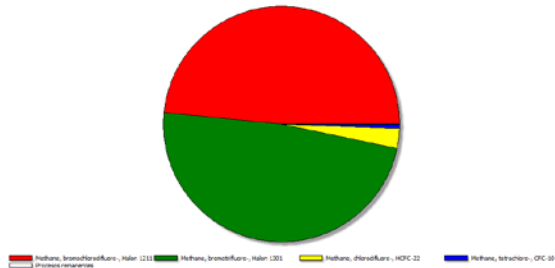
Impact of group elements (materials, processes, energy, use, transport and waste)



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

www.actiu.com

OZONE LAYER REDUCTION



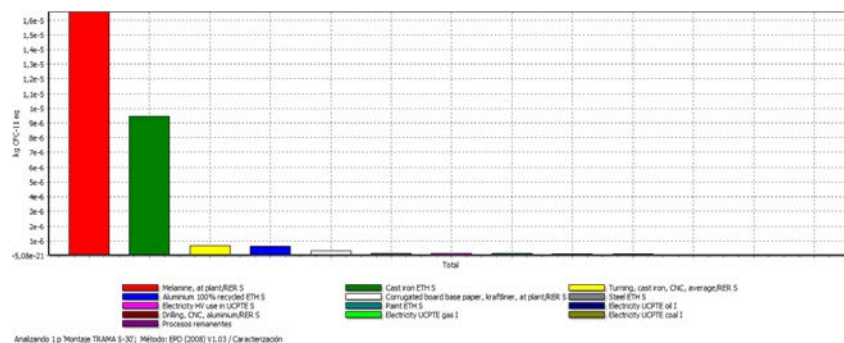
Substance	Unit	Total
Substancias remanentes	Kg CFC-11 eq	2,68E-08
Methane, bromochlorodifluoro-, Halon 1211	Kg CFC-11 eq	1,37E-05
Methane, bromotrifluoro-, Halon 1301	Kg CFC-11 eq	1,37E-05
Methane, chlorodifluoro-, HCFC-22	Kg CFC-11 eq	7,62E-07
Methane, tetrachloro-, CFC-10	Kg CFC-11 eq	1,48E-07

TOTAL

kg CFC-11 eq

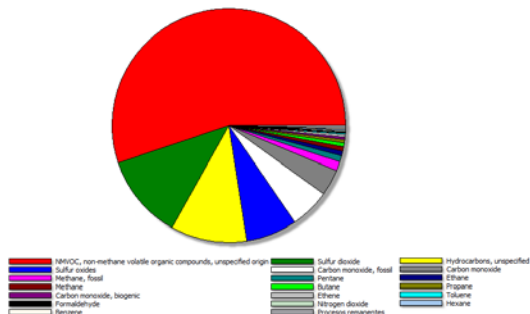
2,83E-05

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



Impact category

SMOG PHOTOCHEMISTRY



Substance	Unit	Total
Substancias remanentes	kg C2H4 eq	0,000412
Benzene	kg C2H4 eq	0,000138
Butane	kg C2H4 eq	0,000593
Carbon monoxide	kg C2H4 eq	0,003905
Carbon monoxide, biogenic	kg C2H4 eq	0,000387
Carbon monoxide, fossil	kg C2H4 eq	0,005981

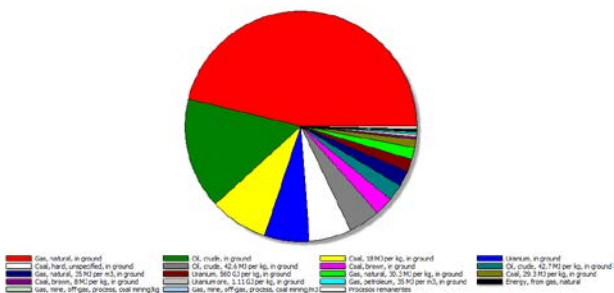
TOTAL

kg C₂H₄ eq

0,107917

Impact category

NONRENEWABLE RESOURCES



Substance	Unit	Total
Substancias remanentes	MJ eq	7,634974
Coal, 18 MJ per kg, in ground	MJ eq	202,3506
Coal, 29.3 MJ per kg, in ground	MJ eq	27,33619
Coal, brown, 8 MJ per kg, in ground	MJ eq	9,425152
Coal, brown, in ground	MJ eq	64,84091
Coal, hard, unspecified, in ground	MJ eq	146,2512

TOTAL

MJ eq

2490,399

WASTE	Total NOT DANGEROUS	KG	11,1
	Total DANGEROUS	KG	0,0243

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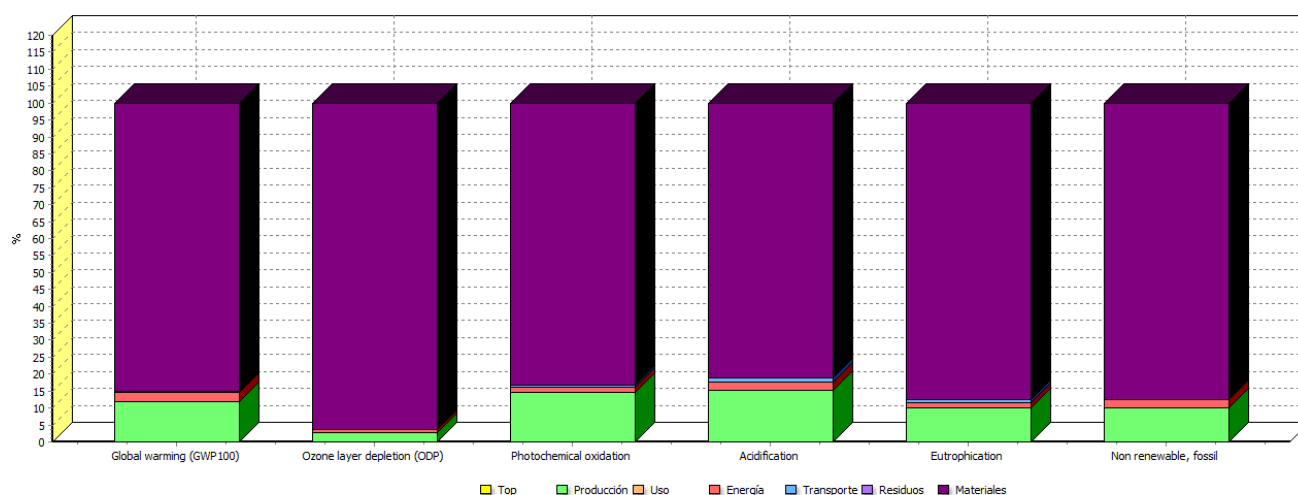
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4. Impacts Produced by Life Cycle Stage. Six stages are included: Production, Use, Energy, Transportation, Waste and Materials.

Impact Category	Uts.	Total	Top	Production	Use	Energy	Transport	Waste	Materials
Global warming	kg CO2 eq	139,3068	0	16,36238	0	4,152814	0,385068	0	118,4065
Ozone layer depletion	kg CFC-11 eq	2,83E-05	0	7,75E-07	0	2,91E-07	7,45E-10	0	2,72E-05
Photochemical oxidation	kg C2H4 eq	0,107917	0	0,015781	0	0,00172	0,000583	0	0,089833
Acidification	kg SO2 eq	0,71435	0	0,109811	0	0,01661	0,007646	0	0,580282
Eutrophication	kg PO4--- eq	0,087943	0	0,00887	0	0,001244	0,000996	0	0,076834
Non renewable, fossil	MJ eq	2490,399	0	248,5533	0	63,55649	0,013932	0	2178,275



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5. 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 67% recycled materials 100% recycled aluminium Powder paint with no VOC admissions Limitation on use of hazardous substances. Without chromium, mercury, cadmium Board from recycled wood fibers Table edge without glue VOC content Wood meets E1 standard (reduced emissions, EN13986), does not emit formaldehyde. Recycled cardboard packaging.
Optimization of product techniques	Optimizing energy use throughout the production process Painting processes of high technology systems.: Zero VOC emissions and other pollutants. Recovery unused paint in the process. Zero emissions of VOCs. Cleaning metals by closed water circuit Optimization of energy use in the manufacturing process: Heat recovery in the painting process, automated manufacturing systems for energy savings.
Optimization of distribution system	Low volume packaging. Spaces optimization. Saving energy and Flexibility. Modular system adaptable between different models.
Optimization of product life	15 years minimum duration. Easy Maintenance y cleaning. Easily cleaned with a damp cloth with water. The product is part of a modular program. Easy to modify, expand and repair.
Optimization of the end of system life	Easy separation of product components High degree of recyclability of the product: 97% 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 14044:2006 "Environmental management. Lifecycle analysis. Requirements and guidelines"

UNE 150301:2003 "Ecodesign"

Environmental impacts methods

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