

STORAGE UNITS

SWING DOOR CABINET IN WHITE MELAMINE, DIMENSION: 185X80X42 CM

Product reference: AR85400

Report date: 16.12.2021

CERTIFICATES

ISO 9001. Quality Management Systems

ISO 14001. Environmental Management Systems. Use

ISO 14006. Environmental management systems. Ecodesign

GBCe. Green Building Council España

FSC®. Forest Stewardship Council



01 | SYSTEM INFORMATION

Product type:

☒ New product☐ Redesign of product

Year of the study: 2021

Scope of the Declaration:

Since the extraction of raw materials to the complete table solution, including end of life scenario. The detail of each of the phases considered and its scope is included below.

MATERIALS	PRODUCTION	TRANSPORT	USE	END OF LIFE
It includes the extraction of raw materials and its transformation, until its acquisition by Actiu.	Considers the production processes and assembly of Actiu	Consider transportation processes	This stage has no environmental relevance for life cycle analysis. It is estimated a durability of the 15-year product, although it can actually last longer.	Data from Spain have been taken as reference. A person who has to get rid of the table will deliver it to a clean point. It is assumed that the aluminum, wood and cardboard part can be recycled and, the rest is treated as an urban residue.

02 | RAW MATERIAL USED.

PRODUCT SPECIFICATIONS INCLUDING PACKING FOR THE FINAL PRODUCT

Raw material	Kg per solution product	Percentage %	Quality of the data	
			Production of raw materials	Processed
Melamine	74,043	0,902	Bibliographic data	Bibliographic data
Steel	0,984	0,012	Bibliographic data	Bibliographic data
Paperboard	5,244	0,064	Bibliographic data	Bibliographic data
PVC.	1,576	0,019	Bibliographic data	Bibliographic data
Polypropylene	0,103	0,001	Bibliographic data	Bibliographic data
LDPE polyethylene	0,059	0,001	Bibliographic data	Bibliographic data
Wood	0,007	0,000	Bibliographic data	Bibliographic data
ABS plastic	0,095	0,001	Bibliographic data	Bibliographic data
Others	0,004	0,000	Bibliographic data	Bibliographic data
TOTAL	82,115	100,00%		

% RECYCLED MATERIALS

51,99%

% RECYCLABILITY

97,76%

The product design ACTIU is carried out to facilitate the separation of its components and recycling.

The product has been designed to provide companies with LEED® certification. LEED® credits can be obtained thanks to our product. On the one hand, it contains a high percentage of recycled materials and has been manufactured with low emissions to the atmosphere. On the other hand, it has been designed with ergonomic standards. Finally, it can be easily recycled thanks to which it has been conceived for a disassembly and identification of its very simple components. All this will help you get LEED® credits for employee health and innovation.

The verification of the life cycle analysis process is carried out by experts in independent ecodesign (ActiveLink, S.L.) and through the criteria of the standard UNE - EN ISO 14006: 2011 "Environmental Management Systems. Guidelines for the incorporation of ecodesign".

03 | IMPACTS PRODUCED BY CATEGORY.

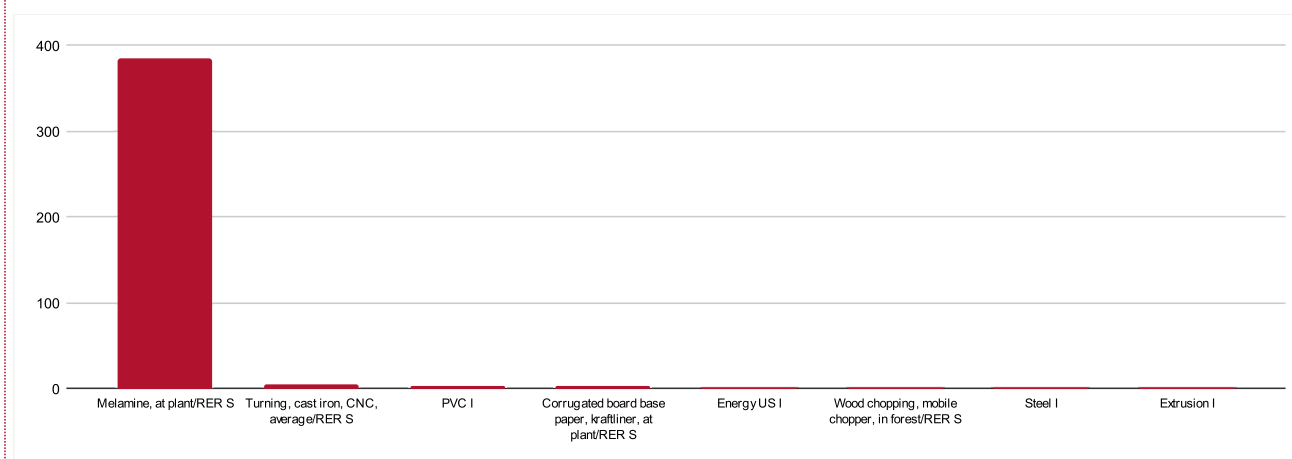
WE REFLECT THE FIVE SUBSTANCES THAT HAVE THE MOST IMPACT IN EACH CATEGORY

Impact category	Substance	Unit	Total
ACIDIFICATION			
	Ammonia	kg SO2 eq	0,7866395442
	Sulfur dioxide	kg SO2 eq	0,5392434603
	Nitrogen oxides	kg SO2 eq	0,2858177782
	Sulfur oxides	kg SO2 eq	0,02587725745
	Nitrogen dioxide	kg SO2 eq	0,002326076924
	TOTAL (100%)	kg SO2 eq	1,639904117

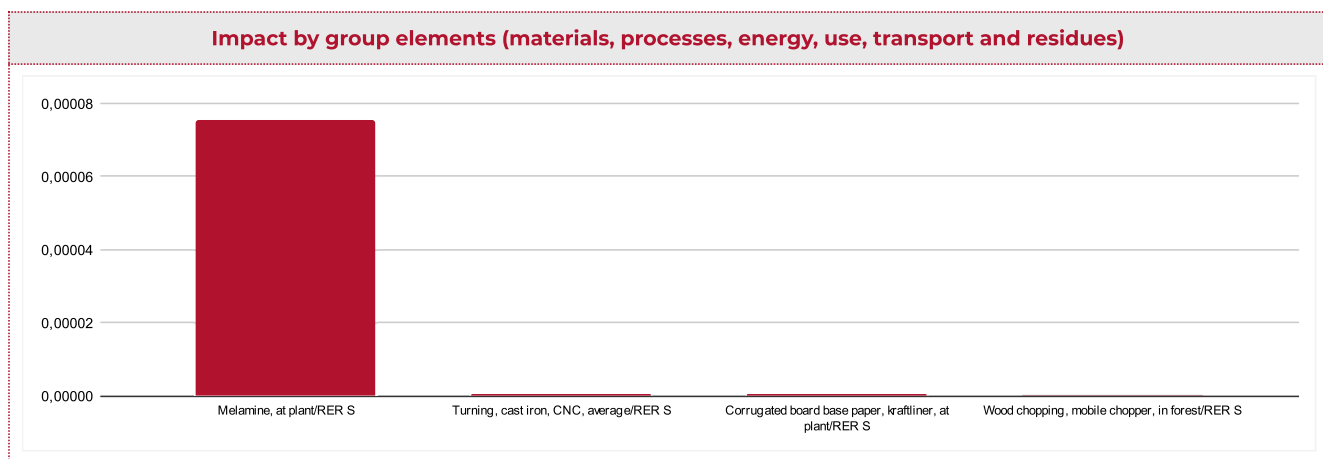
Impact category	Substance	Unit	Total
EUTROPHICATION			
	Ammonia	kg PO4--- eq	0,1720774003
	Phosphate	kg PO4--- eq	0,009237775844
	Nitrogen oxides	kg PO4--- eq	0,07431262232
	COD, Chemical Oxygen Demand	kg PO4--- eq	0,01502977679
	Ammonium, ion	kg PO4--- eq	0,01290107852
	TOTAL (100%)	kg SO2 eq	0,2927541807

Impact category	Substance	Unit	Total
GLOBAL WARMING			
	Dinitrogen monoxide	kg CO2 eq	395,4725768
	Carbon dioxide, fossil	kg CO2 eq	3,246069469
	Carbon dioxide	kg CO2 eq	1,882544398
	TOTAL (100%)	kg SO2 eq	1,02706579

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



Impact category	Substance	Unit	Total
REDUCTION OF THE OZONE LAYER			
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	0,00007570490985
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	0,0000002970025485
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	0,00000003110570511
	TOTAL (100%)	kg SO2 eq	0,0000001161893187



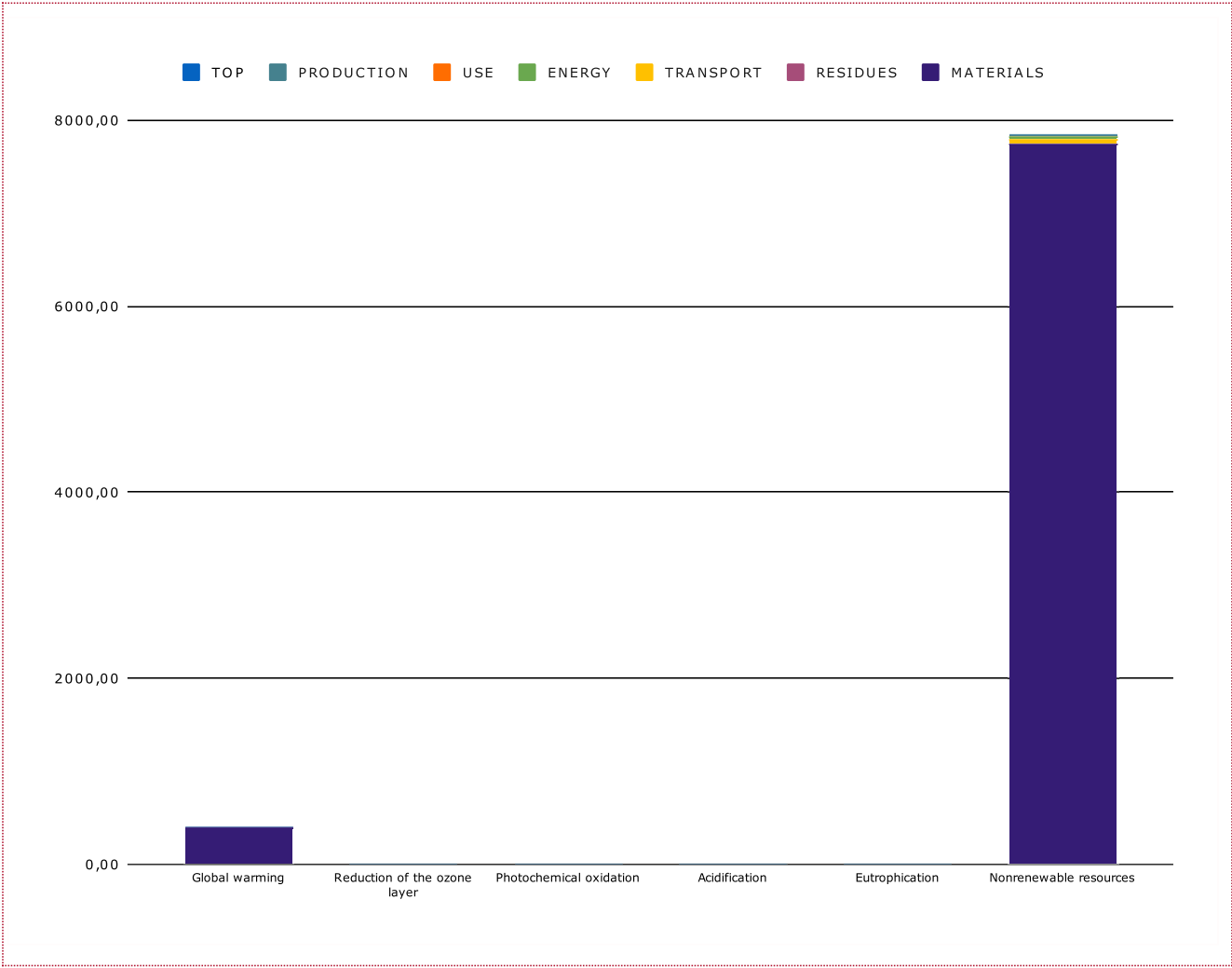
Impact category	Substance	Unit	Total
PHOTOCHEMICAL OXIDATION			
	NMVO, non-methane volatile organic compounds, unspecified origin	kg C2H4 eq	0,1300085735
	Sulfur dioxide	kg C2H4 eq	0,02588368609
	Carbon monoxide, fossil	kg C2H4 eq	0,01850970867
	Hydrocarbons, unspecified	kg C2H4 eq	0,01238279593
	Methane, fossil	kg C2H4 eq	0,005556477508
	TOTAL (100%)	kg SO2 eq	0,209252439

Impact category	Substance	Unit	Total
NONRENEWABLE RESOURCES			
	Gas, natural, in ground	MJ eq	5017,075208
	Oil, crude, in ground	MJ eq	1569,433647
	Uranium, in ground	MJ eq	509,8561893
	Coal, hard, unspecified, in ground	MJ eq	394,5831521
	Coal, brown, in ground	MJ eq	218,938956
	TOTAL (100%)	kg SO2 eq	7848,776519

WASTE	TOTAL NON-DANGEROUS	kg	30,99
	TOTAL DANGEROUS	kg	0,04

04 | IMPACTS PRODUCED BY STAGE LIFE CYCLE.
STAGE TYPE: (1) PRODUCTION, (2) USE, (3) ENERGY, (4) TRANSPORT, (5) RESIDUES AND (6) MATERIALS.

Category of impact	Unit	TOTAL	TOP	(1)	(2)	(3)	(4)	(5)	(6)
Global warming	kg CO2 eq	401,63	0,00	1,03	0,00	1,88	3,25	0,00	395,47
Reduction of the ozone layer	kg CFC-11 eq	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Photochemical oxidation	kg C2H4 eq	0,21	0,00	0,00	0,00	0,00	0,00	0,00	0,20
Acidification	kg SO2 eq	1,64	0,00	0,01	0,00	0,01	0,02	0,00	1,60
Eutrophication	kg PO4--- eq	0,29	0,00	0,00	0,00	0,00	0,01	0,00	0,28
Nonrenewable resources	MJ eq	7848,78	0,00	17,25	0,00	31,58	49,70	0,00	7750,25



05 | ECODESIGN IMPROVEMENTS CONSIDERED

Actiu products are ecodesigned considering different environmental strategies.
According to its level of complexity, the strategies used are classified at one of the following.
Below are some of the options chosen for the significant product ecodesign.

PRODUCT ECODESIGN STRATEGY	CHOSEN OPTIONS WITH THE PRODUCT
Selection of low impact materials	Percentage of recycled material used: 51,99%
	100% recycled aluminum.
	Powder paint (without VOC emissions).
	Limitation in the use of hazardous substances. Without chromium, mercury, cadmium.
	Board from recycled wood fibers.
	Singing the table set with glue without content in Covs.
	Wood complies with EI Standard (reduced emissions, EN13986), does not emit formaldehydes.
	Packaging made in recycled cardboard.
Optimization of production techniques	Optimization Process cut for reduction Generation waste.
	Painting processes with the best available techniques.
	Zero COV emissions and other polluting gases.
	Recovery of the painting not used in the process for reuse.
	Cleaning metals by closed water circuit.
Optimization of the distribution system	Optimization of energy use in the manufacturing process: heat recovery in the painted process, automated manufacturing systems for energy saving.
	Packaging 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, expand and repair to optimize your useful life.
	Percentage of recyclability: 97,76%
	Easy separation components of the product.
	System of reuse of packaging between Actiu and its supplier park to avoid the generation of waste.

BIBLIOGRAPHY AND REFERENCES

ISO 14025 Ecological 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 the calculation of environmental impacts.

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