

FLUIT CHAIR WITH RECYCLED MATERIAL

MODEL WITHOUT ARMS, FINISHED WHITE RECYCLED POLYPROPYLENE + GLASS FIBER

Product reference: FL16001002P50

Report date: 03.03.2022

CERTIFICATES

ISO 9001. Quality Management Systems

ISO 14001. Environmental Management Systems. Use

ISO 14006. Environmental management systems. Ecodesign

GBCe. Green Building Council España



01 | SYSTEM INFORMATION

Product type:

☒

New product

☐

Redesign of product

Year of the study: 2022

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

It includes the extraction of raw materials and its transformation, until its acquisition by Actiu.

PRODUCTION

Considers the production processes and assembly of Actiu

TRANSPORT

Consider transportation processes

USE

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.

END OF LIFE

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
Recycled polypropylene	8,900	0,749	Bibliographic data	Bibliographic data
Polypropylene	0,001	0,000	Bibliographic data	Bibliographic data
LDPE polyethylene	0,049	0,004	Bibliographic data	Bibliographic data
Paperboard	2,938	0,247	Bibliographic data	Bibliographic data
Cloth	0,001	0,000	Bibliographic data	Bibliographic data
TOTAL	11,889	100,00%		

% RECYCLED MATERIALS

99,57%

% RECYCLABILITY

99,58%

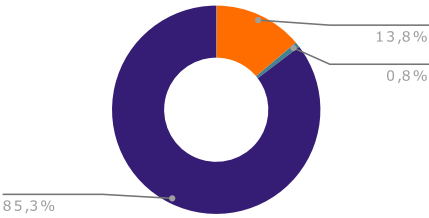
The product design ACTIU is carried out to facilitate the separation of its components and recycling.

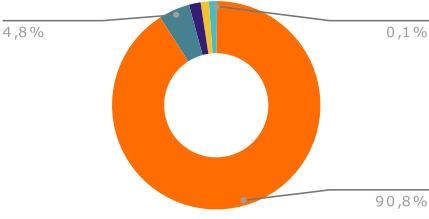
The product has been designed to provide companies with LEED® certification. LEED® credits can be obtained thanks to our product. On the one hand, it contains a high percentage of recycled materials and has been manufactured with low emissions to the atmosphere. On the other hand, it has been designed 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.

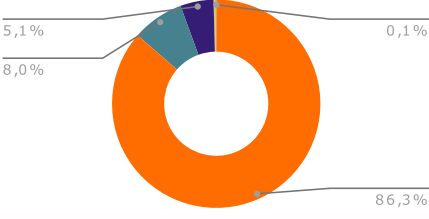
The verification of the life cycle analysis process is carried out by experts in independent ecodesign (ActiveLink, S.L) and through the criteria of the standard UNE - EN ISO 14006: 2011 "Environmental Management Systems. Guidelines for the incorporation of ecodesign".

03 | IMPACTS PRODUCED BY CATEGORY.

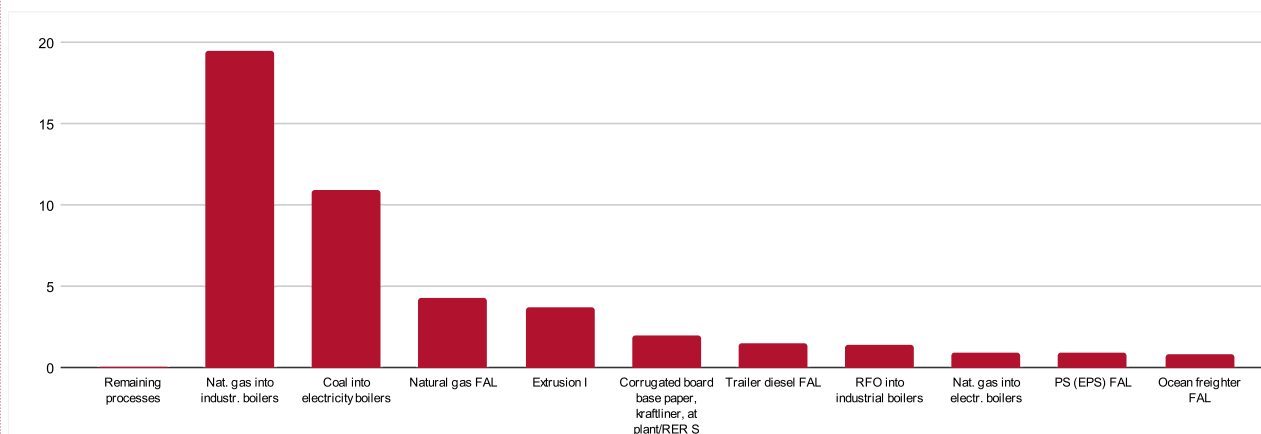
WE REFLECT THE FIVE SUBSTANCES THAT HAVE THE MOST IMPACT IN EACH CATEGORY

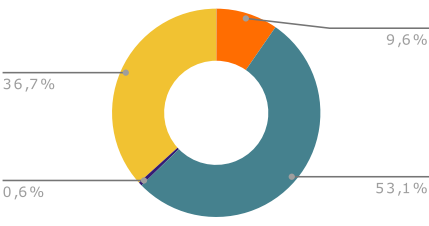
Impact category	Substance	Unit	Total
ACIDIFICATION			
	Remaining substances	kg SO2 eq	0,0004325822549
	Nitrogen oxides	kg SO2 eq	0,09515711482
	Sulfur dioxide	kg SO2 eq	0,005593315973
	Sulfur oxides	kg SO2 eq	0,5883657012
	TOTAL (100%)	kg SO2 eq	0,6895487142

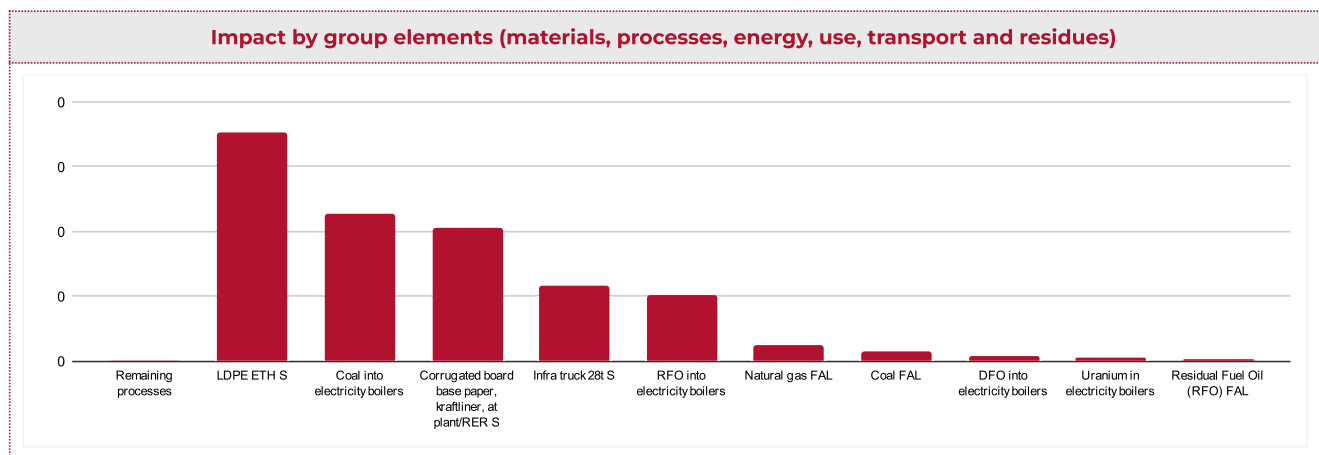
Impact category	Substance	Unit	Total
EUTROPHICATION			
	Remaining substances	kg PO4--- eq	0,0000315602285
	Nitrogen oxides	kg PO4--- eq	0,02474084985
	COD, Chemical Oxygen Demand	kg PO4--- eq	0,001312451715
	Phosphate	kg PO4--- eq	0,0004922813617
	Phosphorus	kg PO4--- eq	0,0003513138998
	Nitrogen	kg PO4--- eq	0,0003053774012
	TOTAL (100%)	kg SO2 eq	0,02766225015

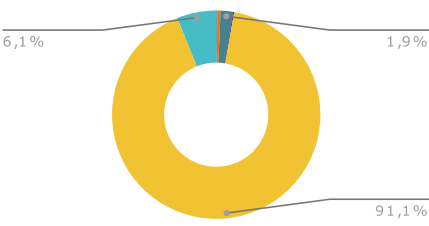
Impact category	Substance	Unit	Total
GLOBAL WARMING			
	Remaining substances	kg CO2 eq	0,02603459091
	Carbon dioxide, fossil	kg CO2 eq	42,86320767
	Carbon dioxide	kg CO2 eq	3,9896721
	Methane	kg CO2 eq	2,556252588
	Carbon monoxide	kg CO2 eq	0,135214415
	Methane, fossil	kg CO2 eq	0,07101455732
	TOTAL (100%)	kg SO2 eq	49,71131852

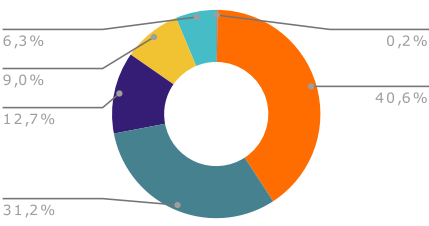
Impact by group elements (materials, processes, energy, use, transport and residues)



Impact category	Substance	Unit	Total
REDUCTION OF THE OZONE LAYER			
	Remaining substances	kg CFC-11 eq	0,00000000044473
	Methane, bromochlorodifluoro-, Halon 1211	kg CFC-11 eq	0,0000001016271828
	Methane, bromotrifluoro-, Halon 1301	kg CFC-11 eq	0,0000005627238947
	Methane, chlorodifluoro-, HCFC-22	kg CFC-11 eq	0,00000006207513489
	Methane, tetrachloro-, CFC-10	kg CFC-11 eq	0,0000003888894227
	TOTAL (100%)	kg SO2 eq	0,000001059892745



Impact category	Substance	Unit	Total
PHOTOCHEMICAL OXIDATION			
	Remaining substances	kg C2H4 eq	0,0007522544023
	Carbon monoxide	kg C2H4 eq	0,002325343442
	Hydrocarbons, unspecified	kg C2H4 eq	0,008993840285
	Methane	kg C2H4 eq	0,0006668485013
	NMVOC, non-methane volatile organic compounds, unspecified origin	kg C2H4 eq	0,4212939541
	Sulfur oxides	kg C2H4 eq	0,02824155366
	TOTAL (100%)	kg SO2 eq	0,4622737944

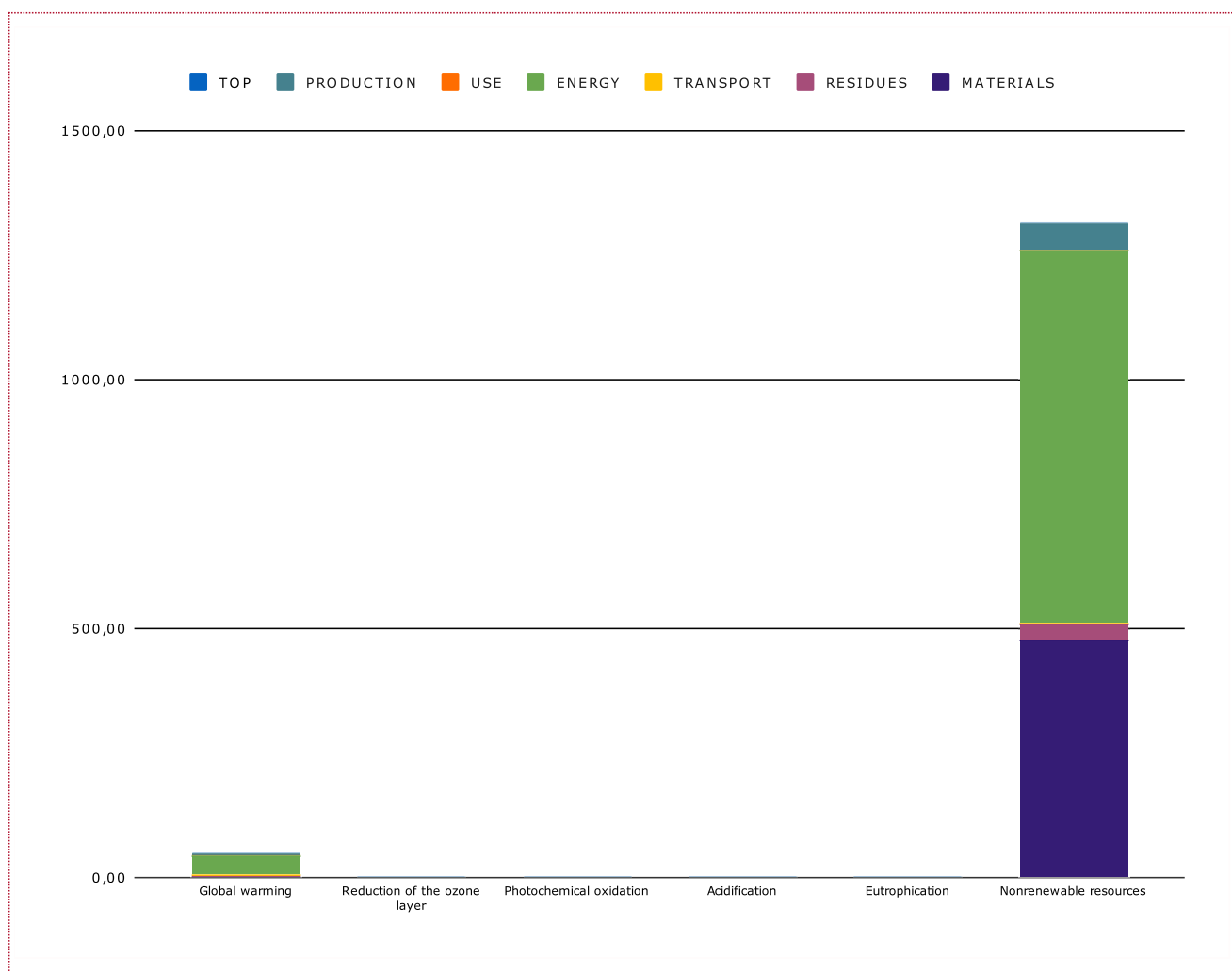
Impact category	Substance	Unit	Total
NONRENEWABLE RESOURCES			
	Remaining substances	MJ eq	2,207566731
	Gas, natural, 46.8 MJ per kg, in ground	MJ eq	475,9054115
	Oil, crude, feedstock, 42 MJ per kg, in ground	MJ eq	365,5764
	Coal, 26.4 MJ per kg, in ground	MJ eq	148,4763776
	Gas, natural, feedstock, 46.8 MJ per kg, in ground	MJ eq	105,79608
	Oil, crude, 42 MJ per kg, in ground	MJ eq	73,91648594
	TOTAL (100%)	kg SO2 eq	1314,001513

WASTE	TOTAL NON-DANGEROUS	kg	4,3243
	TOTAL DANGEROUS	kg	0,0001

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	49,71	0,00	3,76	0,00	40,11	2,77	1,97	1,10
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	0,46	0,00	0,01	0,00	0,13	0,00	0,00	0,32
Acidification	kg SO2 eq	0,69	0,00	0,05	0,00	0,52	0,01	0,01	0,10
Eutrophication	kg PO4--- eq	0,03	0,00	0,00	0,00	0,02	0,00	0,00	0,00
Nonrenewable resources	MJ eq	1314,00	0,00	51,94	0,00	749,35	2,18	34,56	475,96



05 | ECODSIGN IMPROVEMENTS CONSIDERED

PRODUCT ECODSIGN STRATEGY	CHOSEN OPTIONS WITH THE PRODUCT
Selection of low impact materials	Percentage of recycled material used: 99,57%
	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 energy use in the manufacturing process: heat recovery in the painted process, automated manufacturing systems for energy saving.
Optimization of the distribution system	Packaging in flat packages for space optimization.
	Modular system for maximum use and combination of different program models.
Optimization of product life	15 years Minimum duration product.
	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 your useful life.
Optimization of the end of system life	Percentage of recyclability: 99,58%
	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.