

EPD Environmental Product Declaration

LINK SCREEN

Ref. LK17118M14

Report Data 20.05.2015

Certificates

ISO 9001:2008

ISO 14001:2004

ISO 14006. Ecodiseño

PEFC. Programme for the Endorsement of Forest Certification

FSC. Forest Stewardship Council

GBCe. Green Building Council Spain



1. Details of the system

Type New Product ☒ Redesign ☐ Studied Year 2015

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 |
| Coarrugated Board | 2,636 | 8,12% | Bibliographic data | Bibliographic data |
| Aluminium | 0,132 | 0,41% | Bibliographic data | Bibliographic data |
| Steel | 2,456 | 7,57% | Bibliographic data | Bibliographic data |
| Plastic | 0,921 | 2,84% | Bibliographic data | Bibliographic data |
| Wood | 25,836 | 79,62% | Bibliographic data | Bibliographic data |
| Others | 0,47 | 1,45% | Bibliographic data | Bibliographic data |
| TOTAL | 32,451 | 100,00% | | |
| % recycled materials | | 72,22% | | |
| % recyclable materials | | 95,71% | | |

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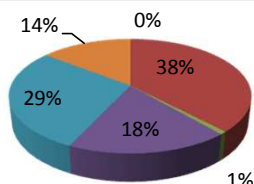
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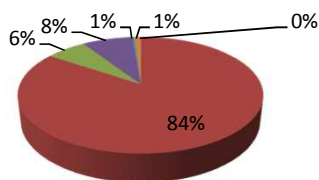
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3. Impacts produced by category. Five substances area included in each category have the greatest impact in each category

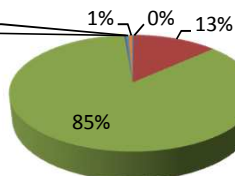
| Impact category | Substance | Unit | Total |
|----------------------|------------------------|------------------|--------------------|
| ACIDIFICATION | Substancias remanentes | kg SO2 eq | 1,11022E-16 |
| | Ammonia | kg SO2 eq | 0,273505416 |
| | Nitrogen dioxide | kg SO2 eq | 0,0055836 |
| | Nitrogen oxides | kg SO2 eq | 0,13241116 |
| | Sulfur dioxide | kg SO2 eq | 0,206038722 |
| | Sulfur oxides | kg SO2 eq | 0,104461081 |
| | TOTAL | kg SO2 eq | 0,721999979 |



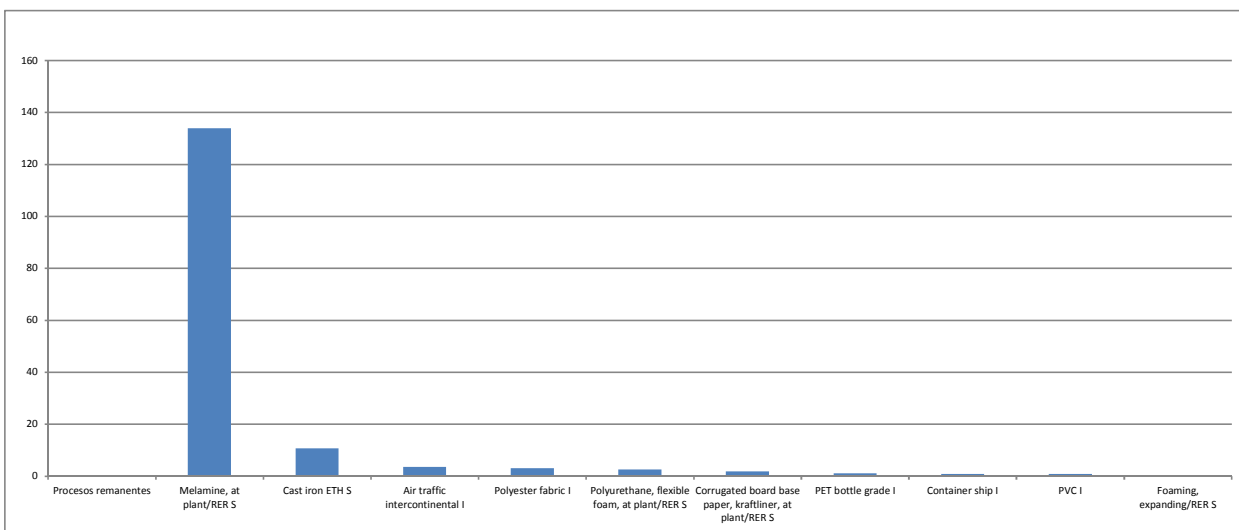
| Impact category | Substance | Unit | Total |
|----------------------|-----------------------------|------------------|--------------------|
| EUTROFIZATION | Substancias remanentes | kg PO4--- eq | 6,0867E-05 |
| | Ammonia | kg PO4--- eq | 0,05982931 |
| | Ammonium, ion | kg PO4--- eq | 0,004484648 |
| | COD, Chemical Oxygen Demand | kg PO4--- eq | 0,005585277 |
| | Dinitrogen monoxide | kg PO4--- eq | 0,000269527 |
| | Nitrate | kg PO4--- eq | 0,00071165 |
| | TOTAL | kg SO2 eq | 0,114151833 |



| Impact category | Substance | Unit | Total |
|-----------------------|-------------------------|------------------|--------------------|
| GLOBAL WARMING | Substancias remanentes | kg CO2 eq | 0,3899858 |
| | Carbon dioxide | kg CO2 eq | 19,9138414 |
| | Carbon dioxide, fossil | kg CO2 eq | 129,7620325 |
| | Carbon monoxide, fossil | kg CO2 eq | 0,359795193 |
| | Dinitrogen monoxide | kg CO2 eq | 0,613693261 |
| | Methane | kg CO2 eq | 1,034047805 |
| | TOTAL | kg SO2 eq | 159,8241103 |



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



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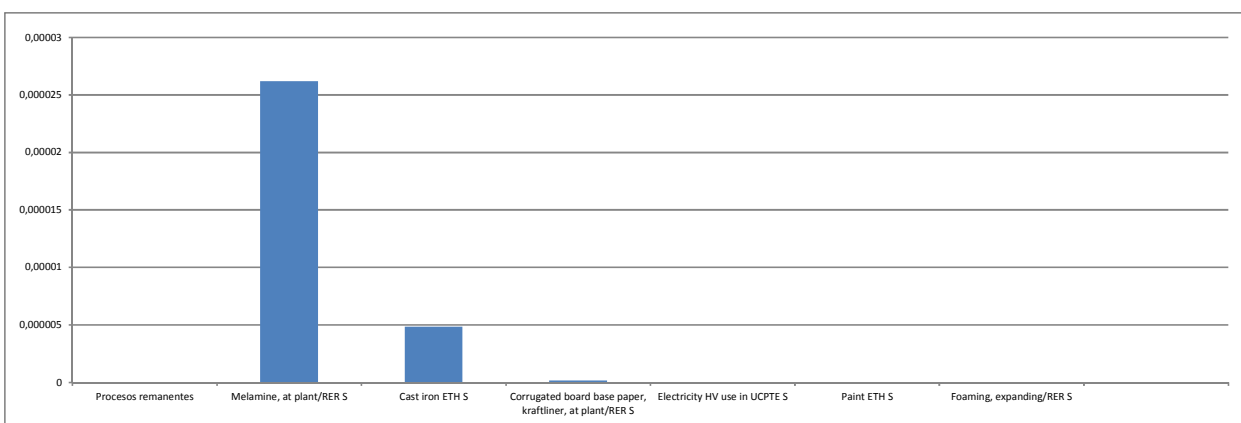
Ref. LK17118M14

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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 | 1,12359E-08 |
| | Methane, bromochlorodifluoro-, Halon 1211 | kg CFC-11 eq | 2,08347E-05 |
| | Methane, bromotrifluoro-, Halon 1301 | kg CFC-11 eq | 9,31834E-06 |
| | Methane, chlorodifluoro-, HCFC-22 | kg CFC-11 eq | 1,15148E-06 |
| | Methane, tetrachloro-, CFC-10 | kg CFC-11 eq | 9,49418E-08 |
| | | | |
| | 0 | 0 | 0 |
| TOTAL | | kg SO2 eq | 3,14107E-05 |

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



| Impact category | Substance | Unit | Total |
|--------------------|---------------------------|------------|-------------|
| PHOTOCHEMICAL SMOG | Substancias remanentes | kg C2H4 eq | 0,000490199 |
| | Benzene | kg C2H4 eq | 0,000179237 |
| | Butane | kg C2H4 eq | 0,000778724 |
| | Carbon monoxide | kg C2H4 eq | 0,002403206 |
| | Carbon monoxide, biogenic | kg C2H4 eq | 0,00017864 |
| | Carbon monoxide, fossil | kg C2H4 eq | 0,006187561 |
| | | | |
| TOTAL | | kg SO2 eq | 0,107330854 |

| Impact category | Substance | Unit | Total |
|-------------------------|-------------------------------------|-----------|-------------|
| NON-RENEWABLE RESOURCES | Substancias remanentes | MJ eq | 13,00848672 |
| | Coal, 18 MJ per kg, in ground | MJ eq | 88,67284033 |
| | Coal, 29.3 MJ per kg, in ground | MJ eq | 3,495051695 |
| | Coal, brown, 8 MJ per kg, in ground | MJ eq | 3,201734879 |
| | Coal, brown, in ground | MJ eq | 76,07349547 |
| | Coal, hard, unspecified, in ground | MJ eq | 133,9728991 |
| | | | |
| TOTAL | | kg SO2 eq | 3017,103136 |

| | | | |
|-------|--------------------|----|--------|
| WASTE | Total NO HAZARDOUS | KG | 10,5 |
| | Total HAZARDOUS | KG | 0,0388 |

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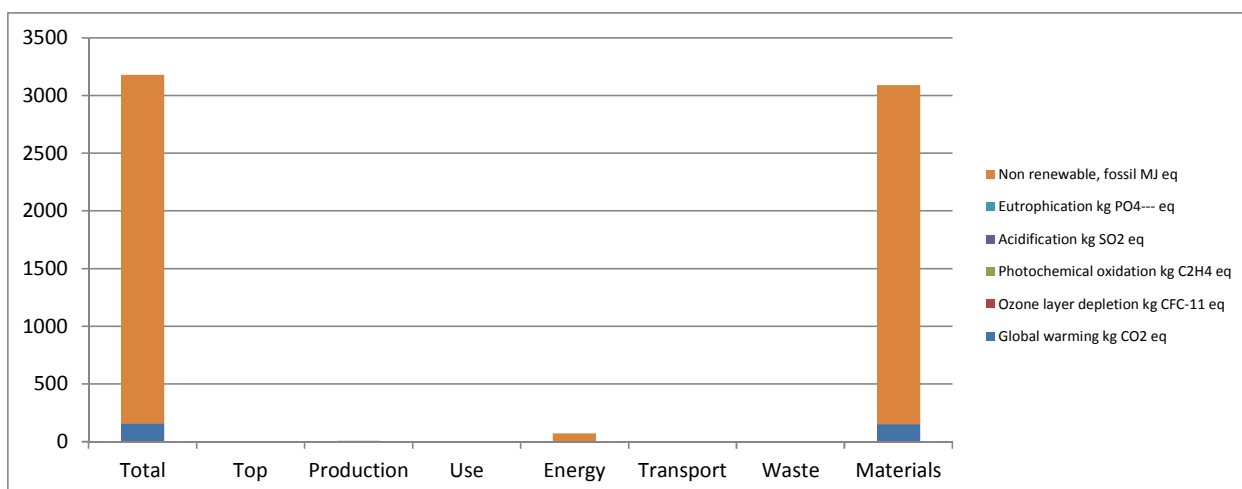
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5. Impact produced by life cycle stage. In includes six stages: Production, Use, Energy, Transport, Waste and Materials.

| Impact Category | Uts. | Total | Top | Production | Use | Energy | Trsp. | Waste | Mat. |
|-----------------|--------------|-------------|-----|-------------|-----|-------------|-------|-------|-------|
| #jREF! | kg CO2 eq | 159,8241103 | 0 | 0,372560098 | 0 | 0,631634813 | 4,713 | 0 | 154,1 |
| #jREF! | kg CFC-11 eq | 3,14107E-05 | 0 | 3,63017E-08 | 0 | 4,96543E-08 | 2E-09 | 0 | 3E-05 |
| #jREF! | kg C2H4 eq | 0,107330854 | 0 | 0,003418853 | 0 | 0,001631874 | 0,003 | 0 | 0,099 |
| #jREF! | kg SO2 eq | 0,721999979 | 0 | 0,001667308 | 0 | 0,005759103 | 0,032 | 0 | 0,683 |
| #jREF! | kg PO4--- eq | 0,114151833 | 0 | 9,42938E-05 | 0 | 0,000599593 | 0,004 | 0 | 0,109 |
| #jREF! | MJ eq | 3017,103136 | 0 | 8,845942421 | 0 | 73,83285713 | 0,029 | 0 | 2934 |



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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 ECODSIGN | CHOICES |
|--|---|
| Low impact materials selection | Designed to be manufactured with 72% 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: 96% |
| | 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.

| DIVISORIA LINK (LK1) | Peso (Kg.) | % contribución sobre total | Reciclable | | Recic |
|----------------------|----------------|----------------------------|------------|--------------|---------------|
| Coarrugated Board | 2,636 | 8,12% | 100% | 2,636 | 100% |
| Aluminium | 0,132 | 0,41% | 100% | 0,132 | 100% |
| Steel | 2,456 | 7,57% | 100% | 2,456 | |
| Plastic | 0,921 | 2,84% | | 0 | |
| Wood | 25,836 | 79,62% | 100% | 25,836 | 80% |
| Others | 0,47 | 1,45% | | 0 | |
| TOTAL | 32,4510 | 100,00% | | 31,06 | 95,71% |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|-----------|-------------|
| | | El total de todos los | kg SO2 eq | 0,721999979 |
| | | Substancias remane | kg SO2 eq | 1,11022E-16 |
| | 1 | Ammonia | kg SO2 eq | 0,273505416 |
| | 2 | Nitrogen dioxide | kg SO2 eq | 0,0055836 |
| | 3 | Nitrogen oxides | kg SO2 eq | 0,13241116 |
| | 4 | Sulfur dioxide | kg SO2 eq | 0,206038722 |
| | 5 | Sulfur oxides | kg SO2 eq | 0,104461081 |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|--------------|-------------|
| | | El total de todos los | kg PO4--- eq | 0,114151833 |
| | | Substancias remane | kg PO4--- eq | 6,0867E-05 |
| | 1 | Ammonia | kg PO4--- eq | 0,05982931 |
| | 2 | Ammonium, ion | kg PO4--- eq | 0,004484648 |
| | 3 | COD, Chemical Oxyg | kg PO4--- eq | 0,005585277 |
| | 4 | Dinitrogen monoxid | kg PO4--- eq | 0,000269527 |
| | 5 | Nitrate | kg PO4--- eq | 0,00071165 |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|-----------|-------------|
| | | El total de todos los | kg CO2 eq | 159,8241103 |
| | | Substancias remane | kg CO2 eq | 0,3899858 |
| | 1 | Carbon dioxide | kg CO2 eq | 19,9138414 |
| | 2 | Carbon dioxide, foss | kg CO2 eq | 129,7620325 |
| | 3 | Carbon monoxide, fi | kg CO2 eq | 0,359795193 |
| | 4 | Dinitrogen monoxid | kg CO2 eq | 0,613693261 |
| | 5 | Methane | kg CO2 eq | 1,034047805 |

| | Num | Proceso | Proyecto | DQI | Unidad | Total |
|--|-----|------------------------|-----------------------------|-----|-----------|-------------|
| | | El total de todos los | | | kg CO2 eq | 159,8241103 |
| | | Procesos remanente | | | kg CO2 eq | 0,356739951 |
| | 1 | Melamine, at plant/ | Ecoinvent system processe | | kg CO2 eq | 133,9800992 |
| | 2 | Cast iron ETH S | ETH-ESU 96 System proces -- | | kg CO2 eq | 10,62129969 |
| | 3 | Air traffic interconti | IDEMAT 2001 -- | | kg CO2 eq | 3,526874912 |
| | 4 | Polyester fabric I | IDEMAT 2001 -- | | kg CO2 eq | 3,02942307 |
| | 5 | Polyurethane, flexib | Ecoinvent system processe | | kg CO2 eq | 2,533842612 |
| | 6 | Corrugated board b | Ecoinvent system processe | | kg CO2 eq | 1,768484893 |
| | 7 | PET bottle grade I | IDEMAT 2001 -- | | kg CO2 eq | 1,1083822 |
| | 8 | Container ship I | IDEMAT 2001 -- | | kg CO2 eq | 0,846177845 |
| | 9 | PVC I | IDEMAT 2001 -- | | kg CO2 eq | 0,814725714 |
| | 10 | Foaming, expanding | Ecoinvent system processe | | kg CO2 eq | 0,372560098 |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|--------------|-------------|
| | | El total de todos los | kg CFC-11 eq | 3,14107E-05 |
| | | Substancias remane | kg CFC-11 eq | 1,12359E-08 |
| | 1 | Methane, bromochl | kg CFC-11 eq | 2,08347E-05 |
| | 2 | Methane, bromotrif | kg CFC-11 eq | 9,31834E-06 |
| | 3 | Methane, chlorodifl | kg CFC-11 eq | 1,15148E-06 |
| | 4 | Methane, tetrachlor | kg CFC-11 eq | 9,49418E-08 |

| | No | Proceso | Proyecto | DQI | Unidad | Total |
|--|----|---|-----------------------------|-----|--------------|-------------|
| | | El total de todos los | | | kg CFC-11 eq | 3,14107E-05 |
| | | Procesos remanente | | | kg CFC-11 eq | 3,90146E-08 |
| | 1 | Melamine, at plant/ Ecoinvent system processe | | | kg CFC-11 eq | 2,61992E-05 |
| | 2 | Cast iron ETH S | ETH-ESU 96 System proces -- | | kg CFC-11 eq | 4,85603E-06 |
| | 3 | Corrugated board b: Ecoinvent system processe | | | kg CFC-11 eq | 1,84499E-07 |
| | 4 | Electricity HV use in ETH-ESU 96 System proces -- | | | kg CFC-11 eq | 4,83199E-08 |
| | 5 | Paint ETH S | ETH-ESU 96 System proces -- | | kg CFC-11 eq | 4,73565E-08 |
| | 6 | Foaming, expanding Ecoinvent system processe | | | kg CFC-11 eq | 3,63017E-08 |
| | 7 | | | | | |
| | 8 | | | | | |
| | 9 | | | | | |
| | 10 | | | | | |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|------------|-------------|
| | | El total de todos los | kg C2H4 eq | 0,107330854 |
| | | Substancias remane | kg C2H4 eq | 0,000490199 |
| | 1 | Benzene | kg C2H4 eq | 0,000179237 |
| | 2 | Butane | kg C2H4 eq | 0,000778724 |
| | 3 | Carbon monoxide | kg C2H4 eq | 0,002403206 |
| | 4 | Carbon monoxide, b | kg C2H4 eq | 0,00017864 |
| | 5 | Carbon monoxide, fi | kg C2H4 eq | 0,006187561 |

| | Num | Sustancia | Unidad | Total |
|--|-----|-----------------------|--------|-------------|
| | | El total de todos los | MJ eq | 3017,103136 |
| | | Substancias remane | MJ eq | 13,00848672 |
| | 1 | Coal, 18 MJ per kg, i | MJ eq | 88,67284033 |
| | 2 | Coal, 29.3 MJ per kg | MJ eq | 3,495051695 |
| | 3 | Coal, brown, 8 MJ p | MJ eq | 3,201734879 |
| | 4 | Coal, brown, in grou | MJ eq | 76,07349547 |
| | 5 | Coal, hard, unspecifi | MJ eq | 133,9728991 |

¡ CAMBIAR EN CADA EPD!

| | Categoría de impacto | Unit | Total | Top | Production | Use |
|--|-----------------------|--------------|-------------|-----|-------------|-----|
| | Global warming | kg CO2 eq | 159,8241103 | 0 | 0,372560098 | 0 |
| | Ozone layer depletior | kg CFC-11 eq | 3,14107E-05 | 0 | 3,63017E-08 | 0 |
| | Photochemical oxidat | kg C2H4 eq | 0,107330854 | 0 | 0,003418853 | 0 |
| | Acidification | kg SO2 eq | 0,721999979 | 0 | 0,001667308 | 0 |
| | Eutrophication | kg PO4--- eq | 0,114151833 | 0 | 9,42938E-05 | 0 |
| | Non renewable, fossil | MJ eq | 3017,103136 | 0 | 8,845942421 | 0 |

¡ CAMBIAR EN CADA EPD!

SÓLO CUANDO HAY MADERA.

¡ CAMBIAR EN CADA EPD!

| | |
|----------------|---------------|
| clado | |
| 2,636 | |
| 0,132 | |
| 0 | |
| 0 | |
| 20,6688 | |
| 0 | |
| 23,4368 | 72,22% |

| Top | Producción | Uso | Energía | Transporte | Residuos | Materiales |
|-----|-------------|-----|-------------|-------------|----------|-------------|
| x | 0,372560098 | x | 0,631634813 | 4,712553854 | x | 154,1073615 |
| x | 0 | x | 0,104496362 | 0,001139488 | x | 0,251104101 |
| x | x | x | x | x | x | 133,9800992 |
| x | x | x | x | x | x | 10,62129969 |
| x | x | x | x | 3,526874912 | x | x |
| x | x | x | x | x | x | 3,02942307 |
| x | x | x | x | x | x | 2,533842612 |
| x | x | x | x | x | x | 1,768484893 |
| x | x | x | x | x | x | 1,1083822 |
| x | x | x | x | 0,846177845 | x | x |
| x | x | x | x | x | x | 0,814725714 |
| x | 0,372560098 | x | x | x | x | x |

| Top | Producción | Uso | Energía | Transporte | Residuos | Materiales |
|-----|-------------|-----|-------------|-------------|----------|-------------|
| x | 3,63017E-08 | x | 4,96543E-08 | 1,55775E-09 | x | 3,13232E-05 |
| x | | 0 | 1,33444E-09 | 1,55775E-09 | x | 3,61224E-08 |
| x | x | x | x | x | x | 2,61992E-05 |
| x | x | x | x | x | x | 4,85603E-06 |
| x | x | x | x | x | x | 1,84499E-07 |
| x | x | x | 4,83199E-08 | x | x | x |
| x | x | x | x | x | x | 4,73565E-08 |
| x | 3,63017E-08 | x | x | x | x | x |

| Energy | Transport | Waste | Materials |
|-------------|-------------|-------|-------------|
| 0,631634813 | 4,712553854 | 0 | 154,1073615 |
| 4,96543E-08 | 1,55775E-09 | 0 | 3,13232E-05 |
| 0,001631874 | 0,003116688 | 0 | 0,099163441 |
| 0,005759103 | 0,032003098 | 0 | 0,682570469 |
| 0,000599593 | 0,004476284 | 0 | 0,108981662 |
| 73,83285713 | 0,029125247 | 0 | 2934,395211 |