



THE GREEN YARDSTICK



# ENVIRONMENTAL PRODUCT DECLARATION

In accordance with EN 15804 and ISO 14025

# **Ecophon Focus**<sup>TM</sup>



Programme: The International EPD® System, www.environdec.com

Programme operator: EPD International AB

Version: 1.0

Registration number: S-P-03223

Date of publication (issue): 2021-03-05 Date of revision: 2022-03-07 Date of validity: 2026-03-05

In accordance with ISO 14025, ISO 21930 and EN 15804





# **Summary Environmental product declaration**

| Verified by (external third-party               | Martin Erlandsson, IVL Swedish Environmental Research Institute  |
|---|--|
| verifier)                                       | Manuficulariasson, MESwedish Environmental Research Institute  |
| Programme used                                  | The International EPD System. For more information see www.environdec.com  |
| Registration No                                 | S-P-03223  |
| Owners declaration by                           | Saint-Gobain Ecophon AB<br>Box 500<br>265 03 Hyllinge<br>Sweden  |
| Declaration as construction products            | The products to be verified herein are acoustic glass wool panels made for sound absorbing ceilings.  The present environmental product declaration complies with standard ISO 14025 and describes the environmental impact. Its purpose is to promote compatible and sustainable environmental development of related construction methods.  Reference PCR document: EN 15804 as the core PCR + International EPD System Product Category Rules - PCR for constructions products and construction services, Acoustical systems solutions (sub-oriented PCR; appendix to PCR 2012:01) - previously Acoustic ceilings. EPD of construction products |
| Validity  | may not be comparable if they do not comply with EN 15804.   |
| Content of the declaration                      | This is an environmental product declaration containing environmental information of the product in the Ecophon family Focus. The values presented in this EPD are represented for the following products:  Focus A, Focus B, Focus C, Focus Ds, Focus Dg, Focus D/A, Focus E, Focus F, Focus Lp, Focus SQ, Focus Flexiform  |
|   | Supplemental product information can be found at www.ecophon.com   |
| UN CPC (Central Product<br>Classification) CODE | 3 <i>7</i> 990<br>3 <i>7</i> 129   |
| Issued date                                     | 2021-03-05   |

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## **Product description**

#### Product description and description of use:

This Environmental Product Declaration (EPD) describes the environmental impact of 1 m<sup>2</sup> of acoustic ceiling with the intended use to increase sound absorption in a room to create a better indoor environment.

This Environmental Product Declaration (EPD) are valid for products produced in Ecophon production plants in Sweden, Denmark, Poland and Finland with a high-quality glass wool in different densities and thicknesses. The glass wool is covered with a painted or woven surface layer and cut into panels of different sizes and edge designs. The edges are painted and the panels are packed in cardboard boxes.

The structure of glass wool gives the material excellent sound energy absorption properties. Sound absorption is the main function of acoustic glass wool panels. The panels are also light, stable, and easy to handle and cut.

Acoustic glass wool panels are commonly used in schools, offices, health care facilities and production premises where there is a need for noise reduction to improve the working environment. The decrease in reverberation time, sound pressure level and other acoustic parameters are related to the amount of panels used in the room as well as the placement of the panels. The acoustic panels need no maintenance and do not age. They can last as long as the building itself. For aesthetic reasons, normal room surface cleaning is advised.

#### Description of the main product components and materials for 1 m<sup>2</sup> of product:

| Parameter         | Value (Weight in %) | Post-consumer recycled content |
|-------------------|---------------------|--------------------------------|
| Product thickness | 20-40 mm            |                                |
| Glass wool        | 83%-91%             | 70%                            |
| Waterborne paint  | 2% - 3%             | -                              |
| Glass tissue      | 7% - 12%            |                                |
| Waterborne glue   | 2% - 3%             | -                              |
| Plastic wrapping  | 30 g                | -                              |

|                   | Total weights |         |     |    |          |           |         |          |         |          |          |  |  |  |
|-------------------|---------------|---------|-----|----|----------|-----------|---------|----------|---------|----------|----------|--|--|--|
| Focus Focus       |               |         |     |    |          |           |         |          |         |          |          |  |  |  |
| Product           | Focus A       | Focus B | С   | Ds | Focus Dg | Focus D/A | Focus E | Focus Ez | Focus F | Focus Lp | Focus SQ |  |  |  |
| Total weight [kg] | 1,5           | 2,7     | 2,3 |    | 2,3      | 1,9       |         | 2 3      | ,5 2,6  | 3 2,4    | 2,7      |  |  |  |

All raw materials contributing more than 5% to any environmental impact are listed in the table above. The panels are free from substances of very high concern (SVHC). The product contains no substances from the REACH Candidate list (of 15.06.2018).

If there in future occur production changes that generate an increased impact larger than 10% the EPD will be updated and re-verified.

## Other environmental indicators

Regarding the indoor environment, the Focus products are certified for or fulfil regulations according to the following table:

| Certificate and Regulations |  |
|-----------------------------|--|
| Finnish M1                  |  |
| Eurofins Indoor Air Comfort |  |

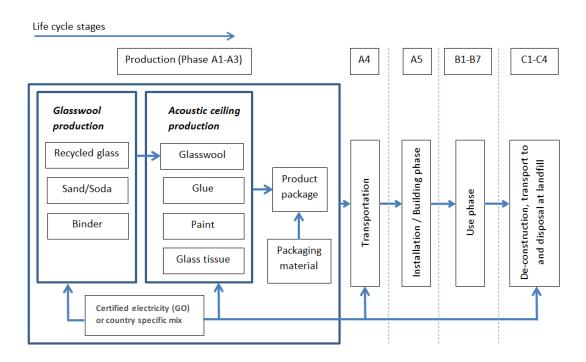
### LCA calculation information

| Declared unit                         | 1 m² of acoustic celling panel.   |
|---------------------------------------|---|
| Functional unit                       | 1 m² acoustic ceiling with sound absorption class A installed at an ODS of 200mm according to ISO 354.  |
| System boundaries                     | Cradle to grave: Mandatory stages = A1-3, A4-5, B1-7, C1-4 and optional stage = D  This EPD covers the environmental impact of acoustic panels without grid or suspension system.   |
| Reference Service Life (RSL)          | 50 years  |
| Cut-off rules                         | The use of cut-off criterion on mass inputs and primary energy at the unit process level (1%) and at the information module level (5%).  Flows related to human activities such as employee transport are excluded.  Biogenic carbon has not been included in calculations.  The construction of plants, production of machines and transportation systems are excluded since the related flows are supposed to be negligible compared to the production of the building product when compared at these systems lifetime level. |
| Allocations                           | Allocation criteria are based on mass.  |
| Geographical coverage and time period | For A1-A3: Global<br>For A4: European covering<br>(2019)  |

According to EN 15804, EPD of construction products might not be comparable if they do not comply with this standard. According to ISO 21930, EPD's might not be comparable if they are from different EPD administrating schemes.

## Life Cycle stages

### Flow diagram of the Life Cycle





#### Product stage, A1-A3

#### Description of the stage:

The product stage of the glass wool products is divided into 3 modules: A1 "Raw material and supply", A2 "Transport to the manufacturer" and A3 "Manufacturer". The aggregation of the modules A1, A2 and A3 is a possibility considered by the EN 15 804 standard. This rule is applied in this EPD.

#### A1 Raw material supply

This module takes into account the extraction and processing of all raw materials and energy which occur upstream to the studied manufacturing process.

Specifically, the glass wool raw material supply covers production of the binder components and sourcing (quarry) of raw materials for fiber production, e.g. sand and borax. Besides these raw materials, recycled materials (glass cullet) are also used as input. Other major raw materials are paint, glass tissue and glue which also are included in the calculation. All electricity is taken account for in (GOs) or at least country specific mix.

#### A2 Transport to the manufacturer

The raw materials are transported to the manufacturing site. In our case, the modelling includes: road, boat or train transportations (average values) of each raw material.

#### A3 Manufacturing

The manufacturing includes two steps; glass wool production and glass wool panel production. The glass wool panels are produced in a continuous online process starting with applying glass tissue on the glass wool baseboard. The panels are cut into correct size and the edges of the panels are painted. After drying the panels are packed in cardboard boxes.

Manufacturing covers all processes linked to production, which comprises various related operations besides on-site activities such as grinding, painting and drying, packaging and internal transportation. The manufacturing process also yields data on the combustion of refinery products, such as natural gas, diesel and gasoline, related to the production process.

The environmental profile of these energy carriers is modelled for local conditions. Packaging-related flows in the production process and all up-stream packaging are included in the manufacturing module, i.e. wooden pallets, cardboard and PE-film. Apart from production of packaging material, the supply and transport of packaging material are also considered in the LCA model. They are reported and allocated to the module where the packaging is applied. Data on packaging waste created during this step is then generated. It is assumed that packaging waste generated in the course of production and up-stream processes is 100% collected and either recycled or incinerated with energy recovery, related to material and quality, in ratios according to the local material handling companies.

The glass wool raw material is supplied from three different external locations to all four Ecophon production sites. A representative electricity mix for glass wool production in each country of origin was used. The finished product can be produced in any of Ecophon's four production sites, the split was calculated by mass allocation from production data for year 2019 for all sites involved.

#### Construction process stage, A4-A5

#### Description of the stage:

The construction process is divided into 2 modules: A4 "Transport to the building site" and A5 "Installation in the building.

#### Description of scenarios and additional technical information:

#### A4 Transport to the building site

This module includes transport from the production gate to the building site. Transport is calculated on the basis of a scenario with the parameters described in the following table.

| Parameter   | Value   |
|---|---|
| Fuel type, consumption of fuel and vehicle or vehicle type used for transport | Average truck trailer with a 24t payload, diesel consumption 38 litres for 100 km |
| Distance  | 475 km (based on transports in 2019)  |
| Capacity utilisation (including empty returns)                                | 100% of the capacity in volume  |
| Capacity units ation (including empty terums)                                 | 30% of empty returns  |
| Bulk density of transported products (if available)                           | 54 - 98 kg/m³   |
| Volume capacity utilisation factor (if available)                             | 1   |

The transport distance has been calculated from a European average transport for Ecophon in 2019 following the parameters in table above.

#### A5:1 Installation in the building

This module includes waste of products during the implementation, i.e. the additional production processes to compensate the loss and the waste processing which occur in this stage.

Scenarios used for quantity of product wastage and waste processing are:

| Parameter  | Value   |
|--|---|
| Waste of materials on the building site before waste processing, generated by the product's installation                   | 5%  |
| Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, | Packaging waste is 100 % collected and modelled as recovered matter |
| for energy recovering, disposal  | Ceiling panel losses are landfilled                                 |

#### A5:2 Energy usage

As a general figure the time to install  $1\,\mathrm{m}^2$  ceiling is considered to be 20 minutes. During this time the installer is considered to use handheld appliances for about 5% of this time which in this case results in 1 minute. A handheld device such as a cordless screwdriver is considered to have a power of 0.7 kilowatt. Therefore, in one minute it will consume a total energy of 0.7\*60 = 4.2 kilojoule = 0.0042 MJ, per  $\mathrm{m}^2$  ceiling. In this context it is a negligible contribution and will not be part of the LCA calculation (lower than 0.1% of the total energy consumption).

#### Use stage (excluding potential savings), B1-B7

#### Description of the stage:

The use stage is divided into 7 modules, B1 "Use", B2 "Maintenance", B3 "Repair", B4 "Replacement", B5 "Refurbishment", B6 "Operational energy use", B7 "Operational water use"

#### Description of scenarios and additional technical information:

Once installation is complete, no actions or technical operations are required during the use stages until the end of life stage. Therefore, glass wool ceiling panels have no impact (excluding potential energy savings) on this stage.

#### End-of-life stage C1-C4

#### Description of the stage:

The end-of life stage is divided into 4 modules; C1 "De-construction, demolition", C2 "Transport to waste processing", C3 "Waste processing for reuse, recovery and/or recycling", C4 "Disposal".

#### Description of scenarios and additional technical information:

#### C1, De-construction, demolition

The de-construction and/or dismantling of glass wool ceiling panels take part during the renovation of the building or the demolition of the entire building. In our case, the environmental impact is assumed to be very small and can be neglected.

#### C2, Transport to waste processing

The model for transportation (see A4, Transportation to the building site) is applied.

#### C3, Waste processing for reuse, recovery and/or recycling;

The product is considered to be landfilled without reuse, recovery or recycling.

#### C4, Disposal;

The product is assumed to be 100% landfilled.

| Parameter  | Value/description  |
|--|--|
| Collection process specified by type                       | 1440-2410g of acoustic ceiling (collected with mixed construction waste)   |
| Recovery system specified by type                          | No reuse, recycling or energy recovery   |
| Disposal specified by type                                 | 1080 - 1960g of acoustic ceiling is landfilled   |
| Assumptions for scenario development (e.g. transportation) | Average truck trailer with a 24t payload, diesel consumption 38 litres for 100 km  200 km (distance to landfill) |

#### Reuse/recovery/recycling potential, D

#### Description of scenarios and additional technical information:

Packaging waste from module A5 is reported in this module as recovered matter.

### **LCA** results

LCA model, aggregation of data and environmental impact are calculated from the GABI SP40 software – mostly Ecoinvent 3.6 datasets and some Gabi datasets.

Raw materials and energy consumption, as well as transport distances have been taken directly from the manufacturing plant of Saint-Gobain Ecophon in 2019.

Summary of the LCA results are detailed in the tables below.

All results in the EPD are written in logarithmic base of ten. Reading example:  $5.2E - 0.03 = 5.2 \times 10^3 = 0.0052$ .

MND (module not declared), is equal to MNA (module not assessed).

Modules declared, geographical scope, and share of specific data (in GWP indicator) are stated in the following table. For stages A1-A3 (largest contribution to total GWP), the raw materials are modelled with very low amount of generic data – over 90% of the GWP comes from specific data.

|                     | Pro  | Product phase  |                      |                                | Construction<br>process phase |     |             | Use phase End of life phase |             |               |                        | End of life phase     |                            | Resou<br>rce<br>recov<br>ery<br>phase |                   |                   |                                    |
|---------------------|--|--|----------------------|--------------------------------|-------------------------------|-----|-------------|-----------------------------|-------------|---------------|------------------------|-----------------------|----------------------------|---------------------------------------|-------------------|-------------------|------------------------------------|
|                     | Raw material and supply  | Transport to the manufacturer                                      | Manufacturing        | Transport to the building site | Installation in the building  | Use | Maintenance | Repair                      | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport to waste processing         | Waste processing  | Disposal          | Reuse-Recovery-Recycling-potential |
| Module              | Al   | A2   | А3                   | A4                             | A5                            | В1  | B2          | В3                          | В4          | B5            | B6                     | В7                    | C1                         | C2                                    | C3                | C4                | D                                  |
| Modules<br>declared | Х  | Χ  | Х                    | Χ                              | Χ                             | ×   | Χ           | Χ                           | Χ           | Χ             | Χ                      | Χ                     | Х                          | Х                                     | Х                 | Χ                 | MND                                |
| Geography           | SE,<br>NL,<br>FR,<br>DK,<br>PL,<br>DE,<br>FI,<br>GB,<br>EU,<br>GLO | SE,<br>NI,<br>FR,<br>DK,<br>PI,<br>DE,<br>FI,<br>GB,<br>EU,<br>GLO | SE,<br>DK,<br>PL, FI | GB, EU,<br>GLO                 | EU,<br>GLO                    |     |             |                             |             |               |                        |                       | GB,<br>EU,<br>GLO          | GB,<br>EU,<br>GLO                     | GB,<br>EU,<br>GLO | GB,<br>EU,<br>GLO | -                                  |
| Specific data       |  | > 90 %   |                      |                                |                               |     |             |                             |             | -             |                        |                       |                            |                                       |                   |                   | -                                  |

## Environmental impact.

| arameters  |   |   |   |  |  | Environmental in   | ,   |  |   |   |  |  |  |  |  |
|--|---|---|---|--|--|--|---|--|---|---|--|--|--|--|--|
|  |   | Focus A   | Focus B   | Focus C  | Focus Ds   | Focus Dg   | Focus D/A   | Focus E  | Focus Ez  | Focus F   | Focus Lp   | Focus SQ   | Focus Flexi  |  |  |
|  | A1-A3   | 2,14E+00  | 3,44E+00  | 3,71E+00   | 4,01E+00   | 3,69E+00   | 3,79E+00  | 3,12E+00   | 5,16E+00  | 4,28E+00  | 4,02E+00   | 4,19E+00   | 2,34E+0  |  |  |
|  | A4-A5   | 1,95E-01  | 2,94E-01  | 2,87E-01   | 3,05E-01   | 2,90E-01   | 2,77E-01  | 2,45E-01   | 4,45E-01  | 3,26E-01  | 3,07E-01   |  | 2,63E-0  |  |  |
|  | B 1-B7  | 0,00E+00  | 0,00E+00  | 0,00E+00   | 0,00E+00   | 0,00E+00   | 0,00E+00  | 0,00E+00   | 0,00E+00  | 0,00E+00  | 0,00E+00   |  | 0,00E+   |  |  |
|  | C1-C4   | 2,61E-01  | 3,64E-01  | 2,59E-01   | 3, 10E-01  | 2,65E-01   | 2,54E-01  | 2,99E-01   | 3,10E-01  | 2,94E-01  | 3,27E-01   |  | 5,24E-I  |  |  |
| Global Warmina Potential (GWP) -   | D   | NDA   | NDA   | NDA  | NDA  | NDA  | NDA   | NDA  | NDA   | NDA   | NDA  | NDA  | NDA  |  |  |
| kg CO <sub>2</sub> equiv/FU  | Total A-C   | 2,59E+00  | 4,10E+00  | 4,26E+00   | 4,62E+00   | 4,24E+00   | 4,32E+00  | 3,66E+00   | 5,92E+00  | 4,90E+00  | 4,66E+00   | 4,88E+00   | 3,13E-   |  |  |
|  | A 1-A3  | 2,09E+07  | The global wa   | rming potential of a gas r<br>3,98E-07   | efers to the total contrib   | ution to global warming<br>4,05E-07  | resulting from the emis:  | sion of one unit of that g   | ps relative to one unit of 5,76E-07   | the reference gas, carbon   | dioxide, which is assign   |  | 2,39E-   |  |  |
|  | A4-A5   | 1,12E-08  | 2,06E-08  | 2,06E-08   | 2,31E-08   | 2,14E-08   | 2,00E-08  | 1,76E-08   | 2,95E-08  | 2,45E-08  | 2,29E-08   |  | 1,81E-   |  |  |
|  | B1-B7   | 0,00E+00  | 0,00E+00  | 0,00E+00   | 0,00E+00   | 2,14E-08<br>0,00E+00   | 0,00E+00  | 0,00E+00   | 0,00E+00  | 0,00E+00  | 0,00E+00   |  | 0,00E+   |  |  |
|  | C1-C4   | -2,44E-16   | -2,62E-16   | - 1,38E-16   | -2,12E-16  | - 1,47E-16   | - 1,75E- 16   | -2,40E-16  | -8,29E-17   | - 1,62E-16  | -2,33E-16  |  | -6,06E   |  |  |
|  | D D   | -2,44E-16   | -2,02E-10<br>NDA  | - 1,302-10<br>NDA  | -2,12E-16<br>NDA   | - 1,4/E- 16<br>NDA   | - 1,73E- 16<br>NDA  | -2,40E-16  | - 6,29E- 17<br>ND A   | - 1,02E- 10<br>NDA  | -2,33E-16<br>NDA   |  | -0,00E   |  |  |
| Ozone Depletion (ODP) kg CFC 11<br>equiv/FU  | Total A-C   | 2.20E-07  | 4.02E-07  | 4, 19E-07  | 4.73E-07   | 4.26E-07   | 4.06E-07  | 3,56E-07   | 6.06E-07  | 5,01E-07  | 4.66E-07   |  | 2,57E-   |  |  |
|  |   |   |   |  |  | reach the s  | tratosphere and then ca   | talytically destroy ozon   | e m olecules.   |   |  |  |  |  |  |
|  | A1-A3   | 1,07E-02  | 2,11E-02  | 1,94E-02   | 2,13E-02   | 2,06E-02   | 1,95E-02  | 1,66E-02   | 2,74E-02  | 2,26E-02  | 2,12E-02   |  | 1,20E-   |  |  |
|  | A4-A5   | 6,61E-04  | 1,24E-03  | 1,11E-03   | 1,20E-03   | 1,19E-03   | 1,11E-03  | 9,57E-04   | 1,54E-03  | 1,27E-03  | 1,20E-03   |  | 1,15E-   |  |  |
|  | B 1-B7  | 0,00E+00  | 0,00E+00  | 0,00E+00   | 0,00E+00   | 0,00E+00   | 0,00E+00  | 0,00E+00   | 0,00E+00  | 0,00E+00  | 0,00E+00   |  | 0,00E  |  |  |
|  | C1-C4   | 1,74E-04  | 3,05E-04  | 2,55E-04   | 2,69E-04   | 2,57E-04   | 2,18E-04  | 2,31E-04   | 3,73E-04  | 2,86E-04  | 2,75E-04   |  | 2,54E  |  |  |
| A cidification potential (AP) kg SO <sub>2</sub>   | D<br>Total A-C  | ND A<br>1,15E-02  | ND A<br>2,26E-02  | ND A<br>2,07E-02   | ND A<br>2,28E-02   | ND A<br>2,20E-02   | ND A<br>2,08E-02  | ND A<br>1,77E-02   | ND A<br>2,93E-02  | NDA<br>2,41E-02   | NDA<br>2,27E-02  |  | ND:  |  |  |
|  | A1-A3<br>A4-A5<br>B1-B7   | 3,44E-03<br>2,89E-04  | 5,85E-03<br>4,52E-04  | 5,69E-03<br>4,14E-04   | 6,04E-03<br>4,36E-04   | 5,86E-03<br>4,30E-04   | 5,78E-03<br>4,02E-04  | 4,85E-03<br>3,58E-04   | 7,75E-03<br>6,25E-04  | 6,40E-03<br>4,62E-04  | 6,03E-03<br>4,37E-04   | 6,63E-03<br>4,79E-04   | 3,79E<br>4,04E   |  |  |
|  | B1-B7<br>C1-C4  | 0,00E+00<br>3,32E-04  | 0,00E+00  | 0,00E+00   | 0,00E+00   | 0,00E+00   | 0,00E+00  | 0,00E+00   | 0,00E+00  | 0,00E+00  | 0,00E+00   |  | 0,00E+   |  |  |
|  |   |   |   |  |  |  |   |  | 0.115.01  |   |  |  |  |  |  |
|  |   |   | 4,51E-04  | 3,14E-04   | 3,82E-04   | 3,22E-04   | 3,13E-04  | 3,74E-04   | 3,64E-04  | 3,57E-04  | 4,04E-04   |  |  |  |  |
| Eutrophication potential (EP) kg<br>(PO <sub>d</sub> ) <sup>2</sup> , equiv/FU   | D<br>Total A-C  | 3,32E-04<br>ND A<br>4,06E-03  | 4,51E-04<br>ND A<br>6,76E-03  | 3,14E-04<br>NDA<br>6,42E-03  | 3,82E-04<br>ND A<br>6,86E-03   | 3,22E-04<br>ND A<br>6,62E-03   | 3,13E-04<br>ND A<br>6,50E-03  | 3,74E-04<br>ND A<br>5,59E-03   | 3,64E-04<br>ND A<br>8,73E-03  | 3,57E-04<br>NDA<br>7,22E-03   | 4,04E-04<br>NDA<br>6,87E-03  | 101 3,26E-01 000 0,00E+00 010 3,26E-01 010 3,26E-01 010 3,26E-01 010 4,88E+00 01 4,88E+00 02 4,88E+00 03 4,88E+00 04 4,88E+00 05 4,88E+00 07 4,77E-07 08 2,45E-08 00 0,00E+00 16 12,54E-08 16 12,54E-08 17 5,02E-07 18 12,36E-03 19 1,30E-03 19 1,30E-03 19 1,30E-03 19 1,30E-03 19 1,30E-03 19 1,30E-04 19 1,30E- |  |  |  |
|  | D<br>Total A-C  | ND A<br>4,06E-03  | NDA<br>6,76E-03   | NDA<br>6,42E-03  | NDA<br>6,86E-03<br>Excessive   | NDA<br>6,62E-03<br>enrichment of waters a  | NDA 6,50E-03 and continental surfaces v   | NDA 5,59E-03 with nutrients, and the a   | NDA<br>8,73E-03<br>ssocial ed adverse biologic  | NDA 7,22E-03 ad effects.  | NDA<br>6,87E-03  | NDA<br>7,56E-03  | 6,84E-<br>NDA<br>4,88E-  |  |  |
|  | D<br>Total A-C  | NDA   | NDA<br>6,76E-03<br>2,04E-03   | NDA<br>6,42E-03<br>2,19E-03  | NDA<br>6,86E-03<br>Excessive<br>2,38E-03   | NDA<br>6,62E-03  | ND A<br>6,50E-03  | ND A<br>5,59E-03   | ND A 8,73E-03 ssociated adverse biologic 3,09E-03   | NDA<br>7,22E-03   | NDA<br>6,87E-03<br>2,36E-03  | NDA<br>7,56E-03<br>2,57E-03  | ND.<br>4,88E   |  |  |
|  | D<br>Total A-C<br>A1-A3<br>A4-A5  | ND A<br>4,06E-03<br>1,22E-03<br>9,60E-05  | ND A<br>6,76E-03<br>2,04E-03<br>1,50E-04  | NDA<br>6,42E-03<br>2,19E-03<br>1,45E-04  | NDA<br>6,86E-03<br>Excessive<br>2,38E-03<br>1,54E-04   | NDA<br>6,62E-03<br>enrichment of waters a<br>2,16E-03<br>1,48E-04  | ND A 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04   | ND A 5,59E-03 with nutrients, and the ac 1,87E-03 1,26E-04   | NDA<br>8,73E-03<br>ssociated adverse biologic<br>3,09E-03<br>2,13E-04   | NDA 7,22E-03 ad effects. 2,88E-03 1,81E-04  | NDA<br>6,87E-03<br>2,36E-03<br>1,54E-04  | NDA<br>7,56E-03<br>2,57E-03<br>1,67E-04  | 1,51E  |  |  |
|  | D<br>Total A-C<br>A1-A3<br>A4-A5<br>B1-B7   | ND A 4,06E-03  1,22E-03 9,60E-05 0,00E+00   | ND A 6,76E-03  2,04E-03 1,50E-04 0,00E+00   | ND A 6, 42E- 03 2, 19E- 03 1, 45E- 04 0,00E+00   | ND A 6,86E-03  Excessive 2,38E-03 1,54E-04 0,00E+00  | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00   | ND A 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E+00  | ND A 5,59E-03 with nutrients, and the ac 1,87E-03 1,26E-04 0,00E+00  | NDA<br>8,73E-03<br>ssocial ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00  | NDA 7,22E-03  cd effects. 2,88E-03 1,81E-04 0,00E+00  | NDA<br>6,87E-03<br>2,36E-03<br>1,54E-04<br>0,00E+00  | NDA<br>7,56E-03<br>2,57E-03<br>1,67E-04<br>0,00E+00  | 1,51E  |  |  |
|  | D<br>Total A-C<br>A1-A3<br>A4-A5  | ND A 4,06E-03  1,22E-03 9,60E-05 0,00E+00 8,09E-05  | ND A<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E+00<br>1,11E-04  | NDA<br>6,42E-03<br>2,19E-03<br>1,45E-04<br>0,00E+00<br>7,81E-05  | NDA<br>6,86E-03<br>Excessive<br>2,38E-03<br>1,54E-04<br>0,00E+00<br>9,45E-05   | NDA<br>6,62E-03<br>enrichment of waters a<br>2,16E-03<br>1,48E-04<br>0,00E+00<br>8,02E-05  | ND A 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E+00 7,74E-05   | ND A 5,59E-03 with nutrients, and the ac 1,87E-03 1,25E-04 0,00E+00 9,18E-05   | NDA<br>8,73E-03<br>ssocial ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05  | NDA 7,22E-03  cd effects.  2,88E-03 1,81E-04 0,00E+00 8,89E-05  | NDA<br>6,87E-03<br>2,36E-03<br>1,54E-04<br>0,00E+00<br>9,97E-05  | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E+00 1,10E-04   | 1,51E<br>1,41E<br>0,00E<br>1,65E   |  |  |
| (PO <sub>d</sub> ) <sup>3</sup> . equiv <sub>F</sub> EU  | D<br>Total A-C<br>A1-A3<br>A4-A5<br>B1-B7<br>C1-C4  | ND A 4,06E-03  1,22E-03 9,60E-05 0,00E+00   | ND A 6,76E-03  2,04E-03 1,50E-04 0,00E+00   | ND A 6, 42E- 03 2, 19E- 03 1, 45E- 04 0,00E+00   | ND A 6,86E-03  Excessive 2,38E-03 1,54E-04 0,00E+00  | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00   | ND A 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E+00  | ND A 5,59E-03 with nutrients, and the ac 1,87E-03 1,26E-04 0,00E+00  | NDA<br>8,73E-03<br>ssocial ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00  | NDA 7,22E-03  cd effects. 2,88E-03 1,81E-04 0,00E+00  | NDA<br>6,87E-03<br>2,36E-03<br>1,54E-04<br>0,00E+00  | NDA 7,56E-03 2,57E-03 1,67E-04 NDA   | 1,51E<br>1,41E<br>0,00E<br>1,65E<br>ND   |  |  |
| (PO <sub>d</sub> ) <sup>2</sup> , equiv/FU  Phot-ochemical azone creation  | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA<br>4,00€:03<br>1,22€:03<br>9,00€:05<br>0,00€:00<br>8,00€:05<br>NDA<br>1,40€:03  | NDA<br>4,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-03  | NDA<br>6,42E-03<br>2,19E-03<br>1,45E-04<br>0,00E+00<br>7,81E-05<br>NDA<br>2,41E-03   | NDA 6,86E.03  Excessive  2,38E.03 1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03 dbout by the light energy  | NDA 6,62E-03 enrichment of waters of 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The recoting   | NDA 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E-00 7,74E-05 NDA 2,52E-03 on of nitrogen oxides wi  | NDA 5,59E-03 with nutrients, and the a 1,67E-03 1,26E-04 0,00E-00 9,18E-05 NDA 2,08E-03  | NDA<br>8,73E-03<br>social ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03  | NDA 7,22E:03  of effects.  2,88E:03 1,81E:04 0,00E+00 8,89E:05 NDA 3,15E:03   | NDA 6,87E-03  2,36E-03  1,54E-04 0,00E+00 9,97E-05 NDA 2,60E-03  | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E-00 1,10E-04 NDA 2,85E-03  | 1,51E-<br>1,41E-<br>0,00E+<br>1,65E-<br>ND/  |  |  |
| (PC) <sub>d</sub> <sup>3</sup> , equiv <sub>f</sub> EU   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA<br>4,09E:03<br>1,22E:03<br>9,60E:05<br>0,00E:400<br>8,09E:05<br>NDA<br>1,40E:03   | NDA<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E+00<br>1,11E-04<br>NDA<br>2,30E-03  | NDA<br>6.42E-03<br>2.19E-03<br>1.45E-04<br>0,00E+00<br>7.8IE-05<br>NDA<br>2.4IE-03<br>emicd reactions brought  | NDA 6,86E.03  Excessive 2,38E.03  1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03  doout by the light energy   | ND A 6,62E-03 enrichment of widers o 2,16E-03 1,48E-04 0,00E+00 8,02E-05 ND A 2,39E-03 y of the sun. The reaction  | NDA<br>6,50E-03<br>ad continental surfaces v<br>2,30E-03<br>1,47E-04<br>0,00E+00<br>7,74E-05<br>NDA<br>2,52E-03<br>on of nitrogen oxides will   | NOA 5,59E-03 with nutrients, and the a 1,87E-03 1,22E-04 0,00E+00 9,18E-05 NDA 2,08E-03 th by drocarbons in the p 4,97E-06   | NDA<br>6,73E-03<br>social ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>resence of sunlight to for  | NDA 7,22E:03  of effects.  2,88E:03  1,81E:04  0,00E+00  8,89E:05  NDA  3,15E:03  m ozone is on example o   | NDA 6,87E.03  2,36E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical reacti   | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E+00 1,10E-04 NDA 2,85E-03 on.  | 1,51E-<br>1,51E-<br>1,41E-<br>0,00E-<br>1,65E-<br>NDD  |  |  |
| [POJ <sup>3</sup> . equiv,FU  Photochemical azone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA<br>4,06E:03<br>1,22E:03<br>9,00E:05<br>0,00E:05<br>NDA<br>1,40E:03  | NDA<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-03  | NDA 6,42E-03  2,19E-03 1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03 emical reactions brought  | NDA 6,86E.03  Excessive  2,38E.03  1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03  doubt by the light energy 6,00E.06 3,23E.07  | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reaction 5,68E-06 3,10E-07  | NDA 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03 on of nitrogen oxides wi  | NDA 5,59E-03  with nutrients, and the a 1,67E-03 1,26E-04 0,00E-00 9,18E-05 NDA 2,08E-03  th hydrocarbons in the p 4,97E-06 2,77E-07   | NDA<br>8,73E-03<br>social ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>vesence of sunlight to for  | NDA 7,22E.03 2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03 m azone is an example of  | NDA 6,87E-03  2,36E-03 1,54E-04 0,00E+00 9,97E-05 NDA 2,60E-03  f a photochemical reacti   | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E-00 1,10E-04 NDA 2,85E-03 01. 7,37E-06 3,97E-07  | 1,51E 1,41E 0,00E 1,65E 1,82E  |  |  |
| [PO <sub>d</sub> ] <sup>3</sup> . equiv,FU  Photochemical acone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-fassil resources (ADP-elements) - kg   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA 4,06E:03  1,22E:03 9,06E:05 NDA 1,40E:03  2,88E:06 1,67E:07 0,00E+00  | NDA<br>4,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-03<br>CI  | NDA 6,42E-03  2,19E-03 1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03  5,79E-06 3,14E-07 0,00E+00   | NDA 6,86E.03  Excessive  2,38E.03 1,54E.04 0,00E.00 9,45E.05 NDA 2,63E.03 doout by the light energing 6,00E.00 3,23E.07 0,00E.00   | ND A 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reacti   | NDA<br>6,50E-03<br>ad continental surfaces v<br>2,30E-03<br>1,47E-04<br>0,00E-00<br>7,74E-05<br>NDA<br>2,52E-03<br>on of nitrogen oxides wit<br>6,18E-06<br>3,32E-07<br>0,00E+00  | NDA 5,59E-03  5,59E-03  with nutrients, and the average of the color o | NDA<br>8,73E-03<br>social ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>eresence of sunlight to for<br>8,03E-06<br>4,25E-07<br>0,00E+00   | NDA 7,22E.03 di effects. 2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03 m czone is on example o   | NDA 6,87E:03  2,36E:03 1,54E:04 9,00E:00 9,97E:05 NDA 2,62E:03  4 a phot ochemical reacti  | NDA 7,56E-03 2,57E-03 1,67E-04 NDA 2,85E-03 00. 7,37E-06 3,92E-07 0,00E-00   | 1,51E-<br>1,42E-<br>1,65E-<br>ND,1,62E-<br>3,51E-<br>4,08E-<br>0,00E-  |  |  |
| [POJ <sup>3</sup> . equiv,FU  Photochemical azone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA<br>4,06E:03<br>1,22E:03<br>9,00E:05<br>0,00E:05<br>NDA<br>1,40E:03  | NDA<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E+00<br>1,11E-04<br>NDA<br>2,30E-03  | NDA 6,42E-03  2,19E-03 1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03 emical reactions brought  | NDA 6,86E.03  Excessive 2.38E.03 1,54E.04 0,00E+00 9.45E.05 NDA 2,63E.03 door by the light energy 6,00E.06 3,23E.07 0,00E+00 7,92E.10  | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reaction 5,68E-06 3,10E-07  | NDA<br>6,50E-03<br>nd continental surfaces v<br>2,30E-03<br>1,47E-04<br>0,00E+00<br>7,74E-05<br>NDA<br>2,52E-03<br>on of nitrogen oxides with<br>6,18E-06<br>3,32E-07<br>0,00E+00<br>6,15E-10   | NDA 5,59E-03  with nutrients, and the a 1,67E-03 1,26E-04 0,00E-00 9,18E-05 NDA 2,08E-03  th hydrocarbons in the p 4,97E-06 2,77E-07   | NDA<br>8,73E-03<br>3,00E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>reserves of sunlight to for<br>8,00E-06<br>4,22E-07<br>0,00E+00<br>2,99E-09   | NDA 7,22E.03 2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03 m azone is an example of  | NDA 6,87E.03  2,36E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical reaction 5,99E.06 3,24E.07 0,00E+00 6,71E.10   | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E-00 1,10E-04 NDA 2,85E-03 01. 7,37E-06 3,97E-07  | ND, 4,88E  1,51E 1,41E 0,00E 1,65E ND, 1,82E 3,51E 4,08E   |  |  |
| [PO <sub>d</sub> ] <sup>3</sup> . equiv,FU  Photochemical acone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-fassil resources (ADP-elements) - kg   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D   | NDA 4,00E:03  1,22E:03  9,00E:05  9,00E:05  NDA 1,40E:03  2,88E:06 1,67E:07  9,00E+00  -4,49E:10  NDA   | NDA<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-03<br>6,05E-06<br>3,30E-07<br>0,00E-00<br>4,91E-10<br>NDA   | NDA 6,42E-03  2,19E-03  1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03  5,79E-06 3,14E-07 0,00E+00 1,32E-07 NDA   | NDA 6,86E.03  Excessive  2,38E.03 1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03 cbout by the light energy 4,00E-06 3,23E.07 0,00E+00 7,92E.10 NDA  | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reacti 5,68E-06 3,10E-07 0,00E+00 1,25E-09 NDA  | NDA 6,50E-03  d continental surfaces v 2,30E-03  1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03  on of nitrogen oxides wi 6,18E-06 3,32E-07 0,00E+00 6,15E-10 NDA  | NDA 5,59E-03  1,67E-03  1,26E-04  0,00E-100  9,18E-05  NDA 2,08E-03  4,97E-06  2,7ZE-07  0,00E-100  1,50E-10  NDA  | NDA<br>8,73E-03<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>4,25E-07<br>0,00E+00<br>2,00E+00<br>4,25E-07<br>0,00E+00<br>2,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00E+00<br>1,00  | NDA 7,22E.03 2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03 0,00E+00 4,82E.06 3,65E.07 9,00E+00 1,41E.09 NDA  | NDA 6,87E-03  2,36E-03  1,54E-04 0,00E+00 9,97E-05 NDA 2,66E-03  4 a phot achemical react 5,99E-06 3,24E-07 0,00E+00 6,71E-10 NDA  | NDA 7,50E-03 2,57E-03 1,67E-04 NDA 2,85E-03 7,37E-06 3,92E-07 0,00E-00 7,44E-10 NDA  | 1,51E- 0,00E- 1,65E- ND, 1,82E- 3,51E- 4,08E- 0,00E- 1,00E- 1,00E |  |  |
| [PO <sub>d</sub> ] <sup>3</sup> . equiv,FU  Photochemical acone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-fassil resources (ADP-elements) - kg   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  | NDA<br>4,06E:03<br>1,22E:03<br>9,66E:05<br>0,00E+00<br>8,00E:05<br>NDA<br>1,40E:03<br>2,88E:06<br>1,67E:07<br>0,00E+00<br>-4,49E:10<br>NDA<br>3,05E:05  | NDA<br>6,76E-03<br>1,50E-04<br>0,00E+00<br>1,11E-04<br>NDA<br>2,30E-03<br>C1<br>6,05E-06<br>3,30E-07<br>0,00E+00<br>6,91E-10<br>NDA   | NDA 6,42E-03  2,19E-03  1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03  emical reactions brought 5,79E-06 3,14E-07 0,00E+00 1,32E-09 NDA 6,10E-06                           | NDA 6,86E.03  Excessive  2,38E.03  1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03  dood by the light energy 6,00E.06 3,23E.07 0,00E+00 7,92E.10 NDA 6,32E.05  | NDA 6,62E-03 enrichment of waters of 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reaction of 1,25E-09 NDA 5,96E-00 1,25E-09 NDA 5,99E-05 5,99E-06   | NDA 6,50E-03 ad continental surfaces v 2,30E-03 1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03 on of nitrogen oxides wi 6,18E-06 3,32E-07 0,00E+00 6,15E-10 NDA 6,51E-06   | NDA 5,59E-03 with nutrients, and the a 1,87E-03 1,26E-04 0,00E+00 9,18E-05 NDA 2,08E-03 th by discorbons in the p 4,97E-06 2,72E-07 0,00E+00 1,50E-10 NDA 5,24E-05   | NDA<br>6,73E-03<br>social ed adverse biologic<br>3,09E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>resence of sunlight to for<br>8,03E-06<br>4,25E-07<br>0,00E+00<br>2,99E-09<br>NDA   | NDA 7,22E:03  2,88E:03 1,81E:04 0,00E+00 8,89E:05 NDA 3,15E:03  m ozone is on example of 6,82E:06 3,65E:07 0,00E+00 1,41E:09 NDA 7,18E:06                   | NDA 6,87E.03  2,36E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical reaction 5,99E.06 3,24E.07 0,00E+00 6,71E.10   | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E+00 1,10E-04 NDA 2,85E-03 00. 7,37E-06 3,92E-07 0,00E+00 7,64E-10  | ND, 4,88E  |  |  |
| [PO <sub>d</sub> ] <sup>3</sup> . equiv,FU  Photochemical acone creation [POPC] kg Ethene equiv,FU  Abiatic depletion potential for non-fassil resources (ADP-elements) - kg   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C A1-A3                                     | NDA 4,00€:03  1,22€:03  9,00€:05 0,00€:00 8,00€:05 NDA 1,40€:03  2,88€:06 1,67€:07 0,00€:40 1,67€:10 NDA 3,05€:06   | NDA<br>6,76E-03<br>2,04E-03<br>1,50E-04<br>0,00E+00<br>1,11E-04<br>NDA<br>2,30E-03<br>3,30E-07<br>0,00E+00<br>6,91E-10<br>NDA<br>4,38E-06<br>5,32E-01   | NDA 6,42E.03  2,19E.03 1,45E.04 0,00E+00 7,81E.05 NDA 2,41E.03  5,79E.06 3,14E.07 0,00E+00 1,32E.07 NDA 4,10E.06 5,56E+01  | NDA 6,86E.03  Excessive  2,38E.03  1,54E.04 0,00E.00 9,45E.05 NDA 2,63E.03  chout by the light energy 4,00E.06 3,23E.07 0,00E.00 7,72E.10 NDA 6,32E.06   | NDA 6,62E-03 enrichment of waters at 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 1,0E-07 0,00E+00 1,2SE-07 1,0EE-07 | NDA<br>6,50E-03<br>and continental surfaces v<br>2,30E-03<br>1,47E-04<br>0,00E+00<br>7,74E-05<br>NDA<br>2,52E-03<br>on of nitrogen oxides with<br>6,18E-06<br>3,32E-07<br>0,00E+00<br>6,15E-10<br>NDA<br>6,51E-06   | NDA 5,59E-03  1,87E-03  1,87E-03  1,26E-04 0,00E+00  9,18E-05 NDA 2,08E-03  th hydrocarbons in the p  4,97E-05 2,72E-07 0,00E+00  1,50E-10  NDA 5,24E-06 4,73E-01  | NDA<br>8,73E-03<br>3,00E-03<br>2,13E-04<br>0,00E+00<br>9,22E-05<br>NDA<br>3,40E-03<br>4,25E-07<br>0,00E+00<br>2,90E-06<br>4,25E-07<br>0,00E+00<br>2,90E-09<br>NDA<br>8,44E-06<br>7,97E+01   | NDA 7,22E:03  2,88E:03 1,81E:04 0,00E+00 8,89E:05 NDA 3,15E:09  m ozone is on example of 4,82E:06 3,65E:07 0,00E+00 1,41E:09 NDA 7,18E:06                   | NDA 6,87E.03  2,34E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical reaction 5,99E.06 3,24E.07 0,00E+00 6,71E.10 NDA 6,32E.06 6,00E+01                         | NDA 7,56E-03  2,57E-03  1,67E-04 0,00E-00 1,10E-04 NDA 2,85E-03  7,37E-06 3,92E-07 0,00E-00 7,64E-10 NDA 7,76E-06  | 1,51E 1,41E 1,41E 0,00E 1,65E ND,1,65E 1,40E 4,08E 4,08E 1,08E 1,0 |  |  |
| (PO <sub>B</sub> <sup>3</sup> , equiv,FU  Photochemical azone creation (POPC) kg Ethene equiv,FU  Abiatic depletion potential for non-   | D Total A-C  A1-A3  A4-A5  B1-B7  C1-C4  D Total A-C  A1-A3  A4-A5  B1-B7  C1-C4  D  Total A-C  A1-A3  A4-A5                    | NDA 4,00€:03  1,22€:03  9,00€:05  9,00€:05  NDA 1,40€:03  2,88€:06  1,67€:07  0,00€+00  NDA 3,00€:00  2,90€:01  1,74€:10  | NDA<br>6,76E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-05<br>3,30E-07<br>0,00E+00<br>6,91E-10<br>NDA<br>6,38E-06<br>5,32E+01<br>3,16E-00   | NDA 6,42E-03  2,19E-03  1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03  3,14E-07 0,00E+00 1,32E-09 NDA 6,10E-06 3,15E+00 3,15E+00   | NDA 6,86E.03  Excessive  2,38E.03 1,54E.04 0,00E.05 NDA 2,63E.03  dood by the light energy 6,00E.06 3,23E.07 0,00E.00 7,92E.10 NDA 6,32E.06 6,12E.401 3,44E.400  | NDA 6,62E-03 enrichment of waters of 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reacti 5,68E-06 3,10E-07 0,00E+00 1,2E-09 NDA 5,99E-06 3,19E-07  | NDA 6,50E-03 14,77E-04 1,00E-05 1,77E-05 NDA 2,50E-03 1,47E-04 2,50E-03 01 of nitrogen oxides with the control of the control | NDA 5,59E-03 with nutrients, and the a 1,87E-03 1,26E-04 0,00E+00 9,18E-05 NDA 2,08E-03 h by drocarbons in the p 4,97E-06 2,77E-07 0,00E+00 1,50E-10 NDA 5,24E-06 4,73E+01 2,76E+00  | NDA<br>8,73E.03<br>3,09E.03<br>2,13E.04<br>0,00E+00<br>9,22E.05<br>NDA<br>3,40E.03<br>4,25E.07<br>0,00E+00<br>2,99E.09<br>NDA<br>4,25E.07<br>0,00E+00<br>2,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>4,25E.07<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E.09<br>NDA<br>1,99E | NDA 7,22E.03  2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03  4,82E.06 3,65E.07 0,00E+00 1,41E.09 NDA 7,18E.06 4,79E+01 3,79E+01                          | NDA 6,87E-03  2,36E-03  1,54E-04 0,00E+00 9,97E-05 NDA 2,62E-03  5,99E-06 3,24E-07 0,00E+00 6,71E-10 NDA 6,32E-06 4,00E+01 3,39E+00  | NDA 7,50E-03 2,57E-03 1,67E-04 NDA 2,85E-03 7,37E-06 3,92E-07 0,00E-00 7,64E-10 NDA 7,7E-06 6,64E-01 3,7E-00   | 1,51E 1,41E 0,00E 1,65E ND 1,82E 3,51E 4,08E 0,00E 1,82E 1,05E 1,82E 3,51E 4,08E 2,90E ND 3,91E 3,44E 2,96E  |  |  |
| (POg <sup>1</sup> , equiv/FU  Photochemical azone credion (POPC) kg Ethene equiv/FU  Abiatic depletion potential for non-fassil renovaces (ADP-elements) - kg  Sb equiv/FU   | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  B1-B7 C1-C4 D Total A-C A1-A3 A4-A5 B1-B7 C1-C4 B1-B7 D Total A-C A1-A3 A4-A5 | NDA 4,00E:03  1,22E:03  9,60E:05 0,00E+00 8,00E:05 NDA 1,40E:03  2,88E:06 1,67E:07 0,00E+00 -4,49E:10 NDA 3,05E:06 2,90E+01 1,74E+00 0,00E+00 -0,00E+00   | NDA 6,76E-03  2,04E-03  1,50E-04 0,00E+00 1,11E-04 NDA 2,30E-03  6,05E-06 3,30E-07 0,00E+00 6,91E-10 NDA 6,38E-06 5,32E-101 3,14E+00 0,00E+00   | NDA 6,42E.03  2.19E.03  1,45E.04 0,00E+00 7,81E.05 NDA 2,41E.03  emicd reactions brought 5,79E.06 3,14E.07 0,00E+00 1,32E.09 NDA 6,10E.06 5,56E+01 3,15E+00 0,00E+00 | NDA 6,86E.03  Excessive  2.38E.03  1,54E.04 0,00E+00 9.45E.05 NDA 2,63E.03  dood by the light energy 6,00E.06 3,23E.07 0,00E+00 7,92E.10 NDA 6,32E.07 6,12E+01 3,44E+00 0,00E+00   | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reactive 5,68E-06 3,10E-07 0,00E+00 1,25E-09 NDA 5,58E-01 3,19E-00 0,00E+00   | NDA 6,50E-03  d continent of surfaces v 2,30E-03  1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03  on of nitrogen oxides wit 6,18E-06 3,32E-07 0,00E+00 6,13E-10 NDA 6,51E-06 5,59E+01 3,12E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00   | NDA 5,59E-03  with nutrients, and the a 1,87E-03 1,26E-04 0,00E-00 9,18E-05 NDA 2,08E-03 1h by drocarbons in the p 4,57E-06 2,7ZE-07 0,00E-00 1,50E-10 NDA 5,24E-06 4,73E-101 0,70E-10 0,00E-10  | NDA 8,73E-03 3.00E-03  | NDA 7,22E:03  2,88E:03 1,81E:04 0,00E+00 8,90E:05 NDA 3,15E:03  m czone is on example of 6,82E:06 3,65E:07 0,00E+00 1,41E:09 NDA 7,18E:06 4,79E+01 3,79E+00 | NDA 6,87E.03  2,36E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical react 5,99E.06 3,24E.07 0,00E+00 6,71E.10 NDA 6,32E.06 6,00E+01 3,39E+00 0,00E+00 0,00E+01 | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E+00 1,10E-04 NDA 2,85E-03 00. 7,37E-06 3,92E-07 0,00E+00 7,64E-10 NDA 7,75E-06 4,64E-01 3,73E+00   | 1,51E. 1,41E. 0,00E. 1,65E. ND. 1,82E- 4,08E. ND. 3,51E. 4,08E. ND. 3,51E. 4,08E. ND. 3,4E. 2,92E.   |  |  |
| (PO <sub>B</sub> ) <sup>2</sup> , equiv,FU  Photochemical azone creation (POPC) kg Ethene equiv,FU  Abiatic deplation potential for non-fassil resources (ADP-dements) - kg  Sb equiv,FU  Abiatic deplation potential for fassil | D Totd A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Totd A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Totd A-C B1-B7 C1-C4 D Totd A-C C1-C4 D Totd A-C      | NDA 4,00E:03  1,22E:03  9,00E:05  1,00E:05  NDA 1,40E:03  2,88E:06 1,67E:07 1,00E:400 NDA 3,00E:06 2,00E:400 1,7E:400 NDA 3,00E:06 1,7E:400 NDA 3,00E:06 1,7E:400 0,00E:400 1,7E:400 0,00E:400 1,7E:400 0,00E:400 1,7E:400 | NDA<br>6,76E-03<br>1,50E-04<br>0,00E-00<br>1,11E-04<br>NDA<br>2,30E-03<br>0,00E+00<br>1,30E-07<br>0,00E+00<br>6,91E-10<br>NDA<br>6,38E-06<br>5,32E-01<br>3,16E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00<br>8,38E-00 | NDA 6,42E-03  2,19E-03 1,45E-04 0,00E+00 7,81E-05 NDA 2,41E-03  5,79E-06 3,14E-07 0,00E+00 1,32E-07 NDA 6,10E-06 3,15E-00 NDA 6,10E-06 7,47E-01                      | NDA 6,86E.03  Excessive  2,38E.03  1,54E.04 0,00E+00 9,45E.05 NDA 2,63E.03  chout by the light energy 4,00E.06 3,23E.07 0,00E+00 NDA 6,32E.06 NDA 6,32E.06 NDA 7,92E.10 NDA 6,32E.06 1,12E+01 3,44E+00 0,00E+00 7,88E.01 | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reactive 5,68E-06 3,10E-07 0,00E+00 1,25E-09 NDA 5,99E-00 1,25E-09 NDA 5,99E-00 1,25E-07 NDA 5,99E-00 7,51E-01  | NDA 6,50E-03  1d continental surfaces v 2,30E-03  1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03  on of nitrogen oxides wi 6,18E-06 3,32E-07 0,00E+00 6,18E-06 NDA 6,51E-06 0,00E+00 0,00E+00 0,00E+00   | NDA 5,59E-03  1,67E-03 1,26E-04 0,00E+00 9,18E-05 NDA 2,08E-03  th hydrocarbons in the p 4,97E-06 2,72E-07 0,00E+00 1,50E-10 NDA 5,24E-06 4,73E-01 0,00E+00 0,00E+00 0,00E+00  | NDA 8,73E-03 social ad adverse biologic 3,09E-03 2,13E-04 0,00E+00 9,22E-05 NDA 3,40E-03 versence of sunlight to for 4,23E-07 0,00E+00 2,99E-09 NDA 8,46E-00 7,79E+01 4,50E+00 0,00E+00 1,09E+00 1,09E+00 1,09E+00 1,09E+00   | NDA 7,22E.03  2,88E.03 1,81E.04 0,00E+00 8,89E.05 NDA 3,15E.03  4,82E.06 3,65E.07 0,00E+00 1,41E.09 NDA 7,18E.06 6,77E+01 3,77E+00 0,00E+00 0,00E+00        | NDA 6,87E-03  2,36E-03 1,54E-04 0,00E+00 9,97E-05 NDA 2,62E-03  F a photochemical reacti 5,99E-06 3,24E-07 0,00E+00 6,71E-10 NDA 6,32E-06 0,00E+01 3,39E+00 0,00E+00 8,08E-01  | NDA 7,56E-03  2,57E-03  1,67E-04 0,00E+00 1,10E-04 NDA 2,89E-03  7,37E-06 3,97E-07 0,00E+00 NDA 7,76E-06 6,64E-10 3,78E-00 0,00E+00 8,98E-01   | ND/<br>4,88E-<br>1,51E-<br>1,41E-<br>0,00E-<br>1,65E-<br>ND/<br>1,82E-<br>3,51E-<br>4,08E-<br>4,08E-<br>2,92E  |  |  |
| (PO <sub>B</sub> ) <sup>3</sup> , equiv/FU  Photochemical arone credition (POPC) kg Ethene equiv/FU  Abiotic depletion potential for non-fassil resources (ADP-dements) - kg  Sb equiv/FU  | D Total A-C  A1-A3 A4-A5 B1-B7 C1-C4 D Total A-C  B1-B7 C1-C4 D Total A-C A1-A3 A4-A5 B1-B7 C1-C4 B1-B7 B1-B7                   | NDA 4,00E:03  1,22E:03  9,60E:05 0,00E+00 8,00E:05 NDA 1,40E:03  2,88E:06 1,67E:07 0,00E+00 -4,49E:10 NDA 3,05E:06 2,90E+01 1,74E+00 0,00E+00 -0,00E+00   | NDA 6,76E-03  2,04E-03  1,50E-04 0,00E+00 1,11E-04 NDA 2,30E-03  6,05E-06 3,30E-07 0,00E+00 6,91E-10 NDA 6,38E-06 5,32E-101 3,14E+00 0,00E+00   | NDA 6,42E.03  2.19E.03  1,45E.04 0,00E+00 7,81E.05 NDA 2,41E.03  emicd reactions brought 5,79E.06 3,14E.07 0,00E+00 1,32E.09 NDA 6,10E.06 5,56E+01 3,15E+00 0,00E+00 | NDA 6,86E.03  Excessive  2.38E.03  1,54E.04 0,00E+00 9.45E.05 NDA 2,63E.03  dood by the light energy 6,00E.06 3,23E.07 0,00E+00 7,92E.10 NDA 6,32E.07 6,12E+01 3,44E+00 0,00E+00   | NDA 6,62E-03 enrichment of waters a 2,16E-03 1,48E-04 0,00E+00 8,02E-05 NDA 2,39E-03 y of the sun. The reactive 5,68E-06 3,10E-07 0,00E+00 1,25E-09 NDA 5,58E-01 3,19E-00 0,00E+00   | NDA 6,50E-03  d continent of surfaces v 2,30E-03  1,47E-04 0,00E+00 7,74E-05 NDA 2,52E-03  on of nitrogen oxides wit 6,18E-06 3,32E-07 0,00E+00 6,13E-10 NDA 6,51E-06 5,59E+01 3,12E+00 0,00E+00 0,00E+00 0,00E+00 0,00E+00   | NDA 5,59E-03  with nutrients, and the a 1,87E-03 1,26E-04 0,00E-00 9,18E-05 NDA 2,08E-03 1h by drocarbons in the p 4,57E-06 2,7ZE-07 0,00E-00 1,50E-10 NDA 5,24E-06 4,73E-101 0,70E-10 0,00E-10  | NDA 8,73E-03 3.00E-03  | NDA 7,22E:03  2,88E:03 1,81E:04 0,00E+00 8,90E:05 NDA 3,15E:03  m czone is on example of 6,82E:06 3,65E:07 0,00E+00 1,41E:09 NDA 7,18E:06 4,79E+01 3,79E+00 | NDA 6,87E.03  2,36E.03  1,54E.04 0,00E+00 9,97E.05 NDA 2,62E.03  f a phot ochemical react 5,99E.06 3,24E.07 0,00E+00 6,71E.10 NDA 6,32E.06 6,00E+01 3,39E+00 0,00E+00 0,00E+01 | NDA 7,56E-03 2,57E-03 1,67E-04 0,00E+00 1,10E-04 NDA 2,85E-03 00. 7,37E-06 3,92E-07 0,00E+00 7,64E-10 NDA 7,75E-06 4,64E-01 3,73E+00   | 1,51E 1,41E 1,41E 1,65E  |  |  |

### Resource use

|       |  |           |           |           |           |           | Environmental in | npacts    |           |          |           |           |           |              |
|-------|--|-----------|-----------|-----------|-----------|-----------|------------------|-----------|-----------|----------|-----------|-----------|-----------|--------------|
| Param | neters   |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flexif |
|       |  | A1-A3     | 2,02E+01  | 3,08E+01  | 3,63E+01  | 4,28E+01  | 3,71E+01         | 3,34E+01  | 3,07E+01  | 5,32E+01 | 4,28E+01  | 4,19E+01  | 4,08E+01  | 2,08E+01     |
|       | Use of renewable primary energy  | A4-A5     | 1,56E+00  | 2,47E+00  | 2,33E+00  | 2,66E+00  | 2,55E+00         | 2,18E+00  | 2,04E+00  | 3,15E+00 | 2,66E+00  | 2,62E+00  | 2,55E+00  | 2,34E+00     |
| ⊁".   | excluding renewable primary energy<br>resources used as raw materials - M.J. | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00     |
|       | /FU  | C1-C4     | -4,68E-02 | -3,97E-02 | -1,23E-02 | -2,98E-02 | -1,44E-02        | -2,51E-02 | -4,07E-02 | 1,27E-02 | -1,57E-02 | -3,46E-02 | -3,79E-02 | -1,33E-01    |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 2,17E+01  | 3,32E+01  | 3,87E+01  | 4,55E+01  | 3,96E+01         | 3,56E+01  | 3,27E+01  | 5,64E+01 | 4,55E+01  | 4,45E+01  | 4,33E+01  | 2,31E+0      |
|       |  | A1-A3     | 2,07E-01  | 4,41E-01  | 4,22E-01  | 5,06E-01  | 4,32E-01         | 4,04E-01  | 3,74E-01  | 6,74E-01 | 6,36E-01  | 4,90E-01  | 5,92E-01  | 2,37E-01     |
|       |  | A4-A5     | 1,03E-02  | 2,21E-02  | 2,11E-02  | 2,52E-02  | 2,16E-02         | 2,02E-02  | 1,87E-02  | 3,37E-02 | 3,18E-02  | 2,45E-02  | 2,96E-02  | 1.19E-02     |
|       | Use of renewable primary energy  | B1-B7     | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0,00E+00  | 0.00E+00         | 0.00E+00  | 0.00E+00  | 0,00E+00 | 0.00E+00  | 0.00E+00  | 0.00E+00  | 0,00E+0      |
|       | used as raw materials - MJ /FU   | C1-C4     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0.00E+0      |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 2,17E-01  | 4,63E-01  | 4,43E-01  | 5,31E-01  | 4,54E-01         | 4,24E-01  | 3,93E-01  | 7,08E-01 | 6,68E-01  | 5,15E-01  | 6,22E-01  | 2,49E-0      |
|       |  | A1-A3     | 2,04E+01  | 3,12E+01  | 3,68E+01  | 4,33E+01  | 3,75E+01         | 3,38E+01  | 3,10E+01  | 5,39E+01 | 4,35E+01  | 4,24E+01  | 4,13E+01  | 2,11E+0      |
|       | T otal use of renewable primary  | A4-A5     | 1,57E+00  | 2,49E+00  | 2,36E+00  | 2,69E+00  | 2,58E+00         | 2,20E+00  | 2,06E+00  | 3,18E+00 | 2,69E+00  | 2,64E+00  | 2,58E+00  | 2,36E+0      |
|       | energy resources (primary energy   | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+0      |
|       | and primary energy resources used  | C1-C4     | -4.68E-02 | -3,97E-02 | -1,23E-02 | -2.98E-02 | -1.44E-02        | -2.51E-02 | -4.07E-02 | 1.27E-02 | -1.57E-02 | -3.46E-02 | -3.79E-02 | -1.33E-0     |
|       | as raw materials) - MJ /FU   | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  |           |           |           |           |           |                  |           |           |          |           |           |           |              |
|       |  | Total A-C | 2,19E+01  | 3,37E+01  | 3,91E+01  | 4,60E+01  | 4,00E+01         | 3,60E+01  | 3,31E+01  | 5,71E+01 | 4,61E+01  | 4,50E+01  | 4,39E+01  | 2,33E+0      |
|       |  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flexi  |
|       |  | A1-A3     | 2,79E+01  | 5,34E+01  | 5,59E+01  | 6,16E+01  | 5,58E+01         | 5,57E+01  | 4,72E+01  | 8,12E+01 | 6,83E+01  | 6,01E+01  | 7,04E+01  | 3,37E+0      |
|       | Use of non-renewable primary   | A4-A5     | 1,69E+00  | 3,16E+00  | 3,16E+00  | 3,45E+00  | 3,20E+00         | 3,11E+00  | 2,69E+00  | 4,54E+00 | 3,80E+00  | 3,38E+00  | 3,92E+00  | 3,03E+       |
|       | energy excluding non-renewable   | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       | primary energy resources used as   | C1-C4     | 4,39E-01  | 8,03E-01  | 6,92E-01  | 7,14E-01  | 6,94E-01         | 5,80E-01  | 5,99E-01  | 1,04E+00 | 7,73E-01  | 7,29E-01  | 8,09E-01  | 5,86E-0      |
|       | raw materials - MJ /FU   | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 3,00E+01  | 5,74E+01  | 5,98E+01  | 6,58E+01  | 5,97E+01         | 5,93E+01  | 5,04E+01  | 8,68E+01 | 7,28E+01  | 6,42E+01  | 7,52E+01  | 3,73E+       |
|       |  | A1-A3     | 1,05E+00  | 2,52E+00  | 2,10E+00  | 2,51E+00  | 2,26E+00         | 2,01E+00  | 1,86E+00  | 3,35E+00 | 3,16E+00  | 2,44E+00  | 2,94E+00  | 1,18E+       |
|       | Use of non-renewable primary   | A4-A5     | 5,33E-02  | 1,38E-01  | 1,05E-01  | 1,25E-01  | 1,18E-01         | 1,00E-01  | 9,30E-02  | 1,68E-01 | 1,58E-01  | 1,22E-01  | 1,47E-01  | 5,90E-0      |
| 1     | energy used as raw materials - MJ /  | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
| •     | FU   | C1-C4     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 1,10E+00  | 2,66E+00  | 2,21E+00  | 2,64E+00  | 2,38E+00         | 2,11E+00  | 1,95E+00  | 3,52E+00 | 3,32E+00  | 2,56E+00  | 3,09E+00  | 1,24E+0      |
|       |  | A1-A3     | 2.89E+01  | 5.59E+01  | 5.80E+01  | 6.41E+01  | 5.81E+01         | 5.77E+01  | 4.90E+01  | 8.46E+01 | 7.14E+01  | 6.25E+01  | 7.34E+01  | 3.49E+0      |
|       | Total use of non-renewable primary   | A4-A5     | 1.74E+00  | 3.30E+00  | 3.26E+00  | 3.57E+00  | 3.32E+00         | 3.21E+00  | 2.78E+00  | 4.71E+00 | 3.96E+00  | 3.50E+00  | 4.07E+00  | 3.09E+0      |
|       | energy resources (primary energy   | B1-B7     | 0.00E+00  | 0,00E+00  | 0,00E+00  | 0.00F+00  | 0.00E+00         | 0.00F+00  | 0.00E+00  | 0.00E+00 | 0,00E+00  | 0.00E+00  | 0.00E+00  | 0.00E+0      |
|       | and primary energy resources used  | C1-C4     | 4,39E-01  | 8,03E-01  | 6,92E-01  | 7,14E-01  | 6,94E-01         | 5,80E-01  | 5,99E-01  | 1,04E+00 | 7,73E-01  | 7,29E-01  | 8,09E-01  | 5,86E-0      |
|       | as raw materials) - MJ /FU   | D         | NDA       | ND A      | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | ND A         |
|       |  | Total A-C | 3,11E+01  | 6,00E+01  | 6,20E+01  | 6,84E+01  | 6,21E+01         | 6,15E+01  | 5,24E+01  | 9,03E+01 | 7,62E+01  | 6,68E+01  | 7,82E+01  | 3.86E+0      |
|       |  | Total     |           |           |           |           |                  |           |           |          |           |           |           |              |
|       |  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flex   |
|       |  | A1-A3     | 8,54E-01  | 1,31E+00  | 1,62E+00  | 1,94E+00  | 1,65E+00         | 1,44E+00  | 1,34E+00  | 2,41E+00 | 1,88E+00  | 1,88E+00  | 1,75E+00  | 8,73E-0      |
| 2     | Use of secondary material  | A4-A5     | 4,49E-02  | 8,94E-02  | 8,10E-02  | 9,70E-02  | 9,41E-02         | 7,22E-02  | 6,69E-02  | 1,21E-01 | 9,41E-02  | 9,39E-02  | 8,77E-02  | 4,36E-0      |
| 9     | Kg/FU  | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | C1-C4     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 8,99E-01  | 1,40E+00  | 1,70E+00  | 2,04E+00  | 1,74E+00         | 1,51E+00  | 1,41E+00  | 2,53E+00 | 1,97E+00  | 1,98E+00  | 1,84E+00  | 9,17E-0      |
|       |  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flex   |
|       |  | A1-A3     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       | Use of renewable secondary fuels   | A4-A5     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       | MJ /FU   | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | C1-C4     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flex   |
|       |  | A1-A3     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       | Use of non-renewable secondary   | A4-A5     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
| 9     | fuels - MJ /FU   | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | C1-C4     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | D D       |           |           |           |           |                  |           |           |          |           |           | -         |              |
|       |  |           | ND A      | ND A      | ND A      | ND A      | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez | Focus F   | Focus Lp  | Focus SQ  | Focus Flex   |
|       |  | A1-A3     | 3,71E-02  | 6,83E-02  | 7,02E-02  | 7,89E-02  | 7,19E-02         | 6,85E-02  | 5,92E-02  | 1,02E-01 | 8,37E-02  | 7,74E-02  | 8,16E-02  | 3,98E-       |
| Ó     | Use of net fresh water   | A4-A5     | 2,01E-03  | 3,67E-03  | 3,66E-03  | 4,09E-03  | 3,79E-03         | 3,58E-03  | 3,11E-03  | 5,23E-03 | 4,32E-03  | 4,02E-03  | 4,22E-03  | 2,74E-       |
| 7     | m³/FU  | B1-B7     | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00 | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+       |
|       |  | C1-C4     | -1,21E-06 | 3,74E-05  | 5,12E-05  | 3,79E-05  | 4,95E-05         | 3,01E-05  | 1,83E-05  | 1,04E-04 | 5,54E-05  | 3,51E-05  | 3,95E-05  | -6,23E-0     |
|       |  | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA      | NDA       | NDA       | NDA       | NDA          |
|       |  | Total A-C | 3,91E-02  | 7,20E-02  | 7,40E-02  | 8,31E-02  | 7,57E-02         | 7,21E-02  | 6,23E-02  | 1,07E-01 | 8,80E-02  | 8,15E-02  | 8,58E-02  | 4,24E-0      |

## Waste categories

|                             |           |           |           |           |           | Environmental in | pacts     |           |           |           |           |           |                 |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------------|
| Parameters                  |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez  | Focus F   | Focus Lp  | Focus SQ  | Focus Flexiform |
|                             | A1-A3     | 2,01E-08  | 3,10E-08  | 3,73E-08  | 4,43E-08  | 3,80E-08         | 3,40E-08  | 3,12E-08  | 5,51E-08  | 4,42E-08  | 4,33E-08  | 4,14E-08  | 2,07E-08        |
| _                           | A4-A5     | 1,63E-09  | 2,67E-09  | 2,43E-09  | 2,79E-09  | 2,72E-09         | 2,27E-09  | 2,13E-09  | 3,32E-09  | 2,78E-09  | 2,75E-09  | 2,64E-09  | 2,42E-09        |
| Hazardous waste disposed    | B 1-B7    | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00        |
| C kg/10                     | C1-C4     | 2,06E-11  | 4,47E-11  | 4,19E-11  | 4,06E-11  | 4,17E-11         | 3,29E-11  | 3,16E-11  | 6,74E-11  | 4,64E-11  | 4,07E-11  | 4,54E-11  | 1,68E-11        |
|                             | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA       | NDA       | NDA       | NDA       | NDA             |
|                             | Total A-C | 2,18E-08  | 3,37E-08  | 3,98E-08  | 4,71E-08  | 4,08E-08         | 3,63E-08  | 3,34E-08  | 5,85E-08  | 4,70E-08  | 4,61E-08  | 4,41E-08  | 2,31E-08        |
|                             |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez  | Focus F   | Focus Lp  | Focus SQ  | Focus Flexiform |
|                             | A1-A3     | 4,87E-01  | 2,98E-01  | 4,32E-01  | 3,37E-01  | 3,75E-01         | 5,49E-01  | 3,05E-01  | 5,15E-01  | 4,50E-01  | 3,64E-01  | 3,91E-01  | 3,27E-01        |
| Non-hazardous waste         | A4-A5     | 1,20E-01  | 1,44E-01  | 1,36E-01  | 1,53E-01  | 1,47E-01         | 1,32E-01  | 1,17E-01  | 2,47E-01  | 1,57E-01  | 1,54E-01  | 1,52E-01  | 1,12E-01        |
| disposed - kg/FU            | B 1-B7    | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00        |
| 0                           | C1-C4     | 1,50E+00  | 2,77E+00  | 2,41E+00  | 2,47E+00  | 2,41E+00         | 2,00E+00  | 2,06E+00  | 3,63E+00  | 2,69E+00  | 2,51E+00  | 2,79E+00  | 1,94E+00        |
|                             | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA       | NDA       | NDA       | NDA       | NDA             |
|                             | Total A-C | 2,11E+00  | 3,21E+00  | 2,98E+00  | 2,96E+00  | 2,93E+00         | 2,68E+00  | 2,48E+00  | 4,39E+00  | 3,30E+00  | 3,03E+00  | 3,33E+00  | 2,38E+00        |
|                             |           | Focus A   | Focus B   | Focus C   | Focus Ds  | Focus Dg         | Focus D/A | Focus E   | Focus Ez  | Focus F   | Focus Lp  | Focus SQ  | Focus Flexiform |
|                             | A1-A3     | 5,23E-05  | 8,13E-05  | 7,38E-05  | 9,10E-05  | 7,69E-05         | 7,45E-05  | 7,49E-05  | 9,12E-05  | 8,94E-05  | 9,86E-05  | 9,78E-05  | 5,39E-05        |
| R adioactive waste disposed | A4-A5     | -4,98E-06 | -5,66E-06 | -5,01E-06 | -4,41E-06 | -4,65E-06        | -3,46E-06 | -3,72E-06 | -1,41E-05 | -5,29E-06 | -4,20E-06 | -5,38E-06 | -3,93E-06       |
| kg/FU kg/FU                 | B 1-B7    | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00         | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00  | 0,00E+00        |
| 0                           | C1-C4     | -2,76E-05 | -3,49E-05 | -2,27E-05 | -2,92E-05 | -2,35E-05        | -2,40E-05 | -2,98E-05 | -2,36E-05 | -2,60E-05 | -3,12E-05 | -3,44E-05 | -6,04E-05       |
|                             | D         | NDA       | NDA       | NDA       | NDA       | NDA              | NDA       | NDA       | NDA       | NDA       | NDA       | NDA       | NDA             |

## Output flow

| Environmental impacts                |           |          |             |          |          |          |           |          |          |          |          |          |                 |
|--------------------------------------|-----------|----------|-------------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|-----------------|
| Parameters                           |           | Focus A  | Focus B     | Focus C  | Focus Ds | Focus Dg | Focus D/A | Focus E  | Focus Ez | Focus F  | Focus Lp | Focus SQ | Focus Flexiform |
| Components for re-use kgf U          | A1-A3     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | A4-A5     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | B1-B7     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | C1-C4     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | D         | NDA      | NDA         | NDA      | NDA      | NDA      | NDA       | NDA      | NDA      | NDA      | NDA      | NDA      | NDA             |
|                                      | Total A-C |          |             |          |          |          |           |          |          |          |          |          |                 |
| Materials for recycling kgFU         |           | Focus A  | Focus B     | Focus C  | Focus Ds | Focus Dg | Focus D/A | Focus E  | Focus Ez | Focus F  | Focus Lp | Focus SQ | Focus Flexiform |
|                                      | A1-A3     | 2,53E-02 | 4, 14E - 02 | 4,51E-02 | 5,35E-02 | 4,77E-02 | 4,14E-02  | 3,79E-02 | 6,60E-02 | 5,34E-02 | 5,26E-02 | 5,07E-02 | 2,56E-02        |
|                                      | A4-A5     | 1,13E-02 | 1,30E-02    | 1,36E-02 | 1,86E-02 | 1,71E-02 | 1,52E-02  | 1,35E-02 | 1,41E-02 | 1,59E-02 | 1,74E-02 | 1,39E-02 | 9,21E-03        |
|                                      | B1-B7     | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | C1-C4     | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | D         | NDA      | NDA         | NDA      | NDA      | NDA      | NDA       | NDA      | NDA      | NDA      | NDA      | NDA      | NDA             |
|                                      | Total A-C | 3,66E-02 | 5,44E-02    | 5,87E-02 | 7,20E-02 | 6,48E-02 | 5,66E-02  | 5,14E-02 | 8,01E-02 | 6,93E-02 | 7,00E-02 | 6,46E-02 | 3,48E-02        |
| Materials for energy reovery - kgf-U |           | Focus A  | Focus B     | Focus C  | Focus Ds | Focus Dg | Focus D/A | Focus E  | Focus Ez | Focus F  | Focus Lp | Focus SQ | Focus Flexiform |
|                                      | A1-A3     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | A4-A5     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | B 1-B7    |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | C1-C4     |          |             |          |          |          |           |          |          |          |          |          |                 |
|                                      | D         | NDA      | NDA         | NDA      | NDA      | NDA      | NDA       | NDA      | NDA      | NDA      | NDA      | NDA      | NDA             |
|                                      | Total A-C |          |             |          |          |          |           |          |          |          |          |          |                 |
| Exported energy M.J.F.U              |           | Focus A  | Focus B     | Focus C  | Focus Ds | Focus Dg | Focus D/A | Focus E  | Focus Ez | Focus F  | Focus Lp | Focus SQ | Focus Flexiform |
|                                      | A1-A3     | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | A4-A5     | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | B 1-B7    | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | C1-C4     | 0,00E+00 | 0,00E+00    | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00        |
|                                      | D         | NDA      | NDA         | NDA      | NDA      | NDA      | NDA       | NDA      | NDA      | NDA      | NDA      | NDA      | NDA             |
|                                      | Total A-C |          |             |          |          |          |           |          |          |          |          |          |                 |

### Summary

|   | Focus A | F ocus B | F ocus C | Focus Ds | F ocus Dg | Focus D/A | F ocus E | Focus E z | F ocus F | Focus L p | Focus SQ | F ocus<br>F lexiform |
|---|---------|----------|----------|----------|-----------|-----------|----------|-----------|----------|-----------|----------|----------------------|
| Global warming                          | 2,59    | 4,10     | 4,26     | 4,62     | 4,24      | 4,32      | 3,66     | 5,92      | 4,90     | 4,66      | 4,88     | 3,13                 |
| Non-renewable resources consumption [1] | 31      | 57       | 59       | 65,39    | 59,41     | 59,71     | 50,66    | 85,30     | 72,55    | 64,52     | 70,99    | 37,99                |
| Energy consumption (2)                  | 53      | 94       | 101      | 114,43   | 102,14    | 97,44     | 85,45    | 147,43    | 122,30   | 111,79    | 122,13   | 61,87                |
| Water consumption [3]                   | 0,04    | 0,07     | 0,07     | 0,08     | 0,08      | 0,07      | 0,06     | 0,11      | 0,09     | 0,08      | 0,09     | 0,04                 |
| Waste production [4]                    | 2,11    | 3,21     | 2,98     | 2,96     | 2,93      | 2,68      | 2,48     | 4,39      | 3,30     | 3,03      | 3,33     | 2,38                 |

<sup>[1]</sup> This indicator corresponds to the abiotic depletion potential of fassil resources.

[2] This indicator corresponds to the total use of primary energy.

[3] This indicator corresponds to the use of net fresh water.

[4] This indicator corresponds to the sum of hazardous, non-hazardous and radioactive waste disposed.

## **Reference list**

**ISO 354:2003**: Acoustics – Measurement of sound absorption in a reverberation room

Finnish M1: Emission classification of building materials (M1 Classification): general instructions 12 November 2014

Eurofins Indoor Air Comfort: Eurofins Indoor Air Comfort GOLD and Indoor Air Comfort Version 7.0 May 2020

Reach: EU REACH Regulation (EC) No 1907/2006

LCA report: Project\_report\_on\_Ecophon\_LCA\_2021-03-03

EN 15804:2012+A1:2013: Sustainability of construction works - Environmental product declarations -

Acoustical systems solutions (sub-oriented PCR; appendix to PCR 2012:01) - previously Acoustic ceilings.

PCR 2012:01 Construction products and construction services (version 2.32 dated 2020-07-01)

### Difference from previous versions

New company logo and correction of few product weights on page 3.

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