

## Environmental product declaration according to ISO 14025

Office swivel chair, acc. to EN 1335-1, EN 1335-2 and EN 1335-3 GS – tested safety, certified ergonomics reddot Design Award Winner 2013 poi Swivel chair with multifunctional arms

wiesner hager



EPD Declaration number TA 22012 1634 5433-101 02303470330

# wiesner hager



### **Environmental Product Declaration**

EPD

Design: neunzig° design

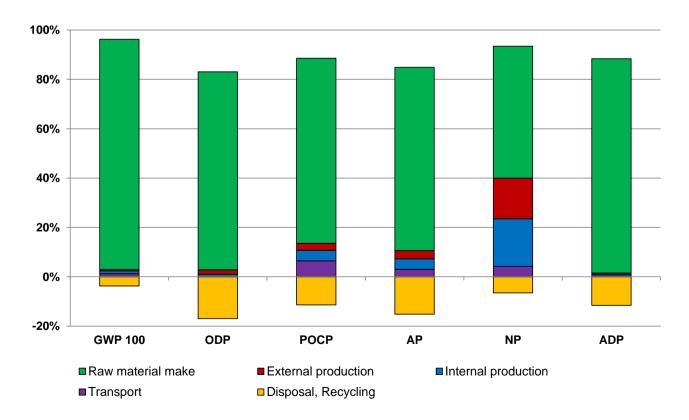
| oH c   | Manufacturer<br>Declaration holder |
|--|------------------------------------|
|  |                                    |
|  |                                    |
| <u>om</u>  |                                    |
| 02303470330  | EPD number                         |
|  | Declared product                   |
| inctional arms   |                                    |
| led according to EN ISO 14025. It describes<br>the listed product and gives the possibility<br>nilar products.   | Purpose                            |
| tion is based on the results of the operational life<br>og to ISO 14040 of the business year 2015/16.<br>The ses from acknowledged life cycle management<br>D's of the declaration holders upstream products.<br>om/en/sustainability/life-cycle-assessment/ | Data origin                        |
| his declaration was audited on 4 th September 2014   | Auditing                           |
| TÜV Austria Cert, Wien   | Auditor                            |
| TA 22012 1634 from 30 th September 2014, TÜV aration holder to generate EPD type III.  | Certification                      |
| 30 th September 2017. The compliance of the ed by annual internal and external evaluations.  | Validity                           |
| r of Sciene, environmental engineer  | Issuer                             |
|  | Date of issue                      |

| Content  | This declaration includes   |
|--|---|
| ooment   | - Pictures, descriptions and fulfilled standards  |
|  | - Information about life cycle assessment   |
|  | - Specific characteristics of the product configuration   |
|  | - Indicators of the life cycle and impact assessment  |
|  | - Details on the material composition of the product  |
|  | - Information about material certificates of the used raw materials   |
|  | - Recycling potentials  |
| System   | The assessment of the declared product covers the whole lifecycle process   |
| boundaries   | from raw materials, manufacturing and disposal, including all transportation.   |
|  | The anticipated lifespan of the product is 15 years, assuming the product is  |
|  | used in line with the manufacturer's guidance and for the application it was  |
|  | designed and intended. As a result of the high product quality, no repairs  |
|  | are expected during the lifetime and no environmental impact is anticipated.  |
|  | All recycling is carried out in line with European standards.   |
|  | Component parts are separated and recycled accordingly and any remaining  |
|  | waste material is incinerated under strict controls for the generation of energy.   |
|  | All transport distances including those of our suppliers and subcontractors   |
|  | are considered; all distances are calculated using route planning software.   |
|  |   |
|  | The distance between the declaration holder and the end user is 1000 km,  |
|  | the average distance between the end user and the waste management  |
|  | company is calculated at 50 km.   |
|  |   |
| Functional   | The general information of the LCA refers to the production, the use and  |
| unit   | the disposal of one unit of the product with an anticipated lifespan of   |
|  | 15 years.   |
| Application  | Office swivel chair, acc. to EN 1335-1, EN 1335-2 and EN 1335-3   |
|  | GS – tested safety, certified ergonomics  |
| Identification of<br>product                             | 5433-101 poi<br>poi Swivel chair with multifunctional arms, seat upholstered, back with mesh  |
| product  | por Swiver chair with multiful found anns, seat uphoistered, back with mesh   |
|  | delivery knocked down; cover 1 fabric S6401 anthracite; colour of plastic   |
| Configuration of   | 95 black; colour of plastic 2 210 black; mechanism synchronised mechanism   |
| •  | 30 plack, colour of plastic z z to plack. Incontanism synchroniscu mechanism  |
| •  |   |
| -  | without forward seat tilt; swivel base black plastic; leg finish hard castors   |
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| Configuration of<br>product<br>Description of<br>product | without forward seat tilt; swivel base black plastic; leg finish hard<br>castors  |

|                     |              | Input                       |        |        | Output   |           |  |  |
|---------------------|--------------|-----------------------------|--------|--------|----------|-----------|--|--|
| LCA-Indicators      | Primary ener | Primary energy demand Water |        | Burden | Domestic | Hazardous |  |  |
|                     | non ren.     | renewable                   | use    |        | waste    | waste     |  |  |
| Cause               | (MJ)         | (MJ)                        | (m³)   | (kg)   | (kg)     | (kg)      |  |  |
| Raw material make   | 2.056,80     | 111,80                      | 276,31 | 191,86 | 0,27     | 0,29      |  |  |
| External production | 5,02         | 43,11                       | 90,62  | 3,33   | 0,03     | 0,00      |  |  |
| Internal production | 15,57        | 102,01                      | 84,14  | 3,34   | 0,01     | 0,00      |  |  |
| Transport           | 23,22        | 0,94                        | 0,09   | 0,13   | 0,00     | 0,00      |  |  |
| Recycling potential | -388,41      | -53,64                      | -16,98 | -70,78 | 0,00     | -0,09     |  |  |
| Disposal            | 0,00         | 0,24                        | 0,01   | 0,00   | 0,17     | 0,00      |  |  |
| Total               | 1.712,21     | 204,45                      | 434,19 | 127,88 | 0,48     | 0,20      |  |  |

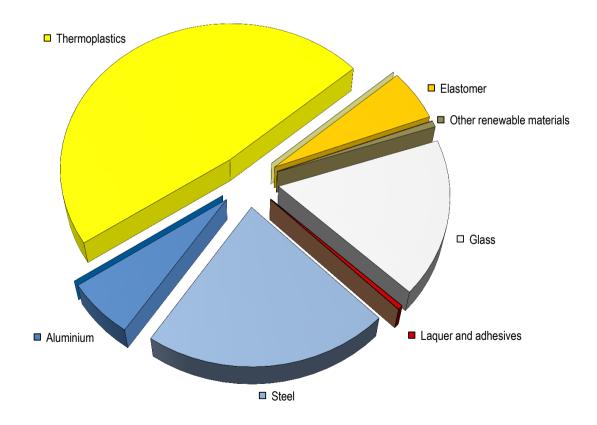
|                       | Output                              |   |                                       |   |   | Input                                 |
|-----------------------|-------------------------------------|---|---------------------------------------|---|---|---------------------------------------|
| Environmental impacts | Global<br>warming<br>GWP<br>CO₂ eq. | Ozone<br>depletion<br>ODP<br>CCl <sub>3</sub> F eq. | Ozone<br>creation<br>POCP<br>C2H₄ eq. | Acidifi-<br>cation<br>AP<br>SO <sub>2</sub> eq. | Nutrifi-<br>cation<br>NP<br>PO₄ <sup>-3</sup> eq. | Abiotic<br>resources<br>ADP<br>Sb eq. |
| Cause                 | (kg)                                | (mg)  | (g)                                   | (g)   | (g)   | (g)                                   |
| Raw material make     | 119,97                              | 3,39  | 53,26                                 | 358,24  | 33,53   | 1.229,81                              |
| External production   | 0,75                                | 0,07  | 2,02                                  | 15,87   | 10,31   | 3,40                                  |
| Internal production   | 1,47                                | 0,04  | 3,08                                  | 20,85   | 12,12   | 7,22                                  |
| Transport             | 1,60                                | 0,00  | 4,56                                  | 14,43   | 2,64  | 11,12                                 |
| Recycling potential   | -13,51                              | -0,79   | -8,11                                 | -73,16  | -4,14   | -164,22                               |
| Disposal              | 8,70                                | 0,08  | 0,00                                  | 0,19  | 0,06  | 0,00                                  |
| Total                 | 118,98                              | 2,79  | 54,81                                 | 336,41  | 54,52   | 1.087,34                              |

#### Impact Contribution



| Material composition      |        |        | Recycling content |           |          |    |  |
|---------------------------|--------|--------|-------------------|-----------|----------|----|--|
| Materials                 | Weight | Share  | material          | energetic | disposal | [] |  |
| Steel                     | 3,923  | 21,9%  | 3,844             | 0,000     | 0,078    | kg |  |
| Aluminium                 | 1,114  | 6,2%   | 1,092             | 0,000     | 0,022    | kg |  |
| Other metals              |        |        |                   |           |          |    |  |
| Thermoplastics            | 8,607  | 48,0%  | 0,577             | 7,169     | 0,861    | kg |  |
| Duromer                   |        |        |                   |           |          |    |  |
| Elastomer                 | 1,009  | 5,6%   | 0,000             | 0,952     | 0,058    | kg |  |
| Laminated plastics        |        |        |                   |           |          |    |  |
| Wood-Plastic Composites   |        |        |                   |           |          |    |  |
| Solid wood                |        |        |                   |           |          |    |  |
| Derived timber product    |        |        |                   |           |          |    |  |
| Paper, -board             | 0,001  | 0,0%   | 0,001             | 0,000     | 0,000    | kg |  |
| Leather                   |        |        |                   |           |          |    |  |
| Other renewable materials | 0,120  | 0,7%   | 0,000             | 0,014     | 0,001    | kg |  |
| Glass                     | 3,078  | 17,2%  | 1,918             | 0,000     | 1,160    | kg |  |
| Other mineral materials   |        |        |                   |           |          |    |  |
| Laquer and adhesives      | 0,078  | 0,4%   | 0,000             | 0,070     | 0,008    | kg |  |
| Chemicals                 |        |        |                   |           |          | 2  |  |
| Auxiliaries               | 0,011  | 0,1%   | 0,000             | 0,000     | 0,000    | kg |  |
| Total                     | 17,941 | 100,0% | 7,431             | 8,205     | 2,188    | kg |  |

#### Material composition



The proportion of secondary raw material in this product is 26,9%. It includes 0,7% renewable materials.

#### Laquer and adhesives

| Application        | Chemical characterisation      | Weight <sup>1</sup> | VOC <sup>2</sup> | Classific. <sup>3</sup> |
|--------------------|--------------------------------|---------------------|------------------|-------------------------|
| Wood glues         | -                              | -                   | -                | -                       |
| Hotmelt adhesives  | -                              | -                   | -                | -                       |
| Fabric glues       | Waterbased dispersion adhesive | 0,065 kg            | 0,0%             | -                       |
| Fabric glues       | Waterbased dispersion adhesive | 0,007 kg            | 0,0%             | CLP                     |
| Assembly adhesives | -                              | -                   | -                | -                       |
| Stains             | -                              | -                   | -                | -                       |
| Powder coatings    | Polyester powder lacquer       | 0,012 kg            | 0,0%             | -                       |
| Powder coatings    | EP/PES powder lacquer          | 0,03 kg             | 0,0%             | -                       |

The product is free of halogenated plastics (PVC).

<sup>1</sup> dry mass <sup>2</sup> before curing <sup>3</sup> acc. EU Directive

#### Material certificates

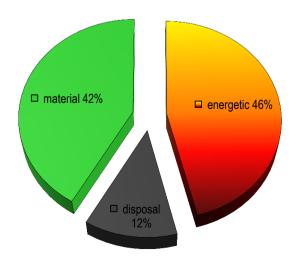
The following certificates are valid for the mentioned raw-material groups used in the product

Upholstery fabric: EU Ecolabel - licence DK/016/020 Upholstery fabric: Oeko-Tex Standard100 - certificate 1076-17401, product class III

Upholstery materials: Oeko-Tex Standard100 - certificate AMM 17680, product class I Upholstery materials: Oeko-Tex Standard100 - certificate 1011039, product class I Upholstery materials: Oeko-Tex Standard100 - certificate 09.HTR.66245, product class I



#### **Recycling rate (EoL)**



The chart shows the presently usual recycling rate in Western Europe, based on the used material mix.

The thermal recycling will release energy to the amount of 280 MJ. This is equivalent to 7,8 litre of light fuel oil.

The remaining ash from the incineration will be disposed of in a landfil.

#### Publisher and picture credits

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#### Certification

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#### Specialist counselling

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