epddanmark

ECO PLATFORM EPD VERIFIED

Owner: FabricAir A/S
No.: MD-24129-EN
Issued: 19-12-2024
Valid to: 19-12-2029

3rd PARTY **VERIFIED**

EPD

VERIFIED ENVIRONMENTAL PRODUCT DECLARATION | **ISO 14025 & EN 15804**

Owner of declaration
FabricAir A/S
Sandvadsvej 2
DK-4600 Køge
CVR: 24204812

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
The declared ventilation ducts are from the Combi 90 series and are listed below:

- Type 8 suspension
- Type 1 suspension
- Type 3-AiO suspension
- Type 8-Rapid-360 SS suspension
- NozzFlow Type 5-HDG suspension
- JetFlow Type 5-HDG suspension
- Type 11a suspension (D-canal half round)

Number of declared datasets/product variations: 7

Production site
The data for the LCA are based on aggregated yearly averages for the manufacture of ventilation ducts for buildings, assembled at the production facility of FabricAir A/S at Alytus in Lithuania.

Use of Guarantees of Origin
☐ No certificates used
☒ Electricity covered by GoO
☐ Biogas covered by GoO

Declared unit
1 ventilation duct with 1 m² of fabric, including the materials required for its suspension system based on various diameters.

Year of production site data (A3)
2023

EPD version
1

Issued: 19-12-2024
Valid to: 19-12-2029

Basis of calculation
This EPD is developed and verified in accordance with the European standard EN 15804+A2.

Comparability
EPDs of construction products may not be comparable if they do not comply with the requirements in EN 15804. EPD data may not be comparable if the datasets used are not developed in accordance with EN 15804 and if the background systems are not based on the same database.

Validity
This EPD has been verified in accordance with ISO 14025 and is valid for 5 years from the date of issue.

Use
The intended use of an EPD is to communicate scientifically based environmental information for construction products, for the purpose of assessing the environmental performance of buildings.

EPD type
☐Cradle-to-gate with modules C1-C4 and D
☐Cradle-to-gate with options, modules C1-C4 and D
☒Cradle-to-grave and module D
☐Cradle-to-gate
☐Cradle-to-gate with options

CEN standard EN 15804 serves as the core PCR

Independent verification of the declaration and data, according to EN ISO 14025

☐ internal ☒ external

Third party verifier:

David Althoff Palm, Dalemarken AB

Martha Katrine Sørensen
EPD Danmark

Life cycle stages and modules (MND = module not declared)																
Product			Construction process		Use							End of life				Beyond the system boundary
Raw material supply	Transport	Manufacturing	Transport	Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Re-use, recovery and recycling potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Product information

Product description

FabricAir® Combi 90 products are designed for efficient air distribution in various building environments. These systems are typically installed as part of ceiling or wall setups, providing effective and uniform air distribution. The Combi 90 fabric is non-permeable, flame-retardant, antimicrobial, and Oeko-Tex 100 certified, making it ideal for applications where hygiene is crucial, such as in cleanrooms, healthcare facilities, and food processing areas.

The main product components for each declared product are shown in the table below.

Material	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round
	Weight% of declared product						
Adhesive	2.76	3.67	4.55	0.00	1.56	1.65	0.38
Aluminium	37.81	0.00	38.48	48.94	17.97	33.38	60.86
Steel	8.03	20.26	0.65	0.00	25.26	0.00	0.00
Stainless steel	0.00	1.98	0.00	5.48	0.85	6.50	2.67
Fabric	47.08	63.03	48.40	41.96	51.62	55.52	35.23
Plastic	3.76	10.32	7.37	3.12	2.42	2.27	0.35
Zinc	0.56	0.74	0.55	0.50	0.31	0.68	0.50
Sum	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**	**100.00**

Product packaging

The composition of the sales- and transport packaging of the products are shown in the table below.

Packaging material	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round
	kg/declared unit						
Cardboard	0.0174	0.0174	0.0174	0.0174	0.0174	0.0174	0.0174
LDPE bags	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006	0.0006
Pallet	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134	0.0134

Representativity

This declaration, including data collection and the modeled foreground system including results, represents the production of ventilation ducts at the production site in Lithuania. Product specific data are based on product specific material composition and annual company data related to waste and energy consumption for the year 2023 collected during the reporting period in 2024. When market specific datasets are utilized, the average recycled content in materials such as steel and stainless steel is considered.

Most background data are based on LCA for Experts LCA software and are less than 10 years old. Generally, the used background datasets are of high quality, and the majority of the datasets are only a couple of years old.

Hazardous substances

The Combi 90 products does not contain substances listed on the "Candidate List of Substances of Very High Concern for authorisation"

(http://echa.europa.eu/candidate-list-table)

Product(s) use

FabricAir® Combi 90 products are designed for efficient air distribution in various building environments. Once installed, FabricAir Combi 90 systems serve several key functions:

1. Air distribution: The FabricAir Combi 90 system is engineered to deliver uniform air distribution, crucial for maintaining consistent temperature and air quality, validated by its airflow capability of up to 40.8 kg/m³ .

2. Hygiene: The antimicrobial properties of the fabric prevent the growth of mold and bacteria, making these systems suitable for environments with stringent hygiene requirements.
3. Maintenance: The fabric is machine washable and retains its dimensions after washing (max 0.5% shrinkage.
4. Durability: The FabricAir® Combi 90 fabric is made to withstand rigorous daily use, as demonstrated by compliance with EN ISO 13934-1 for fabric strength and elongation.

Essential characteristics

The ventilation ducts from the Combi 90 series are covered by harmonised technical specification EN ISO 9001 for quality system, EN ISO 20645 and AATCC 100-2012 for antibacterial activity, EN ISO 14644-1 for clean rooms, and EN-13501-1 for fire resistance. The following standards are used for the testing procedures: EN ISO 12127:1997 (ASTM D3776-96) for surface density, EN ISO 5084:1996 (ASTM D1777-96) for thickness, EN ISO 9237:1995 (ASTM D737, Frazier) for air permeability, EN ISO 13934-1 for strength and elongation, EN ISO 5077 for dimensional change after washing (shrinkage), EN ISO 1773 for width, ISO 7211-2 for setting in warp and weft direction, ISO 105-X12:2016 for colour fastness to dry and wet rubbing, ISO 105-C10:2006 for colour fastness to washing, ISO 105-B02:2013 for colour fastness to light, and ISO 12947 for abrasion resistance.

Furthermore, the Combi 90 fabric comply with the Oeko-Tex Standard 100 EN ISO 17050-1 and the declaration of Conformity, UL 2518ICC AC167, NFPA 90A, as well as the environmental management system ISO 14001. Lastly all fabrics from FabricAir comply with the REACH and ROCH directive.

Declaration of performance according to EU regulation 305/2011 is available for all declared product variations.

Further technical information can be obtained by contacting the manufacturer or on the manufacturer's website:

https://www.fabricair.com/dk/produkter/kanalsystemer/

Reference Service Life (RSL)

The reference service life of FabricAir Combi 90 products is primarily influenced by the durability and performance of the fabric and its components. Based on warranty period, typical usage, maintenance and care scenarios as well as durability factors the RSL can be reliably set at 30 years. The actual service life may extend beyond this period.

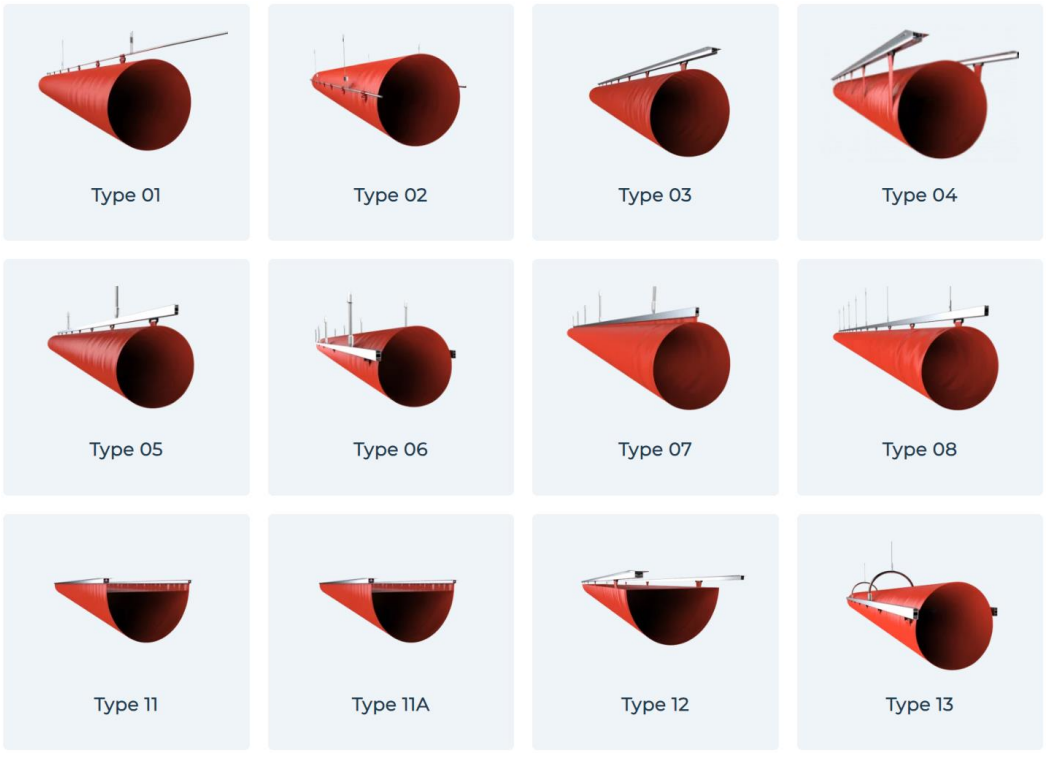
Product overview

The table below illustrates the differences between each Combi 90 ventilation duct product, along with the dimensions used for calculating the EPD results prior to scaling to 1 m² of fabric.

Product ID	Description	Dimensions
Combi 90 with Type 8 Suspension	The FabricAir® Combi 90 with Type 8 Suspension is a robust and durable air distribution system. The non-permeable, flame-retardant fabric is Oeko-Tex 100 certified and antimicrobial. It is machine washable, retaining its dimensions after washing with minimal shrinkage. This system is designed for areas requiring strict hygiene standards and offers uniform air distribution. The Type 8 Suspension ensures the duct remains in place, providing reliable and consistent performance.	Ø500x9.000 mm
Combi 90 with Type 1 Suspension	The FabricAir® Combi 90 with Type 1 Suspension features a non-permeable polyester fabric that is both flame-retardant and antimicrobial. Certified by Oeko-Tex 100, this fabric maintains its integrity after multiple washes. The Type 1 Suspension system supports the duct, ensuring it remains taut and effective in air distribution. This configuration is ideal for environments where hygiene and durability are paramount.	Ø500x9.000 mm
Combi 90 with Type 3-AiO Suspension	The FabricAir® Combi 90 paired with Type 3-AiO Suspension offers an all-in-one support system that keeps the duct stretched even when air is not flowing. The non-permeable, flame-retardant fabric is antimicrobial	Ø500x9.000 mm

	and certified by Oeko-Tex 100. It is designed for easy maintenance and retains its dimensions after washing. This setup is perfect for maintaining high hygiene standards while ensuring consistent air distribution.	
Combi 90 with Type 8-Rapid-360 SS Suspension	The FabricAir® Combi 90 with Type 8-Rapid-360 SS Suspension combines durability with advanced suspension technology. The non-permeable, flame-retardant fabric is antimicrobial and Oeko-Tex 100 certified. It is designed to be machine washable, with minimal shrinkage. The Type 8-Rapid-360 SS Suspension enables quick installation and removal, making it ideal for environments requiring frequent maintenance.	Ø500x9.000 mm
Combi 90 with NozzFlow Type 5-HDG Suspension	The FabricAir® Combi 90 with NozzFlow Type 5-HDG Suspension is designed for large-scale air distribution. The non-permeable, flame-retardant fabric is antimicrobial and Oeko-Tex 100 certified, ensuring high hygiene standards. The NozzFlow Type 5-HDG Suspension system provides precise airflow control, making it suitable for environments where targeted air distribution is critical.	Ø1000x9.000 mm
Combi 90 with JetFlow Type 5-HDG Suspension	The FabricAir® Combi 90 with JetFlow Type 5-HDG Suspension features a robust and durable fabric that is non-permeable, flame-retardant, and antimicrobial. Certified by Oeko-Tex 100, this fabric maintains its dimensions after washing. The JetFlow Type 5-HDG Suspension system ensures high-velocity air distribution, making it ideal for environments requiring powerful and directed airflow.	Ø1000x9.000 mm
Combi 90 with Type 11a Suspension (D-canal half round)	The FabricAir® Combi 90 with Type 11a Suspension offers a semi-round duct design for optimized airflow. The non-permeable, flame-retardant fabric is antimicrobial and Oeko-Tex 100 certified, ensuring it meets high hygiene standards. The Type 11a Suspension keeps the duct securely in place, making it suitable for various applications where consistent and effective air distribution is required.	Ø500x9.000 mm

Picture of product(s)



LCA background

Declared unit

The LCI and LCIA results in this EPD relates to a Combi 90 ventilation duct with dimensions 1 m^2.

Name	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Declared unit	1							m^2
Density	0.689	0.518	0.695	0.764	0.607	0.574	0.888	kg/m^2
Conversion factor to 1 kg	1.452	1.932	1.438	1.308	1.647	1.741	1.126	kg

The declared unit in this EPD relates to 1 m^2 of non-permeable, flame-retardant, antimicrobial, and Oeko-Tex 100 certified Combi 90 fabric with a metal suspension system with a possible of air flow up to 40.8 kg/m^3, for a period of 30 years.

The reference product fabric has a density of 300 g/m^2, and the product have a temperature range between -40 C – 140 C with a relative humidity of 0-100%, making it ideal for applications where hygiene is crucial, such as in cleanrooms, healthcare facilities, and food processing areas.

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804 version A2:2019 as well as with reference to the NPCR 030:2021 Part B for ventilation components for modelling the construction process module.

Energy modelling principles

Foreground system:

The Combi 90 products are produced using energy covered by GO in Lithuania, and this is modelled with the specific power source: Wind and solar from Lithuania. Remaining energy processes is modelled using country specific residual grid mixes.

Information about the energy mix in the foreground system:

Dataset	EF	Unit
Residual grid mix, LT, 2022	704.79	g CO_2e/kWh
Residual grid mix, RER, 2022	503.92	g CO_2e/kWh
Electricity from photovoltaic, LT, 2020	37.7	g CO_2e/kWh
Electricity from wind power, LT, 2020	11.9	g CO_2e/kWh
Pellet boiler 20-120 kW, LT, 2023	86.04	kg CO_2e/MJ

Background system:

Upstream processes are modelled using electric grid mix from the specific country. Downstream processes are modelled using the European residual grid mix, as the Combi 90 products are sold in Europe and thus also waste handled in Europe.

System boundary

This EPD is based on a cradle-to-grave LCA, in which approximately 99.95 weight-% has been accounted for.

The general rules for the exclusion of inputs and outputs follows the requirements in EN 15804, 6.3.5, where the total of neglected input flows per module shall be a maximum of 5 % of energy usage and mass and 1 % of energy usage and mass for unit processes.

Product stage (A1-A3) includes:

A1 – Extraction and processing of raw materials

A2 – Transport to the production site

A3 – Manufacturing processes

The product stage comprises the acquisition of all raw materials, products and energy, transport to the production site, packaging and waste processing up to the ”end-of-waste” state or final disposal. The LCA results are declared in aggregated form for the product stage, which means, that the sub-modules A1, A2 and A3 are declared as one module A1-A3.

The production of the ventilation ducts are equal for each respective model. Initially, the fabric is cut with a lazer cutter and sewn together with sewing machines. The suspensions system is assembled manually. All machines runs on electricity. All products then undergo quality inspection and are led to the packaging station, where they are placed in cardboard boxes either as singular products or multiple in the same box. The amount of product in packaging depends on each product and order.

Construction process stage (A4-A5) includes:

The transport from FabricAir A/S to the construction site, is included with a default distance of 300 km modelled as road transport, as defined in the NPCR 030:2021 Part B for ventilation components - version 1.1.

The installation phase is purely manual labor. There are thus no additional ancillary materials from installation as the production from screws, wall anchors, and connectors are already included in the product in module A3. The installation itself consumes minimal energy, mainly through the use of handheld tools and thus direct emissions are negligible during installation.

No materials from the product are wasted during installation, however the packaging (cardboard and plastic) is assumed to be recycled and incinerated with energy recovery. The benefits are credited in module D. The waste is sent to a waste treatment facility with a transport distance of 50 km.

Use stage (B1-B7) includes:

No environmental aspects and impacts are connected to the normal use of the products, and thus no environmental impacts are included in this module.

FabricAir® Combi 90 products are designed to be low-maintenance, durable, and long-lasting. These systems do not require regular washing under normal conditions, which simplifies their maintenance and ensures continuous operation without frequent interruptions. It is however assumed that washing is done for the ventilation ducts once every 10 years. Here the water usage is 11 l and 1.65 ml of laundry detergent per m^2 of washed fabric. Additionally, it is assumed that the washing machine utilize 0.086 kWh/m^2.

The ventilation ducts do not require any repairs, replacement or refurbishment throughout their reference service life. Consequently, these modules incur no environmental impacts associated with repair activities.

The main energy consumption during the use phase is associated with the operation of HVAC systems that push air through the FabricAir ducts. This includes fans and other mechanical components. The electricity consumption associated with the operation of the HVAC system is not directly related to the ventilation duct system and is therefore outside the system boundary of this study. Additionally, no water, excipients or ancillary materials are consumed or required during the normal use phase of FabricAir’s Combi 90 ducts.

End of Life (C1-C4) includes:

The product is assumed installed and demolished in Europe. The scenario used to model the end-of-life, is also based on the current typical/average treatment of ventilation ducts units in Europe 2023.

Initially, the fabric ducts are detached from the suspension systems. This typically involves unzipping or unclipping the ducts from the rails or hooks. Basic hand tools such as screwdrivers, pliers, and possibly cutting tools for any secure attachments are used for the dismantling of the ventilation ducts. These steps are all done manually and while there might be use of screwdrivers, knives for cutting, and other basic tools for disassembly, these have negligible effect as the time used is so short. Thus, no environmental impacts are associated with deconstruction.

Once removed, the suspension systems are sorted for recycling where it is shredded. After shredding a fraction of the metals, as well as plastic parts, are removed in the sorting process and sorted as fluff and sent to the local landfill.

Approximately 87% of discarded textiles in Europe are either incinerated or landfilled. Therefore, two scenarios have been made for the waste handling of the fabric. 1) 100% of the fabric waste is incinerated at a local facility. The incineration process generates energy, which substitutes electricity grid mix and natural gas used for heating. 2) 100% of the fabric waste is landfilled at the local landfill facility with no attributed leaching.

At the construction site, the waste is loaded onto a truck used for the waste transport to the regional collection and recycling facility, the incineration plant or the landfill with an assumed average transport distance of 50 km.

Re-use, recovery and recycling potential (D) includes:

Any declared benefits and loads from net flows leaving the product system that have not been allocated as co-products and that have passed the end-of-waste state are included in module D.

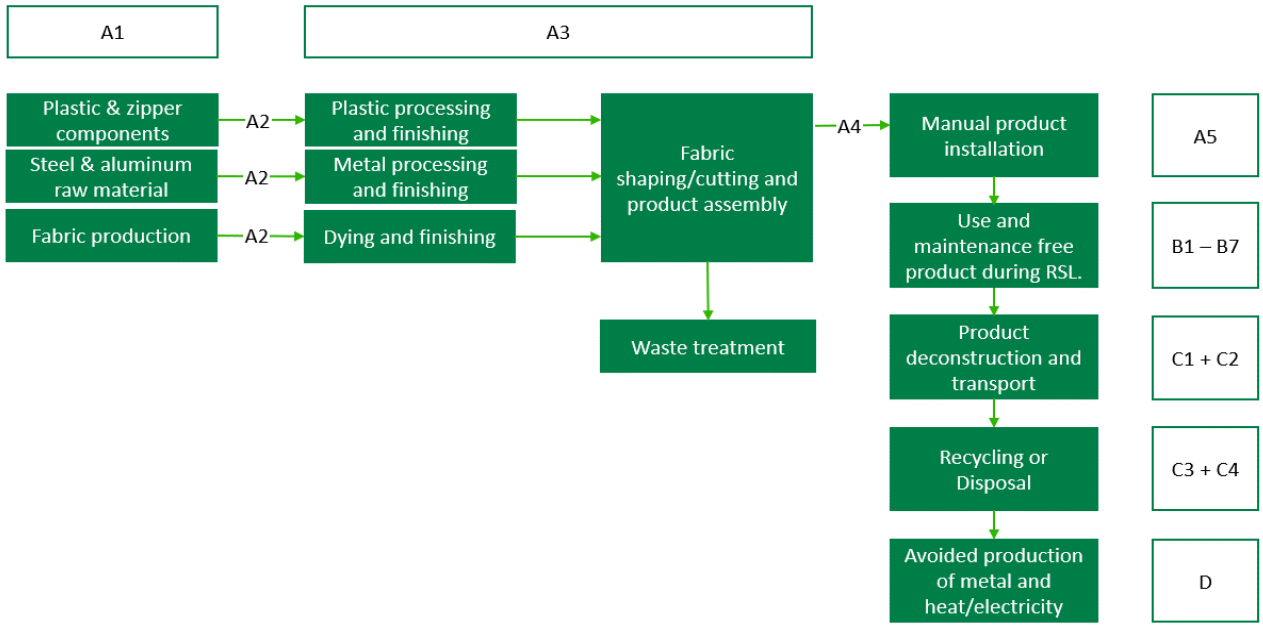
The benefits are calculated using current average substitution processes. The recovered materials in module C3 include aluminium, steel, and stainless steel.

The generated energy from incineration of fabric waste in C3 is assigned to module D. Electricity generated from waste incineration is credited for with the specific residual grid mix for Europe, while thermal heat is credited for as natural gas for Europe. This is not applied for materials that are landfilled as the avoided impact of electricity production and/or thermal energy recovery from landfill gas is modelled as EEE.

Recycling and incineration of the packaging material used for the Combi 90 products, accounted for in module A5, are included in module D similarly to the description above.

Flow diagram

The process diagram below represents the life cycle of a Combi 90 Series product from FabricAir A/S.



LCA results

These are the LCA results for the seven different FabricAir® Combi 90 products declared in this EPD. The end-of-life-scenarios that are defined with a * indicate the scenario where the fabric is landfilled. The end-of-life scenario without a star indicate a scenario where the fabric is incinerated.

Below are the LCA results for the **Combi 90 type 8 suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	8,65E+00	1,85E-02	2,30E-03	0,00E+00	2,15E-01	0,00E+00	0,00E+00	2,98E-03	7,04E-01	9,13E-04	-2,30E+00	1,58E-02	9,75E-03	-2,09E+00
GWP-fossil	[kg CO_2 eq.]	8,77E+00	1,82E-02	1,45E-03	0,00E+00	2,14E-01	0,00E+00	0,00E+00	2,93E-03	7,03E-01	9,14E-04	-2,29E+00	1,56E-02	9,74E-03	-2,08E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,31E-01	4,35E-05	1,30E-02	0,00E+00	5,27E-04	0,00E+00	0,00E+00	6,99E-06	1,63E-04	0,00E+00	-5,48E-03	1,39E-04	0,00E+00	-4,58E-03
GWP-luluc	[kg CO_2 eq.]	4,86E-03	3,06E-04	1,39E-06	0,00E+00	3,37E-05	0,00E+00	0,00E+00	4,92E-05	8,47E-06	5,45E-06	-4,20E-04	6,78E-06	3,80E-05	-4,01E-04
ODP	[kg CFC 11 eq.]	2,46E-07	2,68E-15	1,67E-16	0,00E+00	2,21E-12	0,00E+00	0,00E+00	4,31E-16	3,97E-13	2,47E-15	-1,49E-11	3,48E-13	3,16E-14	-1,30E-11
AP	[mol H^+ eq.]	2,39E-02	2,83E-05	7,32E-07	0,00E+00	5,17E-04	0,00E+00	0,00E+00	4,55E-06	9,67E-05	6,47E-06	-8,15E-03	3,01E-05	5,93E-05	-7,93E-03
EP-fresh-water	[kg P eq.]	4,64E-05	7,77E-08	4,19E-10	0,00E+00	7,04E-07	0,00E+00	0,00E+00	1,25E-08	7,54E-08	1,12E-08	-2,98E-06	6,48E-08	5,07E-06	-2,63E-06
EP-marine	[kg N eq.]	9,48E-03	1,08E-05	2,20E-07	0,00E+00	8,97E-05	0,00E+00	0,00E+00	1,74E-06	2,69E-05	1,66E-06	-1,91E-03	7,56E-06	1,30E-05	-1,85E-03
EP-terre-strial	[mol N eq.]	7,87E-02	1,27E-04	3,27E-06	0,00E+00	9,40E-04	0,00E+00	0,00E+00	2,04E-05	4,04E-04	1,83E-05	-2,08E-02	7,93E-05	1,43E-04	-2,01E-02
POCP	[kg NMVOC eq.]	2,07E-02	2,81E-05	5,79E-07	0,00E+00	2,66E-04	0,00E+00	0,00E+00	4,52E-06	7,41E-05	5,09E-06	-5,49E-03	2,00E-05	4,15E-05	-5,30E-03
ADPm[1]	[kg Sb eq.]	8,53E-06	1,59E-09	9,58E-12	0,00E+00	1,11E-08	0,00E+00	0,00E+00	2,55E-10	3,41E-09	5,92E-11	-1,97E-07	2,90E-09	6,46E-10	-1,79E-07
ADPf[1]	[MJ]	1,47E+02	2,40E-01	1,65E-03	0,00E+00	4,14E+00	0,00E+00	0,00E+00	3,86E-02	4,34E-01	1,21E-02	-2,82E+01	3,26E-01	1,61E-01	-2,45E+01
WDP[1]	[m^3 world eq. deprived]	3,87E-02	2,82E-04	2,35E-04	0,00E+00	2,19E+00	0,00E+00	0,00E+00	4,54E-05	6,56E-02	1,05E-04	-3,36E-01	4,25E-03	1,25E-03	-3,13E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease incidence]	6,62E-07	3,08E-10	5,21E-12	0,00E+00	4,80E-09	0,00E+00	0,00E+00	4,95E-11	6,09E-10	8,10E-11	-1,52E-07	2,52E-10	6,28E-10	-1,50E-07
IRP[2]	[kBq U235 eq.]	1,01E+00	6,34E-05	1,89E-06	0,00E+00	7,39E-02	0,00E+00	0,00E+00	1,02E-05	9,47E-03	1,49E-05	-1,88E-01	8,48E-03	3,03E-04	-1,42E-01
ETP-fw[1]	[CTUe]	4,53E+01	1,78E-01	1,04E-03	0,00E+00	4,43E-01	0,00E+00	0,00E+00	2,86E-02	1,39E-01	8,46E-03	-7,88E+00	9,59E-02	3,31E-01	-7,35E+00
HTP-c[1]	[CTUh]	2,10E-08	3,59E-12	4,05E-14	0,00E+00	2,44E-11	0,00E+00	0,00E+00	5,78E-13	9,14E-12	1,70E-13	-1,62E-09	5,29E-12	4,96E-12	-1,58E-09
HTP-nc[1]	[CTUh]	9,45E-08	1,61E-10	1,80E-12	0,00E+00	1,04E-09	0,00E+00	0,00E+00	2,60E-11	1,22E-10	6,41E-12	-1,84E-08	8,27E-11	1,07E-10	-1,74E-08
SQP[1]	-	1,05E+02	1,18E-01	7,14E-04	0,00E+00	3,64E-01	0,00E+00	0,00E+00	1,90E-02	1,72E-01	3,31E-03	-5,12E+00	1,37E-01	2,86E-02	-4,39E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	1,08E+02	2,07E-02	1,42E+00	0,00E+00	5,47E-01	0,00E+00	0,00E+00	3,32E-03	2,64E-01	2,11E-03	-1,52E+01	2,33E-01	2,46E-02	-1,39E+01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	1,08E+02	2,07E-02	7,07E-01	0,00E+00	5,47E-01	0,00E+00	0,00E+00	3,32E-03	2,64E-01	2,11E-03	-1,52E+01	2,33E-01	2,46E-02	-1,39E+01
PENRE	[MJ]	1,47E+02	2,40E-01	5,94E-02	0,00E+00	4,14E+00	0,00E+00	0,00E+00	3,86E-02	1,87E+01	1,21E-02	-2,82E+01	1,86E+01	1,61E-01	-2,45E+01
PENRM	[MJ]	9,72E+00	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,15E+00	0,00E+00	0,00E+00	-9,15E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,57E+02	2,40E-01	1,65E-03	0,00E+00	4,14E+00	0,00E+00	0,00E+00	3,86E-02	4,34E-01	1,21E-02	-2,82E+01	3,26E-01	1,61E-01	-2,45E+01
SM	[kg]	6,41E-02	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	4,59E-02	2,30E-05	5,63E-06	0,00E+00	5,14E-02	0,00E+00	0,00E+00	3,70E-06	1,62E-03	3,20E-06	-1,06E-02	1,78E-04	3,73E-05	-9,60E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,16E-06	9,18E-12	3,31E-13	0,00E+00	5,22E-06	0,00E+00	0,00E+00	1,48E-12	5,30E-10	3,01E-12	-1,74E-08	4,65E-10	3,99E-11	-1,49E-08
NHWD	[kg]	7,17E-01	3,92E-05	4,16E-05	0,00E+00	1,54E-02	0,00E+00	0,00E+00	6,30E-06	3,52E-03	6,06E-02	-8,47E-01	2,66E-04	3,60E-01	-8,45E-01
RWD	[kg]	7,34E-03	4,37E-07	1,93E-08	0,00E+00	4,80E-04	0,00E+00	0,00E+00	7,03E-08	5,77E-05	1,28E-07	-1,68E-03	5,15E-05	2,23E-06	-1,41E-03
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	1,36E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	3,09E-01	0,00E+00	0,00E+00	3,09E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,26E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,87E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	3,15E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
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BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 type 1 suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 1 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	5,85E+00	1,40E-02	2,30E-03	0,00E+00	1,61E-01	0,00E+00	0,00E+00	2,21E-03	6,96E-01	1,27E-03	-3,71E-01	8,63E-03	1,01E-02	-1,64E-01
GWP-fossil	[kg CO_2 eq.]	5,99E+00	1,37E-02	1,45E-03	0,00E+00	1,61E-01	0,00E+00	0,00E+00	2,17E-03	6,96E-01	1,27E-03	-3,70E-01	8,54E-03	1,01E-02	-1,64E-01
GWP-bio-genic	[kg CO_2 eq.]	-1,47E-01	3,28E-05	1,30E-02	0,00E+00	3,96E-04	0,00E+00	0,00E+00	5,19E-06	9,83E-05	0,00E+00	-6,03E-04	7,44E-05	0,00E+00	2,96E-04
GWP-luluc	[kg CO_2 eq.]	4,11E-03	2,31E-04	1,39E-06	0,00E+00	2,54E-05	0,00E+00	0,00E+00	3,65E-05	9,10E-06	7,56E-06	-1,08E-04	7,41E-06	4,00E-05	-8,89E-05
ODP	[kg CFC 11 eq.]	2,77E-07	2,02E-15	1,67E-16	0,00E+00	1,66E-12	0,00E+00	0,00E+00	3,20E-16	2,35E-13	3,44E-15	-1,38E-12	1,85E-13	3,25E-14	4,83E-13
AP	[mol H^+ eq.]	1,63E-02	2,13E-05	7,32E-07	0,00E+00	3,89E-04	0,00E+00	0,00E+00	3,38E-06	8,30E-05	8,98E-06	-6,14E-04	1,64E-05	6,18E-05	-3,97E-04
EP-fresh-water	[kg P eq.]	4,23E-05	5,86E-08	4,19E-10	0,00E+00	5,29E-07	0,00E+00	0,00E+00	9,28E-09	4,61E-08	1,66E-08	-3,66E-07	3,55E-08	5,08E-06	-1,95E-08
EP-marine	[kg N eq.]	7,91E-03	8,14E-06	2,20E-07	0,00E+00	6,75E-05	0,00E+00	0,00E+00	1,29E-06	2,34E-05	2,31E-06	-1,58E-04	4,16E-06	1,37E-05	-9,20E-05
EP-terre-strial	[mol N eq.]	6,62E-02	9,57E-05	3,27E-06	0,00E+00	7,07E-04	0,00E+00	0,00E+00	1,51E-05	3,68E-04	2,54E-05	-1,71E-03	4,38E-05	1,50E-04	-9,98E-04
POCP	[kg NMVOC eq.]	1,74E-02	2,12E-05	5,79E-07	0,00E+00	2,00E-04	0,00E+00	0,00E+00	3,35E-06	6,51E-05	7,06E-06	-4,92E-04	1,10E-05	4,34E-05	-3,05E-04
ADPm[1]	[kg Sb eq.]	9,72E-06	1,20E-09	9,58E-12	0,00E+00	8,34E-09	0,00E+00	0,00E+00	1,89E-10	2,07E-09	8,22E-11	-1,90E-07	1,56E-09	6,68E-10	-1,72E-07
ADPf[1]	[MJ]	1,05E+02	1,81E-01	1,65E-03	0,00E+00	3,11E+00	0,00E+00	0,00E+00	2,86E-02	2,85E-01	1,68E-02	-4,96E+00	1,76E-01	1,66E-01	-1,29E+00
WDP[1]	[m^3 world eq. deprived]	3,85E-02	2,13E-04	2,35E-04	0,00E+00	1,64E+00	0,00E+00	0,00E+00	3,36E-05	6,35E-02	1,46E-04	-2,64E-02	2,27E-03	1,28E-03	-3,58E-03
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
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Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 1 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	5,72E-07	2,32E-10	5,21E-12	0,00E+00	3,61E-09	0,00E+00	0,00E+00	3,67E-11	4,94E-10	1,12E-10	-7,67E-09	1,38E-10	6,59E-10	-5,89E-09
IRP[2]	[kBq U235 eq.]	3,56E-01	4,78E-05	1,89E-06	0,00E+00	5,56E-02	0,00E+00	0,00E+00	7,56E-06	5,51E-03	2,07E-05	-4,32E-02	4,52E-03	3,09E-04	2,05E-03
ETP-fw[1]	[CTUe]	3,22E+01	1,34E-01	1,04E-03	0,00E+00	3,33E-01	0,00E+00	0,00E+00	2,12E-02	9,60E-02	1,18E-02	-7,47E-01	5,33E-02	3,35E-01	-2,22E-01
HTP-c[1]	[CTUh]	3,64E-08	2,71E-12	4,05E-14	0,00E+00	1,83E-11	0,00E+00	0,00E+00	4,29E-13	6,71E-12	2,36E-13	-3,00E-10	2,86E-12	5,02E-12	-2,57E-10
HTP-nc[1]	[CTUh]	7,85E-08	1,22E-10	1,80E-12	0,00E+00	7,78E-10	0,00E+00	0,00E+00	1,93E-11	8,57E-11	8,90E-12	-7,97E-10	4,61E-11	1,09E-10	1,89E-10
SQP[1]	-	9,67E+01	8,89E-02	7,14E-04	0,00E+00	2,74E-01	0,00E+00	0,00E+00	1,41E-02	1,10E-01	4,59E-03	-6,28E-01	7,46E-02	2,99E-02	9,97E-02
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
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Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 1 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	8,58E+01	1,56E-02	1,42E+00	0,00E+00	4,11E-01	0,00E+00	0,00E+00	2,46E-03	1,56E-01	2,92E-03	-1,05E+00	1,24E-01	2,54E-02	1,94E-01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	8,65E+01	1,56E-02	7,07E-01	0,00E+00	4,11E-01	0,00E+00	0,00E+00	2,46E-03	1,56E-01	2,92E-03	-1,05E+00	1,24E-01	2,54E-02	1,94E-01
PENRE	[MJ]	1,05E+02	1,81E-01	5,94E-02	0,00E+00	3,11E+00	0,00E+00	0,00E+00	2,86E-02	1,87E+01	1,68E-02	-4,96E+00	1,86E+01	1,66E-01	-1,29E+00
PENRM	[MJ]	1,02E+01	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,21E+00	0,00E+00	0,00E+00	-9,21E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,15E+02	1,81E-01	1,65E-03	0,00E+00	3,11E+00	0,00E+00	0,00E+00	2,86E-02	2,85E-01	1,68E-02	-4,96E+00	1,76E-01	1,66E-01	-1,29E+00
SM	[kg]	4,78E-02	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	2,38E-02	1,73E-05	5,63E-06	0,00E+00	3,86E-02	0,00E+00	0,00E+00	2,75E-06	1,53E-03	4,44E-06	-1,13E-03	9,53E-05	3,85E-05	-1,76E-04
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 1 SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,13E-06	6,92E-12	3,31E-13	0,00E+00	3,92E-06	0,00E+00	0,00E+00	1,10E-12	3,13E-10	4,19E-12	-1,99E-09	2,48E-10	4,10E-11	5,25E-10
NHWD	[kg]	1,64E-01	2,95E-05	4,16E-05	0,00E+00	1,16E-02	0,00E+00	0,00E+00	4,67E-06	3,40E-03	8,41E-02	-4,79E-03	1,42E-04	3,83E-01	-2,86E-03
RWD	[kg]	3,65E-03	3,29E-07	1,93E-08	0,00E+00	3,61E-04	0,00E+00	0,00E+00	5,21E-08	3,36E-05	1,78E-07	-2,57E-04	2,74E-05	2,28E-06	1,85E-05
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	4,97E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,13E-01	0,00E+00	0,00E+00	1,13E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,26E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	3,15E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 1 SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 type 3 AiO-suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE AiO SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	8,78E+00	1,87E-02	2,30E-03	0,00E+00	2,16E-01	0,00E+00	0,00E+00	2,94E-03	7,03E-01	1,44E-03	-2,27E+00	1,56E-02	1,03E-02	-2,07E+00
GWP-fossil	[kg CO_2 eq.]	8,90E+00	1,83E-02	1,45E-03	0,00E+00	2,16E-01	0,00E+00	0,00E+00	2,89E-03	7,03E-01	1,44E-03	-2,27E+00	1,54E-02	1,03E-02	-2,06E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,28E-01	4,38E-05	1,30E-02	0,00E+00	5,32E-04	0,00E+00	0,00E+00	6,90E-06	1,60E-04	0,00E+00	-5,72E-03	1,36E-04	0,00E+00	-4,82E-03
GWP-luluc	[kg CO_2 eq.]	5,03E-03	3,09E-04	1,39E-06	0,00E+00	3,40E-05	0,00E+00	0,00E+00	4,86E-05	1,10E-05	8,57E-06	-3,92E-04	9,27E-06	4,11E-05	-3,74E-04
ODP	[kg CFC 11 eq.]	4,40E-07	2,71E-15	1,67E-16	0,00E+00	2,22E-12	0,00E+00	0,00E+00	4,26E-16	3,89E-13	3,89E-15	-1,54E-11	3,40E-13	3,30E-14	-1,36E-11
AP	[mol H^+ eq.]	2,39E-02	2,85E-05	7,32E-07	0,00E+00	5,22E-04	0,00E+00	0,00E+00	4,49E-06	9,62E-05	1,02E-05	-8,18E-03	2,96E-05	6,30E-05	-7,96E-03
EP-fresh-water	[kg P eq.]	5,99E-05	7,84E-08	4,19E-10	0,00E+00	7,10E-07	0,00E+00	0,00E+00	1,23E-08	7,46E-08	1,84E-08	-3,04E-06	6,40E-08	5,08E-06	-2,69E-06
EP-marine	[kg N eq.]	9,43E-03	1,09E-05	2,20E-07	0,00E+00	9,05E-05	0,00E+00	0,00E+00	1,71E-06	2,68E-05	2,61E-06	-1,92E-03	7,48E-06	1,40E-05	-1,85E-03
EP-terre-strial	[mol N eq.]	7,80E-02	1,28E-04	3,27E-06	0,00E+00	9,49E-04	0,00E+00	0,00E+00	2,02E-05	4,03E-04	2,88E-05	-2,09E-02	7,86E-05	1,54E-04	-2,01E-02
POCP	[kg NMVOC eq.]	2,07E-02	2,83E-05	5,79E-07	0,00E+00	2,68E-04	0,00E+00	0,00E+00	4,46E-06	7,39E-05	8,01E-06	-5,48E-03	1,98E-05	4,44E-05	-5,29E-03
ADPm[1]	[kg Sb eq.]	8,26E-06	1,60E-09	9,58E-12	0,00E+00	1,12E-08	0,00E+00	0,00E+00	2,52E-10	3,36E-09	9,32E-11	-2,01E-07	2,84E-09	6,79E-10	-1,83E-07
ADPf[1]	[MJ]	1,51E+02	2,42E-01	1,65E-03	0,00E+00	4,18E+00	0,00E+00	0,00E+00	3,81E-02	4,28E-01	1,91E-02	-2,82E+01	3,20E-01	1,68E-01	-2,45E+01
WDP[1]	[m^3 world eq. deprived]	3,87E-02	2,84E-04	2,35E-04	0,00E+00	2,21E+00	0,00E+00	0,00E+00	4,48E-05	6,54E-02	1,65E-04	-3,43E-01	4,15E-03	1,30E-03	-3,20E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE AiO SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	6,46E-07	3,10E-10	5,21E-12	0,00E+00	4,85E-09	0,00E+00	0,00E+00	4,89E-11	6,05E-10	1,27E-10	-1,53E-07	2,49E-10	6,74E-10	-1,52E-07
IRP[2]	[kBq U235 eq.]	1,03E+00	6,39E-05	1,89E-06	0,00E+00	7,46E-02	0,00E+00	0,00E+00	1,01E-05	9,28E-03	2,34E-05	-1,93E-01	8,29E-03	3,12E-04	-1,47E-01
ETP-fw[1]	[CTUe]	4,74E+01	1,80E-01	1,04E-03	0,00E+00	4,47E-01	0,00E+00	0,00E+00	2,83E-02	1,38E-01	1,34E-02	-7,98E+00	9,53E-02	3,36E-01	-7,46E+00
HTP-c[1]	[CTUh]	2,10E-08	3,63E-12	4,05E-14	0,00E+00	2,46E-11	0,00E+00	0,00E+00	5,71E-13	9,05E-12	2,68E-13	-1,54E-09	5,20E-12	5,06E-12	-1,50E-09
HTP-nc[1]	[CTUh]	9,66E-08	1,63E-10	1,80E-12	0,00E+00	1,04E-09	0,00E+00	0,00E+00	2,56E-11	1,22E-10	1,01E-11	-1,89E-08	8,22E-11	1,10E-10	-1,79E-08
SQP[1]	-	1,05E+02	1,19E-01	7,14E-04	0,00E+00	3,67E-01	0,00E+00	0,00E+00	1,87E-02	1,70E-01	5,20E-03	-5,29E+00	1,35E-01	3,05E-02	-4,56E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE AiO SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	1,08E+02	2,08E-02	1,42E+00	0,00E+00	5,52E-01	0,00E+00	0,00E+00	3,28E-03	2,59E-01	3,31E-03	-1,56E+01	2,28E-01	2,58E-02	-1,44E+01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	1,09E+02	2,08E-02	7,07E-01	0,00E+00	5,52E-01	0,00E+00	0,00E+00	3,28E-03	2,59E-01	3,31E-03	-1,56E+01	2,28E-01	2,58E-02	-1,44E+01
PENRE	[MJ]	1,51E+02	2,42E-01	5,94E-02	0,00E+00	4,18E+00	0,00E+00	0,00E+00	3,81E-02	1,94E+01	1,91E-02	-2,82E+01	1,93E+01	1,68E-01	-2,45E+01
PENRM	[MJ]	1,05E+01	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,51E+00	0,00E+00	0,00E+00	-9,51E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,62E+02	2,42E-01	1,65E-03	0,00E+00	4,18E+00	0,00E+00	0,00E+00	3,81E-02	4,28E-01	1,91E-02	-2,82E+01	3,20E-01	1,68E-01	-2,45E+01
SM	[kg]	6,18E-02	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	4,33E-02	2,32E-05	5,63E-06	0,00E+00	5,18E-02	0,00E+00	0,00E+00	3,65E-06	1,61E-03	5,04E-06	-1,08E-02	1,75E-04	3,91E-05	-9,80E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE AiO SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,16E-06	9,26E-12	3,31E-13	0,00E+00	5,26E-06	0,00E+00	0,00E+00	1,46E-12	5,20E-10	4,75E-12	-1,81E-08	4,55E-10	4,16E-11	-1,56E-08
NHWD	[kg]	7,31E-01	3,95E-05	4,16E-05	0,00E+00	1,55E-02	0,00E+00	0,00E+00	6,22E-06	3,51E-03	9,53E-02	-8,68E-01	2,60E-04	3,94E-01	-8,67E-01
RWD	[kg]	7,49E-03	4,41E-07	1,93E-08	0,00E+00	4,85E-04	0,00E+00	0,00E+00	6,94E-08	5,65E-05	2,01E-07	-1,73E-03	5,03E-05	2,30E-06	-1,45E-03
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	1,18E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,66E-01	0,00E+00	0,00E+00	2,66E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,26E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	3,15E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE AiO SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 type 8 Rapid 360 SS suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 RAPID 360 SS SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	9,85E+00	2,05E-02	6,90E-03	0,00E+00	2,38E-01	0,00E+00	0,00E+00	3,39E-03	7,06E-01	8,29E-04	-3,11E+00	1,96E-02	9,65E-03	-2,91E+00
GWP-fossil	[kg CO_2 eq.]	9,97E+00	2,02E-02	6,03E-03	0,00E+00	2,37E-01	0,00E+00	0,00E+00	3,33E-03	7,06E-01	8,30E-04	-3,11E+00	1,94E-02	9,64E-03	-2,90E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,23E-01	4,82E-05	1,30E-02	0,00E+00	5,84E-04	0,00E+00	0,00E+00	7,95E-06	1,97E-04	0,00E+00	-7,49E-03	1,73E-04	0,00E+00	-6,59E-03
GWP-luluc	[kg CO_2 eq.]	5,44E-03	3,39E-04	6,32E-06	0,00E+00	3,74E-05	0,00E+00	0,00E+00	5,60E-05	8,64E-06	4,95E-06	-5,86E-04	6,95E-06	3,74E-05	-5,67E-04
ODP	[kg CFC 11 eq.]	1,92E-07	2,97E-15	4,94E-16	0,00E+00	2,45E-12	0,00E+00	0,00E+00	4,91E-16	4,84E-13	2,25E-15	-2,09E-11	4,35E-13	3,13E-14	-1,91E-11
AP	[mol H^+ eq.]	2,80E-02	3,13E-05	6,81E-06	0,00E+00	5,73E-04	0,00E+00	0,00E+00	5,18E-06	1,04E-04	5,88E-06	-1,15E-02	3,74E-05	5,86E-05	-1,13E-02
EP-fresh-water	[kg P eq.]	4,96E-05	8,61E-08	1,81E-07	0,00E+00	7,81E-07	0,00E+00	0,00E+00	1,42E-08	9,12E-08	9,72E-09	-4,13E-06	8,06E-08	5,07E-06	-3,78E-06
EP-marine	[kg N eq.]	1,02E-02	1,20E-05	1,51E-06	0,00E+00	9,95E-05	0,00E+00	0,00E+00	1,97E-06	2,87E-05	1,51E-06	-2,67E-03	9,40E-06	1,29E-05	-2,60E-03
EP-terre-strial	[mol N eq.]	8,49E-02	1,41E-04	1,80E-05	0,00E+00	1,04E-03	0,00E+00	0,00E+00	2,32E-05	4,22E-04	1,66E-05	-2,90E-02	9,85E-05	1,41E-04	-2,83E-02
POCP	[kg NMVOC eq.]	2,22E-02	3,11E-05	5,00E-06	0,00E+00	2,95E-04	0,00E+00	0,00E+00	5,14E-06	7,89E-05	4,62E-06	-7,63E-03	2,48E-05	4,10E-05	-7,45E-03
ADPm[1]	[kg Sb eq.]	1,29E-05	1,76E-09	1,29E-09	0,00E+00	1,23E-08	0,00E+00	0,00E+00	2,90E-10	4,12E-09	5,38E-11	-9,66E-07	3,61E-09	6,39E-10	-9,48E-07
ADPf[1]	[MJ]	1,65E+02	2,66E-01	6,34E-02	0,00E+00	4,59E+00	0,00E+00	0,00E+00	4,39E-02	5,14E-01	1,10E-02	-3,82E+01	4,06E-01	1,60E-01	-3,46E+01
WDP[1]	[m^3 world eq. deprived]	3,88E-02	3,12E-04	1,85E-02	0,00E+00	2,42E+00	0,00E+00	0,00E+00	5,16E-05	6,65E-02	9,51E-05	-4,80E-01	5,31E-03	1,23E-03	-4,58E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 RAPID 360 SS SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	7,06E-07	3,41E-10	5,67E-11	0,00E+00	5,33E-09	0,00E+00	0,00E+00	5,63E-11	6,70E-10	7,35E-11	-2,16E-07	3,14E-10	6,20E-10	-2,14E-07
IRP[2]	[kBq U235 eq.]	1,31E+00	7,02E-05	4,01E-04	0,00E+00	8,20E-02	0,00E+00	0,00E+00	1,16E-05	1,16E-02	1,35E-05	-2,52E-01	1,06E-02	3,01E-04	-2,06E-01
ETP-fw[1]	[CTUe]	5,05E+01	1,97E-01	1,90E-02	0,00E+00	4,91E-01	0,00E+00	0,00E+00	3,26E-02	1,62E-01	7,66E-03	-1,11E+01	1,19E-01	3,30E-01	-1,06E+01
HTP-c[1]	[CTUh]	8,67E-08	3,98E-12	1,04E-12	0,00E+00	2,70E-11	0,00E+00	0,00E+00	6,58E-13	1,04E-11	1,54E-13	-2,17E-09	6,60E-12	4,94E-12	-2,12E-09
HTP-nc[1]	[CTUh]	1,01E-07	1,79E-10	1,62E-11	0,00E+00	1,15E-09	0,00E+00	0,00E+00	2,95E-11	1,42E-10	5,81E-12	-2,62E-08	1,03E-10	1,06E-10	-2,52E-08
SQP[1]	-	1,08E+02	1,31E-01	2,75E-03	0,00E+00	4,04E-01	0,00E+00	0,00E+00	2,16E-02	2,06E-01	3,00E-03	-7,15E+00	1,71E-01	2,83E-02	-6,43E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 RAPID 360 SS SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	1,18E+02	2,29E-02	1,43E+00	0,00E+00	6,06E-01	0,00E+00	0,00E+00	3,78E-03	3,22E-01	1,91E-03	-2,15E+01	2,91E-01	2,44E-02	-2,02E+01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	1,18E+02	2,29E-02	7,00E-01	0,00E+00	6,06E-01	0,00E+00	0,00E+00	3,78E-03	3,22E-01	1,91E-03	-2,15E+01	2,91E-01	2,44E-02	-2,02E+01
PENRE	[MJ]	1,65E+02	2,66E-01	1,21E-01	0,00E+00	4,59E+00	0,00E+00	0,00E+00	4,39E-02	1,86E+01	1,10E-02	-3,82E+01	1,85E+01	1,60E-01	-3,46E+01
PENRM	[MJ]	9,75E+00	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,05E+00	0,00E+00	0,00E+00	-9,05E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,75E+02	2,66E-01	6,34E-02	0,00E+00	4,59E+00	0,00E+00	0,00E+00	4,39E-02	5,14E-01	1,10E-02	-3,82E+01	4,06E-01	1,60E-01	-3,46E+01
SM	[kg]	1,06E-01	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	6,61E-02	2,55E-05	4,35E-04	0,00E+00	5,70E-02	0,00E+00	0,00E+00	4,21E-06	1,66E-03	2,90E-06	-1,49E-02	2,23E-04	3,69E-05	-1,40E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 RAPID 360 SS SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,12E-06	1,02E-11	7,27E-13	0,00E+00	5,79E-06	0,00E+00	0,00E+00	1,68E-12	6,47E-10	2,74E-12	-2,44E-08	5,82E-10	3,95E-11	-2,19E-08
NHWD	[kg]	9,74E-01	4,34E-05	8,07E-05	0,00E+00	1,70E-02	0,00E+00	0,00E+00	7,16E-06	3,58E-03	5,50E-02	-1,22E+00	3,32E-04	3,54E-01	-1,21E+00
RWD	[kg]	8,99E-03	4,84E-07	3,94E-08	0,00E+00	5,33E-04	0,00E+00	0,00E+00	7,99E-08	7,06E-05	1,16E-07	-2,31E-03	6,43E-05	2,22E-06	-2,03E-03
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	1,80E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,07E-01	0,00E+00	0,00E+00	4,07E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,25E-01	0,00E+00	1,63E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,85E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	3,15E-01	0,00E+00	1,80E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
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BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 8 RAPID 360 SS SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 Nozzflow type 5 HDG suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH NOZZFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	7,01E+00	1,63E-02	2,30E-03	0,00E+00	1,89E-01	0,00E+00	0,00E+00	2,65E-03	7,00E-01	5,16E-04	-1,27E+00	1,26E-02	9,35E-03	-1,07E+00
GWP-fossil	[kg CO_2 eq.]	7,14E+00	1,60E-02	1,45E-03	0,00E+00	1,89E-01	0,00E+00	0,00E+00	2,60E-03	7,00E-01	5,16E-04	-1,27E+00	1,24E-02	9,34E-03	-1,07E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,38E-01	3,83E-05	1,30E-02	0,00E+00	4,64E-04	0,00E+00	0,00E+00	6,22E-06	1,35E-04	0,00E+00	-2,49E-03	1,11E-04	0,00E+00	-1,59E-03
GWP-luluc	[kg CO_2 eq.]	4,87E-03	2,70E-04	1,39E-06	0,00E+00	2,97E-05	0,00E+00	0,00E+00	4,38E-05	6,07E-06	3,08E-06	-2,85E-04	4,38E-06	3,56E-05	-2,67E-04
ODP	[kg CFC 11 eq.]	1,38E-07	2,37E-15	1,67E-16	0,00E+00	1,94E-12	0,00E+00	0,00E+00	3,84E-16	3,28E-13	1,40E-15	-6,72E-12	2,79E-13	3,05E-14	-4,86E-12
AP	[mol H^+ eq.]	1,89E-02	2,49E-05	7,32E-07	0,00E+00	4,56E-04	0,00E+00	0,00E+00	4,05E-06	9,06E-05	3,66E-06	-4,00E-03	2,40E-05	5,65E-05	-3,78E-03
EP-fresh-water	[kg P eq.]	3,41E-05	6,86E-08	4,19E-10	0,00E+00	6,20E-07	0,00E+00	0,00E+00	1,11E-08	6,23E-08	6,03E-09	-1,47E-06	5,16E-08	5,07E-06	-1,12E-06
EP-marine	[kg N eq.]	8,29E-03	9,52E-06	2,20E-07	0,00E+00	7,90E-05	0,00E+00	0,00E+00	1,55E-06	2,53E-05	9,40E-07	-9,48E-04	6,02E-06	1,23E-05	-8,82E-04
EP-terre-strial	[mol N eq.]	6,86E-02	1,12E-04	3,27E-06	0,00E+00	8,29E-04	0,00E+00	0,00E+00	1,82E-05	3,87E-04	1,03E-05	-1,03E-02	6,31E-05	1,35E-04	-9,59E-03
POCP	[kg NMVOC eq.]	1,79E-02	2,48E-05	5,79E-07	0,00E+00	2,34E-04	0,00E+00	0,00E+00	4,02E-06	7,01E-05	2,88E-06	-2,77E-03	1,59E-05	3,93E-05	-2,58E-03
ADPm[1]	[kg Sb eq.]	1,81E-05	1,40E-09	9,58E-12	0,00E+00	9,77E-09	0,00E+00	0,00E+00	2,27E-10	2,83E-09	3,35E-11	-1,81E-07	2,31E-09	6,20E-10	-1,63E-07
ADPf[1]	[MJ]	1,20E+02	2,12E-01	1,65E-03	0,00E+00	3,65E+00	0,00E+00	0,00E+00	3,43E-02	3,68E-01	6,84E-03	-1,54E+01	2,60E-01	1,56E-01	-1,17E+01
WDP[1]	[m^3 world eq. deprived]	3,81E-02	2,49E-04	2,35E-04	0,00E+00	1,93E+00	0,00E+00	0,00E+00	4,04E-05	6,47E-02	5,92E-05	-1,57E-01	3,40E-03	1,20E-03	-1,34E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
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Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH NOZZFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	5,83E-07	2,71E-10	5,21E-12	0,00E+00	4,23E-09	0,00E+00	0,00E+00	4,41E-11	5,57E-10	4,58E-11	-7,15E-08	2,01E-10	5,93E-10	-6,97E-08
IRP[2]	[kBq U235 eq.]	6,25E-01	5,59E-05	1,89E-06	0,00E+00	6,51E-02	0,00E+00	0,00E+00	9,07E-06	7,79E-03	8,40E-06	-1,03E-01	6,79E-03	2,97E-04	-5,72E-02
ETP-fw[1]	[CTUe]	3,64E+01	1,57E-01	1,04E-03	0,00E+00	3,90E-01	0,00E+00	0,00E+00	2,55E-02	1,19E-01	4,77E-03	-3,85E+00	7,62E-02	3,28E-01	-3,32E+00
HTP-c[1]	[CTUh]	2,91E-08	3,17E-12	4,05E-14	0,00E+00	2,15E-11	0,00E+00	0,00E+00	5,15E-13	8,08E-12	9,58E-14	-1,00E-09	4,23E-12	4,89E-12	-9,62E-10
HTP-nc[1]	[CTUh]	8,58E-08	1,42E-10	1,80E-12	0,00E+00	9,12E-10	0,00E+00	0,00E+00	2,31E-11	1,05E-10	3,62E-12	-8,03E-09	6,57E-11	1,04E-10	-7,04E-09
SQP[1]	-	9,99E+01	1,04E-01	7,14E-04	0,00E+00	3,21E-01	0,00E+00	0,00E+00	1,69E-02	1,45E-01	1,87E-03	-2,44E+00	1,10E-01	2,72E-02	-1,71E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH NOZZFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	9,48E+01	1,82E-02	1,42E+00	0,00E+00	4,82E-01	0,00E+00	0,00E+00	2,96E-03	2,18E-01	1,19E-03	-6,84E+00	1,87E-01	2,37E-02	-5,60E+00
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	9,55E+01	1,82E-02	7,07E-01	0,00E+00	4,82E-01	0,00E+00	0,00E+00	2,96E-03	2,18E-01	1,19E-03	-6,84E+00	1,87E-01	2,37E-02	-5,60E+00
PENRE	[MJ]	1,20E+02	2,12E-01	5,94E-02	0,00E+00	3,65E+00	0,00E+00	0,00E+00	3,43E-02	1,83E+01	6,84E-03	-1,54E+01	1,82E+01	1,56E-01	-1,17E+01
PENRM	[MJ]	9,30E+00	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,96E+00	0,00E+00	0,00E+00	-8,96E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,29E+02	2,12E-01	1,65E-03	0,00E+00	3,65E+00	0,00E+00	0,00E+00	3,43E-02	3,68E-01	6,84E-03	-1,54E+01	2,60E-01	1,56E-01	-1,17E+01
SM	[kg]	6,93E-02	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	2,90E-02	2,03E-05	5,63E-06	0,00E+00	4,53E-02	0,00E+00	0,00E+00	3,30E-06	1,58E-03	1,81E-06	-5,14E-03	1,43E-04	3,59E-05	-4,19E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH NOZZFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,22E-06	8,10E-12	3,31E-13	0,00E+00	4,60E-06	0,00E+00	0,00E+00	1,32E-12	4,38E-10	1,70E-12	-8,14E-09	3,73E-10	3,86E-11	-5,62E-09
NHWD	[kg]	4,11E-01	3,45E-05	4,16E-05	0,00E+00	1,35E-02	0,00E+00	0,00E+00	5,61E-06	3,47E-03	3,43E-02	-3,59E-01	2,13E-04	3,33E-01	-3,58E-01
RWD	[kg]	5,20E-03	3,85E-07	1,93E-08	0,00E+00	4,23E-04	0,00E+00	0,00E+00	6,26E-08	4,75E-05	7,22E-08	-8,42E-04	4,12E-05	2,18E-06	-5,67E-04
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	2,32E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,62E-01	0,00E+00	0,00E+00	2,62E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,23E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,87E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	2,86E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH NOZZFLOW TYPE 5 HDG SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 Jetflow type 5 HDG suspension system**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH JETFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	7,68E+00	1,55E-02	2,30E-03	0,00E+00	1,79E-01	0,00E+00	0,00E+00	2,51E-03	7,00E-01	5,80E-04	-1,71E+00	1,12E-02	9,42E-03	-1,50E+00
GWP-fossil	[kg CO_2 eq.]	7,81E+00	1,52E-02	1,45E-03	0,00E+00	1,78E-01	0,00E+00	0,00E+00	2,46E-03	7,00E-01	5,80E-04	-1,70E+00	1,11E-02	9,42E-03	-1,50E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,33E-01	3,63E-05	1,30E-02	0,00E+00	4,39E-04	0,00E+00	0,00E+00	5,88E-06	1,22E-04	0,00E+00	-4,22E-03	9,85E-05	0,00E+00	-3,32E-03
GWP-luluc	[kg CO_2 eq.]	4,62E-03	2,55E-04	1,39E-06	0,00E+00	2,81E-05	0,00E+00	0,00E+00	4,14E-05	6,17E-06	3,46E-06	-3,28E-04	4,48E-06	3,60E-05	-3,09E-04
ODP	[kg CFC 11 eq.]	1,38E-07	2,24E-15	1,67E-16	0,00E+00	1,84E-12	0,00E+00	0,00E+00	3,63E-16	2,97E-13	1,57E-15	-1,17E-11	2,47E-13	3,07E-14	-9,81E-12
AP	[mol H^+ eq.]	2,17E-02	2,36E-05	7,32E-07	0,00E+00	4,31E-04	0,00E+00	0,00E+00	3,83E-06	8,81E-05	4,11E-06	-6,05E-03	2,13E-05	5,70E-05	-5,84E-03
EP-fresh-water	[kg P eq.]	3,54E-05	6,49E-08	4,19E-10	0,00E+00	5,86E-07	0,00E+00	0,00E+00	1,05E-08	5,66E-08	7,01E-09	-2,30E-06	4,60E-08	5,08E-06	-1,95E-06
EP-marine	[kg N eq.]	8,85E-03	9,01E-06	2,20E-07	0,00E+00	7,47E-05	0,00E+00	0,00E+00	1,46E-06	2,47E-05	1,06E-06	-1,41E-03	5,36E-06	1,24E-05	-1,34E-03
EP-terre-strial	[mol N eq.]	7,32E-02	1,06E-04	3,27E-06	0,00E+00	7,83E-04	0,00E+00	0,00E+00	1,72E-05	3,81E-04	1,16E-05	-1,53E-02	5,63E-05	1,37E-04	-1,46E-02
POCP	[kg NMVOC eq.]	1,91E-02	2,34E-05	5,79E-07	0,00E+00	2,21E-04	0,00E+00	0,00E+00	3,80E-06	6,84E-05	3,23E-06	-4,03E-03	1,42E-05	3,97E-05	-3,84E-03
ADPm[1]	[kg Sb eq.]	1,18E-05	1,32E-09	9,58E-12	0,00E+00	9,24E-09	0,00E+00	0,00E+00	2,15E-10	2,57E-09	3,76E-11	-7,66E-07	2,06E-09	6,25E-10	-7,47E-07
ADPf[1]	[MJ]	1,32E+02	2,00E-01	1,65E-03	0,00E+00	3,45E+00	0,00E+00	0,00E+00	3,24E-02	3,40E-01	7,69E-03	-2,15E+01	2,31E-01	1,57E-01	-1,79E+01
WDP[1]	[m^3 world eq. deprived]	3,77E-02	2,35E-04	2,35E-04	0,00E+00	1,82E+00	0,00E+00	0,00E+00	3,81E-05	6,44E-02	6,65E-05	-2,61E-01	3,02E-03	1,21E-03	-2,38E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH JETFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	6,21E-07	2,57E-10	5,21E-12	0,00E+00	4,00E-09	0,00E+00	0,00E+00	4,16E-11	5,36E-10	5,14E-11	-1,13E-07	1,79E-10	5,99E-10	-1,11E-07
IRP[2]	[kBq U235 eq.]	8,39E-01	5,29E-05	1,89E-06	0,00E+00	6,16E-02	0,00E+00	0,00E+00	8,57E-06	7,02E-03	9,44E-06	-1,51E-01	6,03E-03	2,98E-04	-1,06E-01
ETP-fw[1]	[CTUe]	4,08E+01	1,49E-01	1,04E-03	0,00E+00	3,69E-01	0,00E+00	0,00E+00	2,41E-02	1,11E-01	5,37E-03	-6,02E+00	6,80E-02	3,29E-01	-5,49E+00
HTP-c[1]	[CTUh]	7,92E-08	3,00E-12	4,05E-14	0,00E+00	2,03E-11	0,00E+00	0,00E+00	4,86E-13	7,62E-12	1,08E-13	-1,15E-09	3,76E-12	4,90E-12	-1,11E-09
HTP-nc[1]	[CTUh]	8,95E-08	1,35E-10	1,80E-12	0,00E+00	8,62E-10	0,00E+00	0,00E+00	2,18E-11	9,83E-11	4,07E-12	-1,40E-08	5,86E-11	1,04E-10	-1,30E-08
SQP[1]	-	1,02E+02	9,84E-02	7,14E-04	0,00E+00	3,03E-01	0,00E+00	0,00E+00	1,60E-02	1,33E-01	2,10E-03	-4,04E+00	9,75E-02	2,75E-02	-3,31E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH JETFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	1,02E+02	1,72E-02	1,42E+00	0,00E+00	4,56E-01	0,00E+00	0,00E+00	2,79E-03	1,97E-01	1,34E-03	-1,16E+01	1,66E-01	2,39E-02	-1,04E+01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	1,02E+02	1,72E-02	7,07E-01	0,00E+00	4,56E-01	0,00E+00	0,00E+00	2,79E-03	1,97E-01	1,34E-03	-1,16E+01	1,66E-01	2,39E-02	-1,04E+01
PENRE	[MJ]	1,32E+02	2,00E-01	5,94E-02	0,00E+00	3,45E+00	0,00E+00	0,00E+00	3,24E-02	1,83E+01	7,69E-03	-2,15E+01	1,82E+01	1,57E-01	-1,79E+01
PENRM	[MJ]	9,29E+00	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,98E+00	0,00E+00	0,00E+00	-8,98E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,42E+02	2,00E-01	1,65E-03	0,00E+00	3,45E+00	0,00E+00	0,00E+00	3,24E-02	3,40E-01	7,69E-03	-2,15E+01	2,31E-01	1,57E-01	-1,79E+01
SM	[kg]	8,25E-02	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	3,59E-02	1,92E-05	5,63E-06	0,00E+00	4,28E-02	0,00E+00	0,00E+00	3,11E-06	1,57E-03	2,03E-06	-8,24E-03	1,27E-04	3,62E-05	-7,28E-03
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH JETFLOW TYPE 5 HDG SUSPENSION															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,11E-06	7,66E-12	3,31E-13	0,00E+00	4,35E-06	0,00E+00	0,00E+00	1,24E-12	3,96E-10	1,91E-12	-1,38E-08	3,31E-10	3,88E-11	-1,12E-08
NHWD	[kg]	5,83E-01	3,27E-05	4,16E-05	0,00E+00	1,28E-02	0,00E+00	0,00E+00	5,30E-06	3,45E-03	3,85E-02	-6,26E-01	1,89E-04	3,38E-01	-6,24E-01
RWD	[kg]	6,40E-03	3,64E-07	1,93E-08	0,00E+00	4,00E-04	0,00E+00	0,00E+00	5,91E-08	4,28E-05	8,12E-08	-1,32E-03	3,66E-05	2,19E-06	-1,04E-03
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	1,98E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	2,24E-01	0,00E+00	0,00E+00	2,24E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,23E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,88E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	2,85E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^{2}$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH JETFLOW TYPE 5 HDG SUSPENSION		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

This is the LCA results for the **Combi 90 type 11a suspension system. D-canal half round**.

ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 11A SUSPENSION (D-CANAL HALF ROUND)															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
GWP-total	[kg CO_2 eq.]	1,17E+01	2,39E-02	2,30E-03	0,00E+00	2,77E-01	0,00E+00	0,00E+00	3,93E-03	7,11E-01	4,41E-04	-4,39E+00	2,45E-02	9,26E-03	-4,18E+00
GWP-fossil	[kg CO_2 eq.]	1,18E+01	2,34E-02	1,45E-03	0,00E+00	2,76E-01	0,00E+00	0,00E+00	3,85E-03	7,11E-01	4,42E-04	-4,38E+00	2,43E-02	9,25E-03	-4,17E+00
GWP-bio-genic	[kg CO_2 eq.]	-1,14E-01	5,59E-05	1,30E-02	0,00E+00	6,79E-04	0,00E+00	0,00E+00	9,20E-06	2,42E-04	0,00E+00	-1,06E-02	2,18E-04	0,00E+00	-9,69E-03
GWP-luluc	[kg CO_2 eq.]	5,76E-03	3,94E-04	1,39E-06	0,00E+00	4,35E-05	0,00E+00	0,00E+00	6,48E-05	7,51E-06	2,64E-06	-7,96E-04	5,82E-06	3,51E-05	-7,77E-04
ODP	[kg CFC 11 eq.]	3,87E-08	3,45E-15	1,67E-16	0,00E+00	2,84E-12	0,00E+00	0,00E+00	5,68E-16	5,97E-13	1,19E-15	-2,94E-11	5,48E-13	3,03E-14	-2,76E-11
AP	[mol H^+ eq.]	3,29E-02	3,64E-05	7,32E-07	0,00E+00	6,66E-04	0,00E+00	0,00E+00	5,99E-06	1,13E-04	3,13E-06	-1,64E-02	4,69E-05	5,59E-05	-1,62E-02
EP-fresh-water	[kg P eq.]	3,68E-05	1,00E-07	4,19E-10	0,00E+00	9,07E-07	0,00E+00	0,00E+00	1,65E-08	1,11E-07	4,04E-09	-5,80E-06	1,01E-07	5,06E-06	-5,46E-06
EP-marine	[kg N eq.]	1,13E-02	1,39E-05	2,20E-07	0,00E+00	1,16E-04	0,00E+00	0,00E+00	2,29E-06	3,10E-05	8,04E-07	-3,82E-03	1,17E-05	1,22E-05	-3,75E-03
EP-terre-strial	[mol N eq.]	9,41E-02	1,63E-04	3,27E-06	0,00E+00	1,21E-03	0,00E+00	0,00E+00	2,69E-05	4,47E-04	8,86E-06	-4,15E-02	1,23E-04	1,34E-04	-4,08E-02
POCP	[kg NMVOC eq.]	2,47E-02	3,61E-05	5,79E-07	0,00E+00	3,43E-04	0,00E+00	0,00E+00	5,95E-06	8,51E-05	2,46E-06	-1,09E-02	3,10E-05	3,88E-05	-1,07E-02
ADPm[1]	[kg Sb eq.]	1,12E-05	2,04E-09	9,58E-12	0,00E+00	1,43E-08	0,00E+00	0,00E+00	3,36E-10	5,05E-09	2,86E-11	-7,80E-07	4,53E-09	6,14E-10	-7,62E-07
ADPf[1]	[MJ]	1,92E+02	3,09E-01	1,65E-03	0,00E+00	5,33E+00	0,00E+00	0,00E+00	5,08E-02	6,17E-01	5,84E-03	-5,34E+01	5,09E-01	1,55E-01	-4,97E+01
WDP[1]	[m^3 world eq. deprived]	3,92E-02	3,63E-04	2,35E-04	0,00E+00	2,82E+00	0,00E+00	0,00E+00	5,97E-05	6,79E-02	5,06E-05	-6,77E-01	6,68E-03	1,19E-03	-6,54E-01
Caption	GWP-total = Globale Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-biogenic = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidifcation; EP-freshwater = Eutrophication – aquatic freshwater; EP-marine = Eutrophication – aquatic marine; EP-terrestrial = Eutrophication – terrestrial; POCP = Photochemical zone formation; ADPm = Abiotic Depletion Potential – minerals and metals; ADPf = Abiotic Depletion Potential – fossil fuels; WDP = water depletion potential														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimer	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														

ADDITIONAL ENVIRONMENTAL IMPACTS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 11A SUSPENSION (D-CANAL HALF ROUND)															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PM	[Disease inci-dence]	7,72E-07	3,96E-10	5,21E-12	0,00E+00	6,19E-09	0,00E+00	0,00E+00	6,52E-11	7,48E-10	3,92E-11	-3,10E-07	3,93E-10	5,85E-10	-3,08E-07
IRP[2]	[kBq U235 eq.]	1,72E+00	8,15E-05	1,89E-06	0,00E+00	9,53E-02	0,00E+00	0,00E+00	1,34E-05	1,43E-02	7,15E-06	-3,44E-01	1,34E-02	2,95E-04	-2,98E-01
ETP-fw[1]	[CTUe]	5,90E+01	2,29E-01	1,04E-03	0,00E+00	5,71E-01	0,00E+00	0,00E+00	3,77E-02	1,91E-01	4,02E-03	-1,57E+01	1,48E-01	3,27E-01	-1,52E+01
HTP-c[1]	[CTUh]	5,87E-08	4,62E-12	4,05E-14	0,00E+00	3,14E-11	0,00E+00	0,00E+00	7,61E-13	1,21E-11	8,12E-14	-3,07E-09	8,28E-12	4,86E-12	-3,03E-09
HTP-nc[1]	[CTUh]	1,12E-07	2,08E-10	1,80E-12	0,00E+00	1,33E-09	0,00E+00	0,00E+00	3,42E-11	1,67E-10	3,09E-12	-3,74E-08	1,28E-10	1,03E-10	-3,64E-08
SQP[1]	-	1,14E+02	1,52E-01	7,14E-04	0,00E+00	4,69E-01	0,00E+00	0,00E+00	2,50E-02	2,49E-01	1,60E-03	-9,99E+00	2,14E-01	2,69E-02	-9,26E+00
Caption	PM = Particulate Matter emissions; IRP = Ionizing radiation – human health; ETP-fw = Eco toxicity – freshwater; HTP-c = Human toxicity – cancer effects; HTP-nc = Human toxicity – non cancer effects; SQP = Soil Quality (dimensionless)														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														
Disclaimers	[1] The results of this environmental indicator shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.														
	[2] This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.														

RESOURCE USE PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 11A SUSPENSION (D-CANAL HALF ROUND)															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
PERE	[MJ]	1,31E+02	2,66E-02	1,42E+00	0,00E+00	7,05E-01	0,00E+00	0,00E+00	4,37E-03	3,98E-01	1,02E-03	-3,04E+01	3,67E-01	2,35E-02	-2,92E+01
PERM	[MJ]	7,13E-01	0,00E+00	-7,13E-01	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
PERT	[MJ]	1,32E+02	2,66E-02	7,07E-01	0,00E+00	7,05E-01	0,00E+00	0,00E+00	4,37E-03	3,98E-01	1,02E-03	-3,04E+01	3,67E-01	2,35E-02	-2,92E+01
PENRE	[MJ]	1,92E+02	3,09E-01	5,94E-02	0,00E+00	5,33E+00	0,00E+00	0,00E+00	5,08E-02	1,82E+01	5,84E-03	-5,34E+01	1,80E+01	1,55E-01	-4,97E+01
PENRM	[MJ]	8,99E+00	0,00E+00	-2,77E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,77E+00	0,00E+00	0,00E+00	-8,77E+00	0,00E+00	0,00E+00
PENRT	[MJ]	2,01E+02	3,09E-01	1,65E-03	0,00E+00	5,33E+00	0,00E+00	0,00E+00	5,08E-02	6,17E-01	5,84E-03	-5,34E+01	5,09E-01	1,55E-01	-4,97E+01
SM	[kg]	1,12E-01	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	0,00E+00
RSF	[MJ]	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	0,00E+00	0,00E+00
NRSF	[MJ]	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	0,00E+00	0,00E+00
FW	[m^3]	6,76E-02	2,96E-05	5,63E-06	0,00E+00	6,62E-02	0,00E+00	0,00E+00	4,87E-06	1,72E-03	1,55E-06	-2,09E-02	2,81E-04	3,56E-05	-2,00E-02
Caption	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources used as raw materials; PERT = Total use of renewable primary energy resources; PENRE = Use of non renewable primary energy excluding non renewable primary energy resources used as raw materials; PENRM = Use of non renewable primary energy resources used as raw materials; PENRT = Total use of non renewable primary energy resources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non renewable secondary fuels; FW = Net use of fresh water														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

WASTE CATEGORIES AND OUTPUT FLOWS PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 11A SUSPENSION (D-CANAL HALF ROUND)															
Parameter	**Unit**	**A1-A3**	**A4**	**A5**	**B1**	**B2**	**B3-B7**	**C1**	**C2**	**C3**	**C4**	**D**	**C3***	**C4***	**D***
HWD	[kg]	3,15E-06	1,18E-11	3,31E-13	0,00E+00	6,72E-06	0,00E+00	0,00E+00	1,94E-12	7,98E-10	1,45E-12	-3,41E-08	7,33E-10	3,83E-11	-3,16E-08
NHWD	[kg]	1,33E+00	5,04E-05	4,16E-05	0,00E+00	1,98E-02	0,00E+00	0,00E+00	8,29E-06	3,67E-03	2,94E-02	-1,76E+00	4,18E-04	3,28E-01	-1,76E+00
RWD	[kg]	1,14E-02	5,62E-07	1,93E-08	0,00E+00	6,19E-04	0,00E+00	0,00E+00	9,25E-08	8,73E-05	6,16E-08	-3,22E-03	8,11E-05	2,16E-06	-2,94E-03
CRU	[kg]	2,72E-02	0,00E+00	1,29E-02	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
MFR	[kg]	1,99E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,53E-01	0,00E+00	0,00E+00	5,53E-01	0,00E+00	0,00E+00
MER	[kg]	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	0,00E+00	0,00E+00
EEE	[MJ]	1,27E-01	0,00E+00	8,43E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,86E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	3,28E-01	0,00E+00	9,61E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,77E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
Caption	HWD = Hazardous waste disposed; NHWD = Non hazardous waste disposed; RWD = Radioactive waste disposed; CRU = Components for re-use; MFR = Materials for recycling; MER = Materials for energy recovery; EEE = Exported electrical energy; EET = Exported thermal energy														
	The numbers are declared in scientific notation, fx 1,95E+02. This number can also be written as: $1,95*10^2$ or 195, while 1,12E-11 is the same as $1,12*10^{-11}$ or 0,0000000000112.														

BIOGENIC CARBON CONTENT PER DECLARED UNIT OF 1M2 FABRIC WITH TYPE 11A SUSPENSION (D-CANAL HALF ROUND)		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	[kg C]	0,00E+00
Biogenic carbon content in accompanying packaging	[kg C]	1,34E-02
Note	1 kg biogenic carbon is equivalent to 44/12 kg of CO_2	

Additional information

LCA interpretation

The results show that the production of fabric, steel, and aluminum (A1) are the dominating process in most of the environmental impact categories and to some extend the corresponding avoided production of materials beyond the system boundary (D). This stems especially from the metal content that is costly to produce but which, even combined with the other sealant materials, can be recycled at the end-of-life. The fabric and the metal parts are also the largest part of the overall material composition. The fabric has the overall largest volume for the products.

For the biogenic global warming potential impact category, the impact from A1 and A3 is related to the production and waste handling of the biogenic content in cardboard and wooden pallets for packaging of the products.

Technical information on scenarios

Transport to the building site (A4)

Scenario information	Value	Unit
Fuel type	Diesel	-
Vehicle type	Truck, Euro 6, 26 - 28t gross weight / 18.4t payload capacity	-
Transport distance	300	km
Capacity utilisation (including empty runs)	55	%
Gross density of products transported	2.4 - 6.1	kg/m^3

Installation of the product in the building (A5)

Scenario information	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Ancillary materials: Plastic	0	0	0	0.0008	0	0	0	kg
Water use	0	0	0	0	0	0	0	m^3
Other resource use	0	0	0	0	0	0	0	kg
Energy type and consumption	0	0	0	0	0	0	0	kWh
Waste materials: Cardboard	0.017	0.017	0.017	0.017	0.017	0.017	0.017	kg
Waste material: Plastic	0.0006	0.0006	0.0006	0.0013	0.0006	0.0006	0.0006	kg
Waste material: Pallet	0.013	0.013	0.013	0.013	0.013	0.013	0.013	kg
Output materials	0	0	0	0	0	0	0	kg
Direct emissions to air, soil or water	0	0	0	0	0	0	0	kg

Reference service life

RSL information		Unit
Reference service Life	30	Years
Declared product properties	Technical specifications and guidance can be obtained from direct contact to FabricAir A/S at +45 5665 2110 or sales-dk@fabricair.com	
Design application parameters		
Assumed quality of work		
Outdoor environment		
Indoor environment		
Usage conditions		
Maintenance		

Use (B1-B7)

Scenario information	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
B1 – Use								
B2 - Maintenance								
Maintenance process	Washing	Washing	Washing	Washing	Washing	Washing	Washing	-
Maintenance cycle	1	1	1	1	1	1	1	/10 years
Ancillary materials for maintenance (soap)	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	kg/cycle
Waste materials resulting from maintenance	0	0	0	0	0	0	0	kg
Net freshwater consumption during maintenance	0.011	0.011	0.011	0.011	0.011	0.011	0.011	m^3
Energy input during maintenance	0.086	0.086	0.086	0.086	0.086	0.086	0.086	kWh
B3 – Repair								
Repair process	None required	None required	None required	None required	None required	None required	None required	-
Inspection process	None required	None required	None required	None required	None required	None required	None required	-
Repair cycle	0	0	0	0	0	0	0	/year
Ancillary materials (specify which)	0	0	0	0	0	0	0	kg/cycle
Waste materials (specify which)	0	0	0	0	0	0	0	kg
Net freshwater consumption during repair	0	0	0	0	0	0	0	m^3
Energy input during repair	0	0	0	0	0	0	0	kg/cycle
B4 – Replacement								
Replacement cycle	0	0	0	0	0	0	0	/year
Energy input during replacement	0	0	0	0	0	0	0	kWh
Exchange of worn parts during products life cycle	0	0	0	0	0	0	0	kg
B5 - Refurbishment								
Refurbishment process	None required	None required	None required	None required	None required	None required	None required	
Refurbishment cycle	0	0	0	0	0	0	0	/year
Energy input during refurbishment	0	0	0	0	0	0	0	kWh
Material input for refurbishment (specify which)	0	0	0	0	0	0	0	kg/cycle
Waste materials resulting from refurbishment	0	0	0	0	0	0	0	kg
Further assumptions for scenario development	-	-	-	-	-	-	-	As appropriate
B6 + B7 – Use of energy and water								
Ancillary materials specified by material	0	0	0	0	0	0	0	kg
Net freshwater consumption	0	0	0	0	0	0	0	m^3
Type of energy carrier	0	0	0	0	0	0	0	kWh
Power output of equipment	0	0	0	0	0	0	0	kW
Characteristic performance	-	-	-	-	-	-	-	As appropriate
Further assumptions for scenario development	-	-	-	-	-	-	-	As appropriate

End of life (C1-C4) for incineration scenario

Scenario information	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Collected separately	0.689	0.518	0.695	0.764	0.607	0.574	0.888	kg
Collected with mixed waste	0.000	0.000	0.000	0.000	0.000	0.000	0.000	kg
For reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	kg
For recycling	0.315	0.115	0.272	0.416	0.268	0.229	0.564	kg
For energy recovery	0.300	0.300	0.300	0.300	0.300	0.301	0.300	kg

For final disposal	0.073	0.103	0.124	0.049	0.039	0.044	0.024	kg
Assumptions for scenario development	The fabric and suspension system is separated. The fabric is sent for incineration while the suspension system is sent to a metal recycling facility where it is shredded and the fluff is landfilled.							

End of life (C1-C4) for landfill scenario

Scenario information	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Collected separately	0.689	0.518	0.695	0.764	0.607	0.574	0.888	kg
Collected with mixed waste	0.000	0.000	0.000	0.000	0.000	0.000	0.000	kg
For reuse	0.000	0.000	0.000	0.000	0.000	0.000	0.000	kg
For recycling	0.315	0.115	0.272	0.416	0.268	0.229	0.564	kg
For energy recovery	0.000	0.000	0.000	0.000	0.000	0.000	0.000	kg
For final disposal	0.373	0.403	0.424	0.349	0.339	0.345	0.324	kg
Assumptions for scenario development	The fabric and suspension system is separated. The fabric is sent to a local landfill while the suspension system is sent to a metal recycling facility where it is shredded and the fluff is landfilled.							

Re-use, recovery and recycling potential (D) for incineration scenario

Scenario information/ Materiel	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Steel	0.055	0.105	0.005	0.000	0.153	0.000	0.000	kg
Stainless steel	0.000	0.010	0.000	0.042	0.005	0.037	0.024	kg
Aluminium	0.260	0.000	0.267	0.374	0.109	0.192	0.541	kg
Electricity recovery from waste incineration	0.988	0.987	0.987	0.987	0.988	0.989	0.987	MJ
Heat recovery from waste incineration	1.780	1.780	1.780	1.788	1.780	1.780	1.780	MJ

Re-use, recovery and recycling potential (D) for landfill scenario

Scenario information/ Materiel	Type 8 suspension	Type 1 suspension	Type 3-AiO suspension	Type 8-Rapid-360 SS suspension	NozzFlow Type 5-HDG suspension	JetFlow Type 5-HDG suspension	Type 11a suspension. D-canal half round	Unit
Steel	0.055	0.105	0.005	0.000	0.153	0.000	0.000	kg
Stainless steel	0.000	0.010	0.000	0.042	0.005	0.037	0.024	kg
Aluminium	0.260	0.000	0.267	0.374	0.109	0.192	0.541	kg
Electricity recovery from waste incineration	0.001	0.001	0.001	0.002	0.001	0.001	0.001	MJ
Heat recovery from waste incineration	0.010	0.010	0.010	0.018	0.010	0.010	0.010	MJ

Indoor air

The EPD does not give information on release of dangerous substances to indoor air because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.1.

Soil and water

The EPD does not give information on release of dangerous substances to soil and water because the horizontal standards on the relevant measurements are not available. Read more in EN15804+A1 chapter 7.4.2.

References

Publisher	epddanmark www.epddanmark.dk Template version 2024.1
Programme operator	Danish Technological Institute Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA-practitioner	Maria Preilev Hansen Danish Technological Institute Buildings & Environment Gregersensvej DK-2630 Taastrup www.teknologisk.dk
LCA software /background data	Sphera LCA for experts version 10.8.0.14, 2023 including MLC database professional core v.2023.2 https://sphera.com/ Ecoinvent v3.10 Life-Cycle Assessment data-base *https://ecoinvent.org/database-login/*
3rd party verifier	David Althoff Palm Dalemarken AB david@dalemarken.dk

General programme instructions
General Programme Instructions, version 2.0, spring 2020
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EN 15804
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