epddanmark

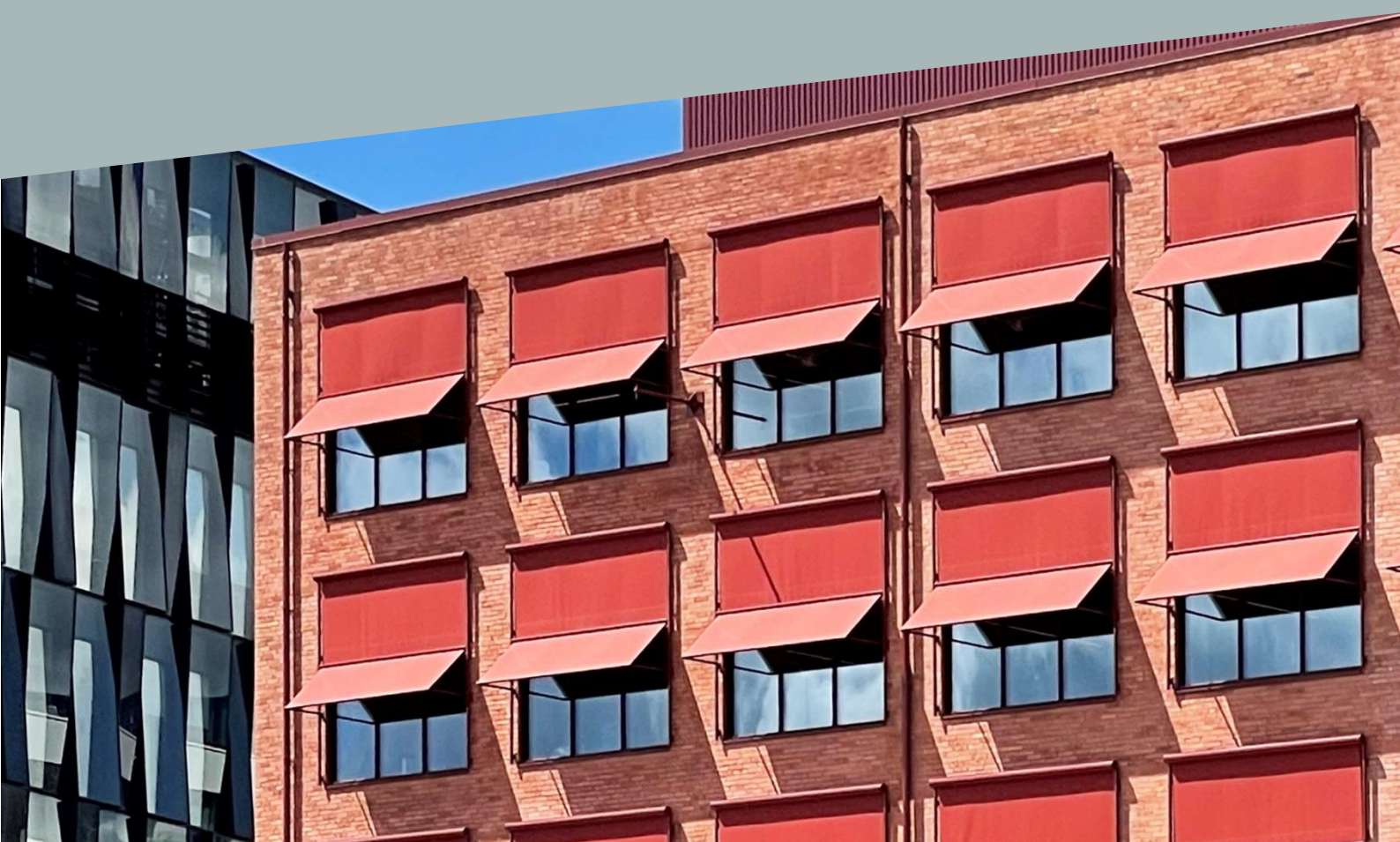
ECO PLATFORM EPD VERIFIED

Owner: Fischer International A/S
No.: MD-23166-EN
Issued: 18-12-2023
Valid to: 18-12-2028

3rd PARTY **VERIFIED**

EPD

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



Owner of declaration
Fischer International A/S
Holmstrupgårdvej 4
8220 Brabrand
VAT: 20033290

Programme
EPD Danmark
www.epddanmark.dk

☐ Industry EPD
☒ Product EPD

Declared product(s)
The EPD covers all Awning and Markisolette Systems below sold under the brand names Fischer, Blendex, Kvint Blendex and Fönsterdesign Blendex. The declared products are listed below as specific model types to represent Awning and Markisolette product group.

- Awning System 85 mm headbox, manually controlled with tape
- Awning System 85 mm headbox, motor controlled
- Awning System 119 mm headbox, motor controlled
- Markisolette System 95 mm round headbox, motor controlled
- Markisolette System 95 mm straight headbox, motor controlled
- Markisolette System 125 mm round headbox, motor controlled
- Markisolette System 125 mm straight headbox, motor controlled

Number of declared datasets: 7

Production site
Fischer International's production site in Lithuania
Address: Siūlų g. 1, Kaunas 45202, Lithuania

Products use
Awnings and Markisolette Systems are flexible, adaptable solar shading solutions for buildings, aimed at shielding and protecting against solar radiation. They improve indoor climate control and reduce energy expenditures on cooling. Awning Systems offer an unobstructed view and enhance aesthetics, suiting various architectural styles. Markisolette Systems blend exterior screens and awnings, providing superior sun protection and clear views ideal for buildings prioritizing both functionality and style.

Declared/ functional unit
1 m^2 of Awning or Markisolette Systems

Year of data
2022

Issued: 18-12-2023
Valid to: 18-12-2028

Basis of calculation
This EPD is developed 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:

Kim Christiansen

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	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

Product information

Product description

The main product components are shown in the table below.

Material	Awning 85-Tape	Awning 85-Motor	Awning 110-Motor	Markisolette 95-R	Markisolette 95-S	Markisolette 125-R	Markisolette 125-S
Aluminium	91,8%	81,2%	72,0%	53,2%	56,7%	44,0%	41,8%
Electric motor	0,0%	7,2%	8,7%	6,5%	6,0%	7,7%	8,7%
Polyamide	1,1%	2,7%	1,2%	0,6%	0,6%	1,4%	1,4%
Polypropylene	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Rubber	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%	0,0%
Dyed acrylic fabric	4,5%	6,2%	5,1%	3,7%	3,6%	4,6%	4,6%
Glass fiber	0,0%	0,08%	0,0%	0,0%	0,0%	0,0%	0,0%
Stainless steel	0,9%	1,7%	3,1%	1,0%	1,6%	1,8%	2,5%
Steel	1,7%	0,9%	9,8%	34,9%	31,4%	40,5%	40,9%

The packaging composition is listed in the table below.

Name	Awning 85-Tape	Awning 85-Motor	Awning 110-Motor	Markisolette 95-R	Markisolette 95-S	Markisolette 125-R	Markisolette 125-S
Corrug. Box	46,1%	46,1%	46,1%	57,2%	57,2%	57,2%	57,2%
Tape	0,4%	0,4%	0,4%	0,4%	0,4%	0,4%	0,4%
End cardb.	4,2%	4,2%	4,2%	4,5%	4,5%	4,5%	4,5%
Foam	2,2%	2,2%	2,2%	2,0%	2,0%	2,0%	2,0%
Pallet	47,1%	47,1%	47,1%	35,9%	35,9%	35,9%	35,9%

Representativity

This declaration, including data collection and the modelled foreground system including results, represents the production of Awning and Markisolette Systems on the production site located in Kaunas, Lithuania. Product specific data are based on average values collected in the year 2020. Background data are based on the GaBi 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.

The product composition and dimensions are based on the established standard dimensions in the c-pcr for the windows set to 1,23 m in width and 1,48 m in length. The sizes are then scaled to the declared unit of 1 m^2.

Hazardous substances

The Awning and Markisolette Systems do not contain substances listed in the ”Candidate List of Substances of Very High Concern for authorisation” (http://echa.europa.eu/candidate-list-table)

Essential characteristics

The Markisolette and Awning System is covered by harmonised technical specification in PCR-SS-2.3:2020 for “Sunscreens, blinds and shutters”. Both systems additionally live up to the following directives for CE marking:
- 2006/42/EF Machinery directive
- 2014/35/EU Low Voltage Directive
- 2014/30/EU EMC Directive

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

https://fischer-international.dk/products/drop-arm-awnings/

Reference Service Life (RSL)

The lifetime of the rail and system installation is 25 years. The lifetime of the electric motor and the Awning and Markisolette System fabric is 15 years.

Pictures of products

The pictures below show how products are available with a rounded and straight shaped headbox. The headboxes can be in various sizes, as well as the aluminium tube where the fabric is rolled up on. Furthermore, the awnings can be available with a motor or a tape control system. This specification is found in the product name.

The photos below show the Awning and Markisolette System with the various headbox types. The motor is hid behind the headbox.

Picture of Awning System with a rounded headbox

Picture of Markisolette System with a straight headbox

LCA background

Declared unit

The LCI and LCIA results in this EPD relates to 1 m^2 of Awning and Markisolette System

Name	Awning 85-Tape	Awning 85-Motor	Awning 110-Motor	Markisolette 95-R	Markisolette 95-S	Markisolette 125-R	Markisolette 125-S
Declared unit, m2	1	1	1	1	1	1	1
Mass per declared unit, kg/m^2	10,391	9,675	11,816	15,852	16,244	12,702	12,573
Conversion to kg	0,096	0,103	0,085	0,063	0,062	0,079	0,080

Functional unit

The functional unit is not defined as the use stages B1-B7 are not declared.

Reference service life (RSL)

The reference service life (RSL) is approx. 25 years on the Awning and Markisolette System.

PCR

This EPD is developed according to the core rules for the product category of construction products in EN 15804+A2 version 2019. Additionally the dimensions are based on PCR prEN N062:2017; "Windows and doors — Environmental Product Declarations — Product category rules for windows and pedestrian doorsets".

Guarantee of Origin – certificates

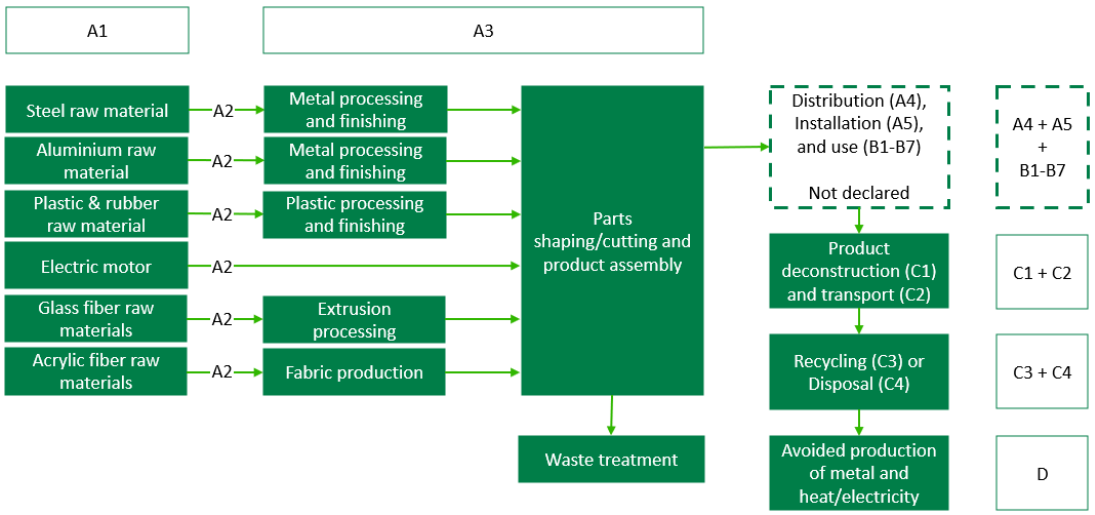
Foreground system:
No guarantees of origin or certificated for green electricity or energy production
are used in manufacturing. Consumption of electricity is modelled with the country specific residual electricity grid mix. Consumption of heat is modelled with average data, representative for the geographical area, which in this case is Lithuania.

Background system:

Other processes upstream and downstream from the production are modelled with processes from the GaBi Database 2023.2 that is based on average data.

Flow diagram

The process diagram below represents the life cycle of an Awning and Markisolette System product from Fischer.



This EPD is based on a cradle-to-grave LCA with modules C1-C4 and D, in which 100 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 steel parts, as well as plastic/rubber parts, are manufactured by suppliers. Aluminium extruded side-rails are received in long shapes and cut into final length. Other aluminium parts are manufactured entirely at suppliers.

Electric motor is received from suppliers as a complete unit.

The awning and markisolette fabric in woven dyed acrylic is produced by reacting certain petroleum or coal-based chemicals with a variety of monomers by sub suppliers. The fabric is then received on large reels from suppliers. The fabric is washed, stretched, and dried before it is cut into its final shape. The electricity and heat that is produced from the waste-to-energy incineration of the dyed acrylic in the production waste is credited as exported electrical energy (EEE) and exported thermal energy (EET).

Construction process stage (A4-A5) includes:

Transport to and installation on the construction site in not included.

Use stage (B1-B7) includes:

Use phase in not included.

End of Life (C1-C4) includes:

The Awning and Markisolette Systems are assumed disposed of in Northern Europe. The Awning and Markisolette Systems are assumed dismantled using hand tools (C1) and transported to local recycling (C2).

The remaining product is dismantled in an industrial shredder assuming average recovery of materials (C3).

The fabric in dyed acrylic is landfill with no gaseous emissions related to it (C4).

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

The recycled metals are credited an avoided production of primary steel and aluminium.

LCA results

Awning with 85 mm headbox, tape controlled

Awning with 85 mm headbox, tape controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M^2							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	9,86E+01	0,00E+00	2,06E-02	6,04E-01	3,92E-02	-7,58E+01
GWP-fossil	[kg CO_2 eq.]	9,80E+01	0,00E+00	2,04E-02	6,04E-01	3,98E-02	-7,58E+01
GWP-bio	[kg CO_2 eq.]	6,42E-01	0,00E+00	4,48E-05	4,21E-04	-6,52E-04	1,52E-02
GWP-luluc	[kg CO_2 eq.]	3,42E-02	0,00E+00	1,91E-04	5,60E-05	4,99E-05	-1,05E-02
ODP	[kg CFC 11 eq.]	7,65E-10	0,00E+00	2,68E-15	6,06E-12	7,37E-14	-9,82E-11
AP	[mol H^+ eq.]	3,21E-01	0,00E+00	3,04E-05	9,31E-04	1,50E-04	-2,69E-01
EP-fw	[kg P eq.]	4,15E-04	0,00E+00	7,54E-08	8,29E-07	6,30E-06	-4,14E-05
EP-mar	[kg N eq.]	6,38E-02	0,00E+00	1,10E-05	2,61E-04	3,60E-05	-5,02E-02
EP-ter	[mol N eq.]	6,11E-01	0,00E+00	1,31E-04	2,76E-03	3,96E-04	-5,46E-01
POCP	[kg NMVOC eq.]	1,70E-01	0,00E+00	2,66E-05	7,21E-04	1,12E-04	-1,48E-01
ADP-mm[1]	[kg Sb eq.]	3,89E-05	0,00E+00	1,37E-09	3,10E-08	1,21E-09	-4,70E-06
ADP-fos[1]	[MJ]	1,51E+03	0,00E+00	2,81E-01	1,32E+01	5,86E-01	-1,04E+03
WDP[1]	[m^3]	2,35E+01	0,00E+00	2,49E-04	5,39E-02	3,51E-04	-4,49E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Awning with 85 mm headbox, tape controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M^2							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	5,04E-06	0,00E+00	2,62E-10	8,39E-09	1,59E-09	-2,82E-06
IRP[2]	[kBq U235 eq.]	2,57E+01	0,00E+00	7,87E-05	3,09E-01	9,83E-04	-1,70E+01
ETP-fw[1]	[CTUe]	4,12E+02	0,00E+00	2,01E-01	1,23E+00	4,78E-01	-2,66E+02
HTP-c[1]	[CTUh]	1,69E-07	0,00E+00	4,08E-12	7,28E-11	2,96E-11	-3,11E-08
HTP-nc[1]	[CTUh]	1,11E-06	0,00E+00	1,82E-10	2,30E-09	2,58E-09	-6,28E-07
SQP[1]	-	5,63E+02	0,00E+00	1,17E-01	1,88E+00	6,61E-02	-6,89E+01
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)						
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.						

Awning with 85 mm headbox, tape controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	6,08E+02	0,00E+00	2,05E-02	1,98E+00	6,00E-02	-3,44E+02
PERM	[MJ]	1,94E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	6,27E+02	0,00E+00	2,05E-02	1,98E+00	6,00E-02	-3,44E+02
PENRE	[MJ]	1,49E+03	0,00E+00	2,82E-01	1,32E+01	5,86E-01	-1,04E+03
PENRM	[MJ]	1,84E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,51E+03	0,00E+00	2,82E-01	1,32E+01	5,86E-01	-1,04E+03
SM	[kg]	1,13E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	9,65E-01	0,00E+00	2,24E-05	3,14E-03	2,97E-05	-6,79E-01
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						

Awning with 85 mm headbox, tape controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,73E-05	0,00E+00	8,73E-13	7,18E-10	4,32E-11	-3,84E-08
NHWD	[kg]	2,29E+01	0,00E+00	4,30E-05	1,41E-02	9,66E-01	-1,69E+01
RWD	[kg]	1,34E-01	0,00E+00	5,28E-07	2,05E-03	6,90E-06	-7,80E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,25E+00	0,00E+00	0,00E+00	9,41E+00	0,00E+00	0,00E+00
MER	[kg]	1,35E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Awning with 85 mm headbox, tape controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	6,20E-01

Awning with 85 mm headbox, motor controlled

Awning with 85 mm headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	8,89E+01	0,00E+00	2,50E-02	5,74E-01	5,13E-02	-6,45E+01
GWP-fossil	[kg CO_2 eq.]	8,83E+01	0,00E+00	2,47E-02	5,73E-01	5,21E-02	-6,45E+01
GWP-bio	[kg CO_2 eq.]	5,99E-01	0,00E+00	5,43E-05	6,66E-04	-7,87E-04	1,51E-02
GWP-luluc	[kg CO_2 eq.]	3,27E-02	0,00E+00	2,32E-04	5,32E-05	5,83E-05	-9,90E-03
ODP	[kg CFC 11 eq.]	6,51E-10	0,00E+00	3,25E-15	5,80E-12	9,37E-14	-8,26E-11
AP	[mol H^+ eq.]	2,92E-01	0,00E+00	3,69E-05	8,81E-04	1,84E-04	-2,32E-01
EP-fw	[kg P eq.]	3,76E-04	0,00E+00	9,14E-08	1,11E-06	8,81E-06	-4,24E-05
EP-mar	[kg N eq.]	5,84E-02	0,00E+00	1,34E-05	2,46E-04	4,36E-05	-4,27E-02
EP-ter	[mol N eq.]	5,56E-01	0,00E+00	1,58E-04	2,59E-03	4,79E-04	-4,65E-01
POCP	[kg NMVOC eq.]	1,55E-01	0,00E+00	3,23E-05	6,76E-04	1,36E-04	-1,27E-01
ADP-mm[1]	[kg Sb eq.]	3,78E-04	0,00E+00	1,66E-09	3,15E-08	1,52E-09	-1,97E-04
ADP-fos[1]	[MJ]	1,37E+03	0,00E+00	3,41E-01	1,22E+01	7,70E-01	-8,83E+02
WDP[1]	[m^3]	2,12E+01	0,00E+00	3,02E-04	5,47E-02	8,49E-05	-4,14E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Awning with 85 mm headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	4,48E-06	0,00E+00	3,18E-10	7,90E-09	1,91E-09	-2,43E-06
IRP[2]	[kBq U235 eq.]	2,19E+01	0,00E+00	9,54E-05	2,85E-01	1,31E-03	-1,42E+01
ETP-fw[1]	[CTUe]	3,79E+02	0,00E+00	2,44E-01	1,26E+00	6,38E-01	-2,28E+02
HTP-c[1]	[CTUh]	2,88E-07	0,00E+00	4,95E-12	7,38E-11	3,73E-11	-2,72E-08
HTP-nc[1]	[CTUh]	1,03E-06	0,00E+00	2,20E-10	2,27E-09	3,17E-09	-5,30E-07
SQP[1]	-	5,59E+02	0,00E+00	1,42E-01	1,87E+00	8,06E-02	-6,02E+01
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)						
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.						

Awning with 85 mm headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5,27E+02	0,00E+00	2,48E-02	2,08E+00	7,60E-02	-2,88E+02
PERM	[MJ]	1,94E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,46E+02	0,00E+00	2,48E-02	2,08E+00	7,60E-02	-2,88E+02
PENRE	[MJ]	1,34E+03	0,00E+00	3,42E-01	1,22E+01	7,71E-01	-8,85E+02
PENRM	[MJ]	2,72E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,37E+03	0,00E+00	3,42E-01	1,22E+01	7,71E-01	-8,85E+02
SM	[kg]	1,17E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	8,42E-01	0,00E+00	2,72E-05	3,05E-03	2,91E-05	-5,76E-01
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						

Awning with 85 mm headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,72E-05	0,00E+00	1,06E-12	5,92E-10	5,94E-11	-3,22E-08
NHWD	[kg]	1,97E+01	0,00E+00	5,21E-05	2,94E-02	1,10E+00	-1,40E+01
RWD	[kg]	1,14E-01	0,00E+00	6,40E-07	1,88E-03	9,09E-06	-6,51E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,16E+00	0,00E+00	0,00E+00	8,53E+00	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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Awning with 85 mm headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	6,20E-01

Awning with 110 mm headbox, motor controlled

Awning with 110 mm headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	9,95E+01	0,00E+00	3,08E-02	6,53E-01	5,40E-02	-7,21E+01
GWP-fossil	[kg CO_2 eq.]	9,88E+01	0,00E+00	3,05E-02	6,52E-01	5,48E-02	-7,21E+01
GWP-bio	[kg CO_2 eq.]	6,62E-01	0,00E+00	6,70E-05	4,96E-04	-8,56E-04	2,04E-02
GWP-luluc	[kg CO_2 eq.]	3,83E-02	0,00E+00	2,86E-04	6,05E-05	6,43E-05	-1,20E-02
ODP	[kg CFC 11 eq.]	7,08E-10	0,00E+00	4,01E-15	6,55E-12	9,97E-14	-8,40E-11
AP	[mol H^+ eq.]	3,31E-01	0,00E+00	4,55E-05	1,00E-03	1,99E-04	-2,58E-01
EP-fw	[kg P eq.]	4,32E-04	0,00E+00	1,13E-07	9,45E-07	9,02E-06	-4,04E-05
EP-mar	[kg N eq.]	6,51E-02	0,00E+00	1,65E-05	2,82E-04	4,73E-05	-4,76E-02
EP-ter	[mol N eq.]	6,23E-01	0,00E+00	1,95E-04	2,98E-03	5,20E-04	-5,18E-01
POCP	[kg NMVOC eq.]	1,75E-01	0,00E+00	3,98E-05	7,77E-04	1,48E-04	-1,41E-01
ADP-mm[1]	[kg Sb eq.]	5,95E-04	0,00E+00	2,05E-09	3,38E-08	1,62E-09	-2,92E-04
ADP-fos[1]	[MJ]	1,51E+03	0,00E+00	4,20E-01	1,42E+01	8,09E-01	-9,70E+02
WDP[1]	[m^3]	2,44E+01	0,00E+00	3,73E-04	5,88E-02	2,51E-04	-4,46E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Awning with 110 mm headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	5,23E-06	0,00E+00	3,92E-10	9,05E-09	2,08E-09	-2,72E-06
IRP[2]	[kBq U235 eq.]	2,37E+01	0,00E+00	1,18E-04	3,32E-01	1,37E-03	-1,55E+01
ETP-fw[1]	[CTUe]	4,19E+02	0,00E+00	3,01E-01	1,34E+00	6,65E-01	-2,50E+02
HTP-c[1]	[CTUh]	6,05E-07	0,00E+00	6,11E-12	7,94E-11	3,99E-11	-3,28E-08
HTP-nc[1]	[CTUh]	1,19E-06	0,00E+00	2,72E-10	2,50E-09	3,42E-09	-5,76E-07
SQP[1]	-	5,82E+02	0,00E+00	1,76E-01	2,05E+00	8,73E-02	-6,55E+01
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)						
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.						

Awning with 110 mm headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5,73E+02	0,00E+00	3,06E-02	2,17E+00	8,10E-02	-3,12E+02
PERM	[MJ]	1,94E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,92E+02	0,00E+00	3,06E-02	2,17E+00	8,10E-02	-3,12E+02
PENRE	[MJ]	1,48E+03	0,00E+00	4,22E-01	1,42E+01	8,09E-01	-9,71E+02
PENRM	[MJ]	2,36E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,51E+03	0,00E+00	4,22E-01	1,42E+01	8,09E-01	-9,71E+02
SM	[kg]	1,54E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	9,03E-01	0,00E+00	3,35E-05	3,40E-03	3,48E-05	-6,27E-01
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						

Awning with 110 mm headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,77E-05	0,00E+00	1,31E-12	7,61E-10	6,12E-11	-3,52E-08
NHWD	[kg]	2,16E+01	0,00E+00	6,43E-05	1,77E-02	1,23E+00	-1,52E+01
RWD	[kg]	1,23E-01	0,00E+00	7,89E-07	2,20E-03	9,53E-06	-7,07E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,38E+00	0,00E+00	0,00E+00	1,06E+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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Awning with 110 mm headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	6,20E-01

Markisolette with 95 mm round headbox, motor controlled

Markisolette with 95 mm round headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	1,02E+02	0,00E+00	3,75E-02	8,77E-01	5,54E-02	-7,77E+01
GWP-fossil	[kg CO_2 eq.]	1,02E+02	0,00E+00	3,71E-02	8,76E-01	5,63E-02	-7,77E+01
GWP-bio	[kg CO_2 eq.]	6,87E-01	0,00E+00	8,15E-05	5,23E-04	-9,41E-04	2,97E-02
GWP-luluc	[kg CO_2 eq.]	3,85E-02	0,00E+00	3,47E-04	8,13E-05	7,25E-05	-1,44E-02
ODP	[kg CFC 11 eq.]	6,37E-10	0,00E+00	4,88E-15	8,78E-12	1,05E-13	-6,39E-11
AP	[mol H^+ eq.]	3,30E-01	0,00E+00	5,53E-05	1,35E-03	2,16E-04	-2,70E-01
EP-fw	[kg P eq.]	3,93E-04	0,00E+00	1,37E-07	1,10E-06	8,72E-06	-3,90E-05
EP-mar	[kg N eq.]	6,61E-02	0,00E+00	2,01E-05	3,80E-04	5,19E-05	-5,05E-02
EP-ter	[mol N eq.]	6,40E-01	0,00E+00	2,37E-04	4,01E-03	5,70E-04	-5,50E-01
POCP	[kg NMVOC eq.]	1,83E-01	0,00E+00	4,84E-05	1,05E-03	1,62E-04	-1,51E-01
ADP-mm[1]	[kg Sb eq.]	7,04E-04	0,00E+00	2,49E-09	4,44E-08	1,72E-09	-2,89E-04
ADP-fos[1]	[MJ]	1,51E+03	0,00E+00	5,11E-01	1,93E+01	8,26E-01	-1,01E+03
WDP[1]	[m^3]	1,95E+01	0,00E+00	4,53E-04	7,71E-02	6,09E-04	-4,43E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Markisolette with 95 mm round headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	5,94E-06	0,00E+00	4,76E-10	1,22E-08	2,31E-09	-2,90E-06
IRP[2]	[kBq U235 eq.]	2,16E+01	0,00E+00	1,43E-04	4,51E-01	1,38E-03	-1,52E+01
ETP-fw[1]	[CTUe]	3,92E+02	0,00E+00	3,66E-01	1,76E+00	6,71E-01	-2,54E+02
HTP-c[1]	[CTUh]	2,93E-07	0,00E+00	7,42E-12	1,04E-10	4,23E-11	-4,22E-08
HTP-nc[1]	[CTUh]	1,09E-06	0,00E+00	3,30E-10	3,31E-09	3,70E-09	-5,63E-07
SQP[1]	-	5,82E+02	0,00E+00	2,13E-01	2,70E+00	9,52E-02	-6,03E+01
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)						
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.						

Markisolette with 95 mm round headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5,27E+02	0,00E+00	3,72E-02	2,81E+00	8,55E-02	-3,01E+02
PERM	[MJ]	2,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,51E+02	0,00E+00	3,72E-02	2,81E+00	8,55E-02	-3,01E+02
PENRE	[MJ]	1,49E+03	0,00E+00	5,13E-01	1,93E+01	8,27E-01	-1,01E+03
PENRM	[MJ]	2,19E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,51E+03	0,00E+00	5,13E-01	1,93E+01	8,27E-01	-1,01E+03
SM	[kg]	2,46E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	8,01E-01	0,00E+00	4,07E-05	4,53E-03	4,49E-05	-6,24E-01
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						

Markisolette with 95 mm round headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,78E-05	0,00E+00	1,59E-12	1,07E-09	6,01E-11	-3,50E-08
NHWD	[kg]	1,97E+01	0,00E+00	7,82E-05	1,52E-02	1,41E+00	-1,52E+01
RWD	[kg]	1,12E-01	0,00E+00	9,60E-07	3,00E-03	9,72E-06	-6,93E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	6,99E-01	0,00E+00	0,00E+00	1,44E+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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Markisolette with 95 mm round headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	7,80E-01

Markisolette with 95 mm straight headbox, motor controlled

Markisolette with 95 mm straight headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	1,10E+02	0,00E+00	3,78E-02	9,02E-01	5,54E-02	-8,29E+01
GWP-fossil	[kg CO_2 eq.]	1,09E+02	0,00E+00	3,73E-02	9,02E-01	5,63E-02	-8,29E+01
GWP-bio	[kg CO_2 eq.]	7,44E-01	0,00E+00	8,21E-05	5,37E-04	-9,48E-04	2,97E-02
GWP-luluc	[kg CO_2 eq.]	4,16E-02	0,00E+00	3,50E-04	8,37E-05	7,32E-05	-1,49E-02
ODP	[kg CFC 11 eq.]	6,96E-10	0,00E+00	4,92E-15	9,03E-12	1,05E-13	-7,43E-11
AP	[mol H^+ eq.]	3,55E-01	0,00E+00	5,57E-05	1,39E-03	2,18E-04	-2,89E-01
EP-fw	[kg P eq.]	4,39E-04	0,00E+00	1,38E-07	1,13E-06	8,68E-06	-4,20E-05
EP-mar	[kg N eq.]	7,08E-02	0,00E+00	2,02E-05	3,91E-04	5,23E-05	-5,41E-02
EP-ter	[mol N eq.]	6,87E-01	0,00E+00	2,39E-04	4,13E-03	5,74E-04	-5,88E-01
POCP	[kg NMVOC eq.]	1,97E-01	0,00E+00	4,88E-05	1,08E-03	1,63E-04	-1,62E-01
ADP-mm[1]	[kg Sb eq.]	6,98E-04	0,00E+00	2,50E-09	4,57E-08	1,73E-09	-2,75E-04
ADP-fos[1]	[MJ]	1,62E+03	0,00E+00	5,15E-01	1,98E+01	8,26E-01	-1,08E+03
WDP[1]	[m^3]	2,22E+01	0,00E+00	4,57E-04	7,93E-02	6,45E-04	-4,78E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Markisolette with 95 mm straight headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	6,37E-06	0,00E+00	4,80E-10	1,26E-08	2,32E-09	-3,10E-06
IRP[2]	[kBq U235 eq.]	2,33E+01	0,00E+00	1,44E-04	4,64E-01	1,38E-03	-1,66E+01
ETP-fw[1]	[CTUe]	4,28E+02	0,00E+00	3,69E-01	1,81E+00	6,71E-01	-2,75E+02
HTP-c[1]	[CTUh]	4,44E-07	0,00E+00	7,48E-12	1,07E-10	4,24E-11	-4,34E-08
HTP-nc[1]	[CTUh]	1,21E-06	0,00E+00	3,33E-10	3,40E-09	3,72E-09	-6,14E-07
SQP[1]	-	5,94E+02	0,00E+00	2,15E-01	2,78E+00	9,58E-02	-6,63E+01
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)						
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.						

Markisolette with 95 mm straight headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	5,71E+02	0,00E+00	3,75E-02	2,89E+00	8,59E-02	-3,29E+02
PERM	[MJ]	2,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	5,95E+02	0,00E+00	3,75E-02	2,89E+00	8,59E-02	-3,29E+02
PENRE	[MJ]	1,60E+03	0,00E+00	5,17E-01	1,98E+01	8,27E-01	-1,08E+03
PENRM	[MJ]	2,20E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,62E+03	0,00E+00	5,17E-01	1,98E+01	8,27E-01	-1,08E+03
SM	[kg]	2,58E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	8,65E-01	0,00E+00	4,10E-05	4,66E-03	4,58E-05	-6,78E-01
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						

Markisolette with 95 mm straight headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,80E-05	0,00E+00	1,60E-12	1,10E-09	5,99E-11	-3,80E-08
NHWD	[kg]	2,15E+01	0,00E+00	7,88E-05	1,56E-02	1,43E+00	-1,65E+01
RWD	[kg]	1,21E-01	0,00E+00	9,67E-07	3,09E-03	9,72E-06	-7,56E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,41E+00	0,00E+00	0,00E+00	1,48E+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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Markisolette with 95 mm straight headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	7,80E-01

Markisolette with 125 mm round headbox, motor controlled

Markisolette with 125 mm round headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	8,22E+01	0,00E+00	3,18E-02	7,15E-01	5,31E-02	-5,45E+01
GWP-fossil	[kg CO_2 eq.]	8,16E+01	0,00E+00	3,14E-02	7,14E-01	5,39E-02	-5,45E+01
GWP-bio	[kg CO_2 eq.]	6,00E-01	0,00E+00	6,91E-05	5,67E-04	-8,60E-04	2,42E-02
GWP-luluc	[kg CO_2 eq.]	3,50E-02	0,00E+00	2,95E-04	6,63E-05	6,50E-05	-1,10E-02
ODP	[kg CFC 11 eq.]	4,62E-10	0,00E+00	4,14E-15	7,18E-12	9,87E-14	-3,75E-11
AP	[mol H^+ eq.]	2,59E-01	0,00E+00	4,69E-05	1,10E-03	1,99E-04	-1,88E-01
EP-fw	[kg P eq.]	3,16E-04	0,00E+00	1,16E-07	1,07E-06	8,71E-06	-3,08E-05
EP-mar	[kg N eq.]	5,43E-02	0,00E+00	1,70E-05	3,08E-04	4,75E-05	-3,53E-02
EP-ter	[mol N eq.]	5,19E-01	0,00E+00	2,02E-04	3,26E-03	5,22E-04	-3,83E-01
POCP	[kg NMVOC eq.]	1,49E-01	0,00E+00	4,11E-05	8,50E-04	1,48E-04	-1,06E-01
ADP-mm[1]	[kg Sb eq.]	6,80E-04	0,00E+00	2,11E-09	3,72E-08	1,61E-09	-2,74E-04
ADP-fos[1]	[MJ]	1,21E+03	0,00E+00	4,34E-01	1,55E+01	7,94E-01	-6,97E+02
WDP[1]	[m^3]	1,46E+01	0,00E+00	3,85E-04	6,47E-02	3,47E-04	-3,21E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Markisolette with 125 mm round headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	4,86E-06	0,00E+00	4,04E-10	9,91E-09	2,10E-09	-2,04E-06
IRP[2]	[kBq U235 eq.]	1,54E+01	0,00E+00	1,21E-04	3,63E-01	1,34E-03	-1,02E+01
ETP-fw[1]	[CTUe]	3,14E+02	0,00E+00	3,11E-01	1,48E+00	6,51E-01	-1,75E+02
HTP-c[1]	[CTUh]	3,95E-07	0,00E+00	6,30E-12	8,74E-11	3,96E-11	-3,19E-08
HTP-nc[1]	[CTUh]	8,72E-07	0,00E+00	2,80E-10	2,74E-09	3,42E-09	-3,77E-07
SQP[1]	-	5,52E+02	0,00E+00	1,81E-01	2,25E+00	8,74E-02	-4,01E+01
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)						
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.						

Markisolette with 125 mm round headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	3,90E+02	0,00E+00	3,16E-02	2,40E+00	8,03E-02	-1,99E+02
PERM	[MJ]	2,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	4,14E+02	0,00E+00	3,16E-02	2,40E+00	8,03E-02	-1,99E+02
PENRE	[MJ]	1,18E+03	0,00E+00	4,35E-01	1,55E+01	7,94E-01	-6,99E+02
PENRM	[MJ]	2,39E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,21E+03	0,00E+00	4,35E-01	1,55E+01	7,94E-01	-6,99E+02
SM	[kg]	2,52E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	5,87E-01	0,00E+00	3,46E-05	3,73E-03	3,68E-05	-4,24E-01
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						

Markisolette with 125 mm round headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,77E-05	0,00E+00	1,35E-12	8,26E-10	5,94E-11	-2,35E-08
NHWD	[kg]	1,41E+01	0,00E+00	6,63E-05	2,09E-02	1,25E+00	-1,01E+01
RWD	[kg]	8,05E-02	0,00E+00	8,14E-07	2,41E-03	9,35E-06	-4,60E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,25E+00	0,00E+00	0,00E+00	1,14E+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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Markisolette with 125 mm round headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	7,80E-01

Markisolette with 125 mm straight headbox, motor controlled

Markisolette with 125 mm straight headbox, motor controlled

ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
GWP-total	[kg CO_2 eq.]	8,04E+01	0,00E+00	3,24E-02	7,03E-01	5,35E-02	-5,24E+01
GWP-fossil	[kg CO_2 eq.]	7,98E+01	0,00E+00	3,21E-02	7,02E-01	5,43E-02	-5,24E+01
GWP-bio	[kg CO_2 eq.]	5,86E-01	0,00E+00	7,05E-05	5,62E-04	-8,63E-04	2,47E-02
GWP-luluc	[kg CO_2 eq.]	3,54E-02	0,00E+00	3,01E-04	6,52E-05	6,52E-05	-1,10E-02
ODP	[kg CFC 11 eq.]	4,39E-10	0,00E+00	4,22E-15	7,06E-12	9,94E-14	-3,35E-11
AP	[mol H^+ eq.]	2,54E-01	0,00E+00	4,79E-05	1,08E-03	2,00E-04	-1,81E-01
EP-fw	[kg P eq.]	3,05E-04	0,00E+00	1,19E-07	1,05E-06	8,82E-06	-2,97E-05
EP-mar	[kg N eq.]	5,32E-02	0,00E+00	1,74E-05	3,03E-04	4,77E-05	-3,38E-02
EP-ter	[mol N eq.]	5,09E-01	0,00E+00	2,06E-04	3,20E-03	5,24E-04	-3,68E-01
POCP	[kg NMVOC eq.]	1,47E-01	0,00E+00	4,19E-05	8,36E-04	1,49E-04	-1,02E-01
ADP-mm[1]	[kg Sb eq.]	7,50E-04	0,00E+00	2,15E-09	3,67E-08	1,62E-09	-3,10E-04
ADP-fos[1]	[MJ]	1,18E+03	0,00E+00	4,42E-01	1,53E+01	8,01E-01	-6,67E+02
WDP[1]	[m^3]	1,40E+01	0,00E+00	3,92E-04	6,37E-02	3,27E-04	-3,12E+00
Caption	GWP-total = Global Warming Potential - total; GWP-fossil = Global Warming Potential - fossil fuels; GWP-bio = Global Warming Potential - biogenic; GWP-luluc = Global Warming Potential - land use and land use change; ODP = Ozone Depletion; AP = Acidification; 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 use						
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.						

Markisolette with 125 mm straight headbox, motor controlled

ADDITIONAL ENVIRONMENTAL EFFECTS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PM	[Disease incidence]	4,78E-06	0,00E+00	4,12E-10	9,74E-09	2,10E-09	-1,97E-06
IRP[2]	[kBq U235 eq.]	1,47E+01	0,00E+00	1,24E-04	3,57E-01	1,35E-03	-9,59E+00
ETP-fw[1]	[CTUe]	3,07E+02	0,00E+00	3,17E-01	1,46E+00	6,57E-01	-1,68E+02
HTP-c[1]	[CTUh]	5,27E-07	0,00E+00	6,43E-12	8,60E-11	3,98E-11	-3,15E-08
HTP-nc[1]	[CTUh]	8,52E-07	0,00E+00	2,86E-10	2,70E-09	3,44E-09	-3,56E-07
SQP[1]	-	5,52E+02	0,00E+00	1,85E-01	2,21E+00	8,78E-02	-3,82E+01
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)						
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.						

Markisolette with 125 mm straight headbox, motor controlled

RESSOURCE CONSUMPTION PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
PERE	[MJ]	3,75E+02	0,00E+00	3,22E-02	2,36E+00	8,09E-02	-1,88E+02
PERM	[MJ]	2,43E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	[MJ]	3,99E+02	0,00E+00	3,22E-02	2,36E+00	8,09E-02	-1,88E+02
PENRE	[MJ]	1,15E+03	0,00E+00	4,44E-01	1,53E+01	8,01E-01	-6,68E+02
PENRM	[MJ]	2,39E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	[MJ]	1,18E+03	0,00E+00	4,44E-01	1,53E+01	8,01E-01	-6,68E+02
SM	[kg]	2,58E+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
NRSF	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	[m^3]	5,64E-01	0,00E+00	3,52E-05	3,67E-03	3,66E-05	-4,02E-01
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						

Markisolette with 125 mm straight headbox, motor controlled

WASTE CATEGORIES AND OUTPUT FLOWS PER PRODUKT PER M²							
Parameter	**Enhed**	**A1-A3**	**C1**	**C2**	**C3**	**C4**	**D**
HWD	[kg]	4,76E-05	0,00E+00	1,37E-12	8,11E-10	6,01E-11	-2,22E-08
NHWD	[kg]	1,35E+01	0,00E+00	6,77E-05	2,08E-02	1,25E+00	-9,55E+00
RWD	[kg]	7,69E-02	0,00E+00	8,31E-07	2,37E-03	9,43E-06	-4,34E-02
CRU	[kg]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
MFR	[kg]	1,25E+00	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
EEE	[MJ]	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EET	[MJ]	0,00E+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						

Markisolette with 125 mm straight headbox, motor controlled

BIOGENIC CARBON CONTENT PER PRODUKT PER M2		
Parameter	**Unit**	**At the factory gate**
Biogenic carbon content in product	kg C	0,00E+00
Biogenic carbon content in accompanying packaging	kg C	7,80E-01

Additional information

LCA interpretation

The results show that the production of primary aluminum is the dominating process in most of the environmental impact categories. Here the aluminum contribute between 39% and 86% to the total impacts. The production of primary aluminum makes up at least 45% of the total Climate Change impacts.

The environmental impact of Awning and Markisolette Systems varies based on window dimensions.

The datasets used to model the processes that contribute the most to the overall impacts are all considered to be "good/very good" in regard to their representativity. The fabric production, however, is modelled using Italian data from 2002, which has been considered "Poor/Fair" in regard to its representativity. Since the fabric only contribute between 1.5-8.3% of the total product, this data level is deemed sufficient. The overall uncertainty of the results is thus considered to be low.

Technical information on scenarios

Reference service life

RSL information	Unit
Reference service Life	25 Years
Declared product properties	Technical specifications and guidance can be obtained from direct contact to Fischer at +45 7015 4055 or fischer@fischer-international.dk
Design application parameters	
Assumed quality of work	
Outdoor environment	
Indoor environment	
Usage conditions	
Maintenance	

End of life (C1-C4)

Scenario information	Awning 85-Tape	Awning 85-Motor	Awning 110-Motor	Markisolette 95-R	Markisolette 95-S	Markisolette 125-R	Markisolette 125-S	Unit
Collected separately	10,39	9,67	11,81	15,86	16,25	12,70	12,57	kg
Collected with mixed waste	0	0	0	0	0	0	0	kg
For reuse	0	0	0	0	0	0	0	kg
For recycling	9,92	9,07	11,21	15,28	15,67	12,11	11,99	kg
For energy recovery	0	0	0	0	0	0	0	kg
For final disposal	0,47	0,61	0,61	0,58	0,58	0,58	0,58	kg
Assumptions for scenario development	Assumed dismantled using hand tools							

Re-use, recovery and recycling potential (D)

Avoided production	Awning 85-Tape	Awning 85-Motor	Awning 110-Motor	Markisolette 95-R	Markisolette 95-S	Markisolette 125-R	Markisolette 125-S	Unit
Plastic	0,09	0,21	0,06	0,07	0,05	0,05	0,06	kg
Steel	0,16	0,61	2,44	4,45	4,11	3,87	4,82	kg
Stainless steel	0,0208	0,0345	0,0363	0,0283	0,0334	0,023	0,0279	kg
Aluminium	5,39	12,85	8,83	6,78	6,75	3,26	3,85	kg
Copper	0,00	0,09	0,04	0,08	0,06	0,04	0,04	kg

The avoided production is only calculated on the virgin fraction of the type of input material in A1.

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	www.epddanmark.dk
Programme operator	Danish Technological Institute Buildings & Environment 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	Thinkstep GaBi 10.6 Database version 2021.2 www.gabi-software.com
3rd party verifier	Kim Christiansen Kimconsult.DK Marienborg Alle 91C DK-2860 Søborg www.kimconsult.dk

General programme instructions
Version 2.0
www.epddanmark.dk

EN 15804
DS/EN 15804 + A2:2019 - "Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products"

EN 15942
DS/EN 15942:2011 – " Sustainability of construction works – Environmental product declarations – Communication format business-to-business"

ISO 14025
DS/EN ISO 14025:2010 – " Environmental labels and declarations – Type III environmental declarations – Principles and procedures"

ISO 14040
DS/EN ISO 14040:2008 – " Environmental management – Life cycle assessment – Principles and framework"

ISO 14044
DS/EN ISO 14044:2008 – " Environmental management – Life cycle assessment – Requirements and guidelines"