



EPD®

# SAFENCE

*extends road safety*

From **BLUE SYSTEMS**

Programme:	The International EPD® System, <a href="http://www.environdec.com">www.environdec.com</a>
Programme operator:	EPD International AB
EPD registration number:	S-P-06420, Version 1.02
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*An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at [www.environdec.com](http://www.environdec.com)*

In accordance with ISO 14025 and EN 15804:2012+A2:2019 for

## GENERAL INFORMATION

### Programme information

<b>Programme:</b>	The International EPD® System
<b>Address:</b>	EPD International AB Box 210 60 SE-100 31 Stockholm Sweden
<b>Website:</b>	<a href="http://www.environdec.com">www.environdec.com</a>
<b>E-mail:</b>	<a href="mailto:info@environdec.com">info@environdec.com</a>

CEN standard EN 15804 serves as the Core Product Category Rules (PCR)

Product category rules (PCR): *PCR 2019:14 v1.11 Construction products. C-PCR-010 (TO PCR 2019:14) v2021-04-23 Guardrails and Bridge parapets. UN CPC 532*

PCR review was conducted by: *The technical committee of the international EPD System. A full list of members available on [www.environdec.com](http://www.environdec.com). The review panel may be contacted via [info@environdec.com](mailto:info@environdec.com). Chair of the review: Claudia A. Peña*

Independent third-party verification of the declaration and data, according to ISO 14025:2006:

EPD process certification     EPD verification

Third party verifier: *Pär Lindman, Miljögraff*

Approved by: The International EPD® System

Procedure for follow-up of data during EPD validity involves third party verifier:

Yes         No

The EPD owner has the sole ownership, liability, and responsibility for the EPD.

EPDs within the same product category but from different programmes may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804. For further information about comparability, see EN 15804 and ISO 14025.

Revision table

Version 1.01: Editorial changes for system descriptions.

COMPANY INFORMATION	
Owner of the EPD	Blue Systems
Contact	Daniel Maglica, daniel.maglica@bluesystems.se
Description of the organisation:	<p>Blue Systems AB commenced operations in 1992 by supplying the fishing industry with cable products and began with the production of cable barriers in 1993. Our operations have expanded into several countries since, and today Blue Systems AB is a road safety company specializing in road safety barriers. Our business concept is to offer our customers simple and environmentally friendly system solutions for road safety.</p> <p>This environmental product declaration presents the performance of SAFENCE systems, manufactured in Vildbjerg, Denmark.</p>

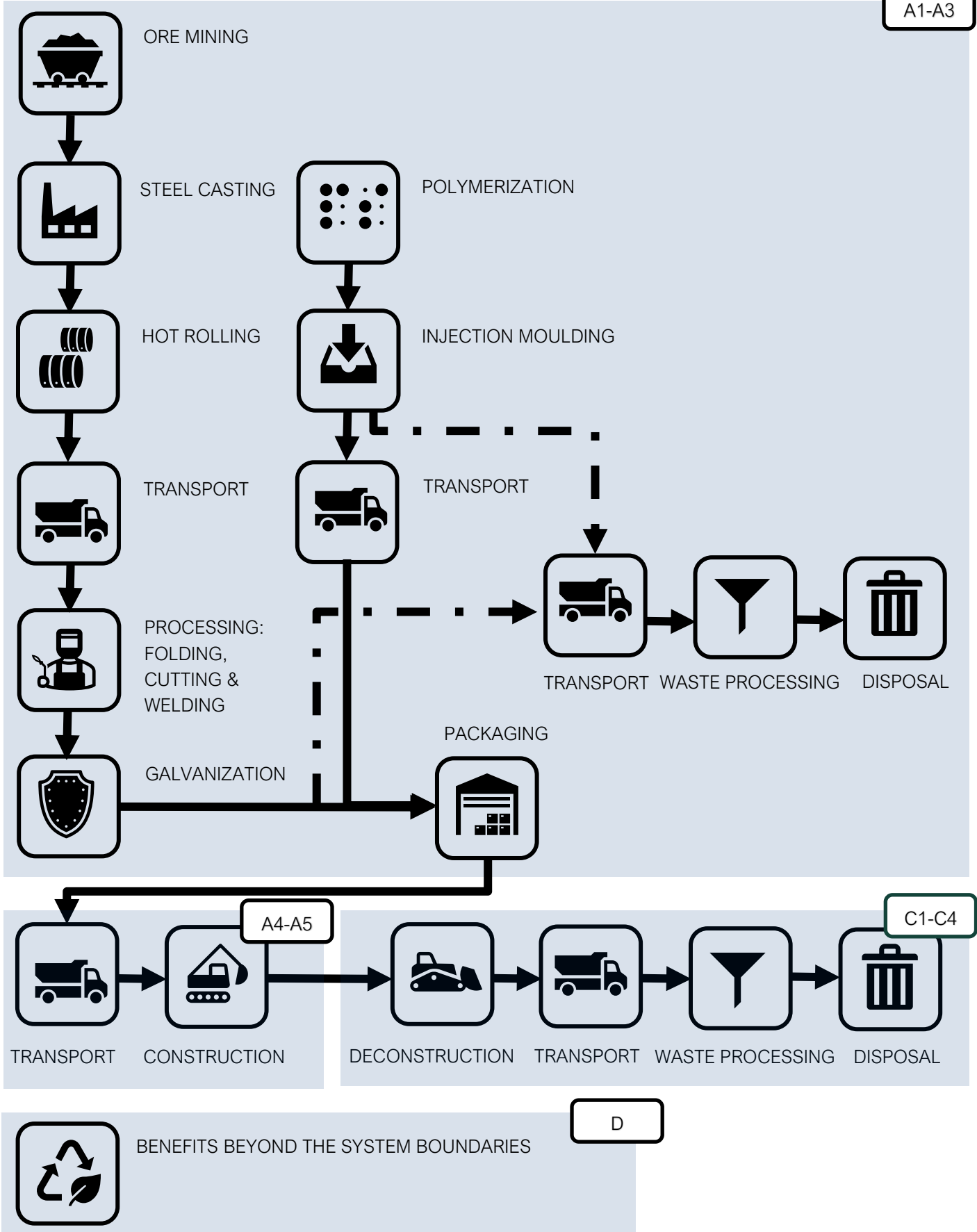
PRODUCT INFORMATION	
Product name	SAFENCE
Product description	<p>Road restraint systems initial type tested in accordance with EN1317, NCHRP350 or MASH16. Declarations of performance are annotated for each configuration.</p> <p>Road restraint systems are used to protect road users from hazards in the road network, such as errant vehicles or static objects. The road restraint systems are flexible through the use of cables in order to minimize the occupant risk of road users, through lower occupant ride-down accelerations and theoretical head impact value as described by the above-mentioned crash testing standards.</p>
UN CPC code:	532

LCA INFORMATION	
Declared unit	1 meter declared performance according to complied standard
Reference service life	30 years, as referenced by durability requirements according to EN ISO 1461 Fe/Zn 115
Time representativeness	Data represents the year 2022.
Database(s) and LCA software used	Ecoinvent 3.8, EN15804 addon, OpenLCA
Description of system boundaries	<p>The LCA has been conducted as a cradle to gate with options according to C-PCR 010: Guardrails and Bridge parapets (EPD International, 2021). The product stage (A1-A3), construction process stage (A4-A5), end of life stage (C1-C4) as well as benefits and loads beyond the system boundary (D) are included, whereas the use stage (B1-B7) is excluded from the product system in accordance with C-PCR 010: Guardrails and Bridge parapets (EPD International, 2021). All processes of which Blue Systems or Brdr. Markussens metalvare fabrik are managing have been measured specifically, however background and foreground data has been used when EPDs of suppliers have not been released for EN 15804+A2:2019.</p>

<p>Waste assumptions</p>	<p>With respect to the waste scenarios, steel has been calculated with a 100% recyclability rate without quality losses. Polypropylene and glass reinforced nylon has been calculated with 60% recyclability rate with 10% quality losses. The disposed polypropylene is incinerated for 99% and 1% is assumed to be put in landfill.</p> <p>Benefits as described in module D, have been modeled through generic thermal and electrical ecoinvent 3.8 data-sets. All EOL scenarios are modelled within the geographical scope of Sweden.</p>
<p>Description of manufacturing process</p>	<p>Manufacturing processes according to certificate 0402-CPR-SC0560-11, EN 1317-5+A2:2012 and EN 1317-5:2007+A2:2012/AC:2012 are performed in accordance with constancy of performance requirement at Brdr. Markussens metalvarefabrik A/S. Non-essential parts such as polypropylene components are outsourced to European plastic manufacturers and produced by injection moulding.</p> <p>All major production processes concerning steel are fully autonomous. Material is loaded onto the entering stages for robot cells and processed through operations such as 3-step folding, cutting, and welding. Lastly, steel components are HDG according to ISO 1461 Fe/Zn 115.</p> <p>ASTM A714-11 is manufactured by dieing and twining wire rods and continuous HDG.</p> <p>Simple components not requiring processing such as homogenous body reinforcement plates are only galvanized at the manufacturing site.</p>

## SYSTEM DIAGRAM

A1-A3



BENEFITS BEYOND THE SYSTEM BOUNDARIES

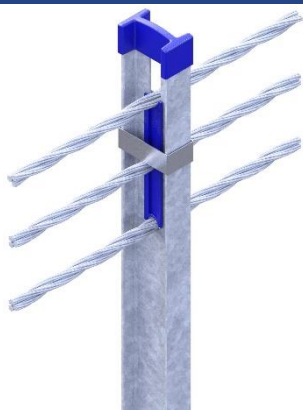
D

Modules declared, geographical scope, share of specific data (in GWP-GHG indicator) and data variation:																			
	Product stage			Construction process stage		Use stage							End of life stage				Resource recovery stage		
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery-Recycling-potential		
MODULE	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D		
Modules declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X		
Geography	EU	EU	EU	SE	SE	ND	ND	ND	ND	ND	ND	ND	SE	SE	SE	SE	SE		
Specific data used	(unknown)					-	-	-	-	-	-	-	-	-	-	-	-	-	
Variation – products	N/A					-	-	-	-	-	-	-	-	-	-	-	-	-	-
Variation – sites	N/A					-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: Specific data regarding input materials in terms of GWP-GHG can't be assessed due to underlying EPD data conforming to non-reporting EN15804:2012+A2:2019 EPD. Site specific measurements was conducted for processes at Brdr. Markussens Metalvarefabrik A/S. EPD data conforming to EN15804:2012+A1:2013 has been extrapolated conservatively with explanatory variables from Ecoinvent 3.8 to accommodate for additional flows and indicators not required by EN15804:2012+A1:2013. Control variables such as GWP-GHG has been measured to 140% for the sake of conservativity, as indicated by the differences in terms of results among GHG as characterized by EN15804:2012+A1:2013 versus EN15804:2012+A2:2019.

## SAFENCE 3RI-96 CC2.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RI-96 utilizes 3 wire ropes and post distance of 2.5 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width class	W4 (1.2 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.16	76,1%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.54	0 %	0 %
Total	7.73	70,5%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3269		4.23 %
Polypropylene bag	0.0007		< 0.01 %
Total	0.3275		4.23 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,58E+01	6,44E-01	4,65E-01	4,65E-01	3,82E-01	1,64E-01	4,67E-02	-1,13E+00
GWP-fossil	kg CO2 eq.	1,62E+01	6,43E-01	4,64E-01	4,64E-01	3,81E-01	1,73E-01	4,67E-02	-1,11E+00
GWP-biogenic	kg CO2 eq.	-4,26E-01	1,14E-03	3,00E-04	3,00E-04	6,80E-04	-9,68E-03	1,93E-06	-1,86E-02
GWP-luluc	kg CO2 eq.	2,96E-02	2,50E-04	4,78E-05	4,78E-05	1,50E-04	2,20E-04	2,35E-07	-1,50E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,39E+01	6,37E-01	4,61E-01	4,61E-01	3,78E-01	1,70E-01	4,67E-02	-1,09E+00
ODP	kg CFC 11 eq.	1,31E-06	1,50E-07	9,93E-08	9,93E-08	8,90E-08	2,09E-08	7,96E-11	-6,04E-08
AP	mol H+ eq.	8,16E-02	3,25E-03	4,82E-03	4,82E-03	1,93E-03	2,14E-03	7,12E-06	-4,92E-03
EP-freshwater	kg PO43- eq.	6,72E-03	4,21E-05	1,45E-05	1,45E-05	2,50E-05	1,20E-04	7,27E-08	-6,80E-04
EP-marine	kg N eq.	2,01E-02	1,12E-03	2,14E-03	2,14E-03	6,70E-04	4,70E-04	3,50E-06	-1,00E-03
EP-terrestrial	mol N eq.	2,05E-01	1,23E-02	2,34E-02	2,34E-02	7,28E-03	5,24E-03	3,51E-05	-9,95E-03
POCP	kg NMVOC eq.	6,24E-02	3,44E-03	6,37E-03	6,37E-03	2,04E-03	1,42E-03	8,61E-06	-2,75E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,07E-03	2,16E-06	2,17E-07	2,17E-07	1,28E-06	2,16E-05	2,09E-09	-3,14E-06
ADP-fossil <sup>2</sup>	MJ	1,16E+02	7,37E-01	3,13E-01	3,13E-01	4,37E-01	8,32E-01	1,50E-03	-7,99E+00
WDP	m3	8,23E+00	4,69E-02	1,56E-02	1,56E-02	2,78E-02	5,93E-02	1,50E-04	-8,93E-01

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,54E+01	1,04E-01	2,76E-02	2,76E-02	6,17E-02	1,72E-01	9,74E-05	-1,83E+00
PERM	MJ	1,43E+01	3,41E-02	8,07E-03	8,07E-03	2,02E-02	2,34E-01	4,44E-05	-3,44E-01
PERT	MJ	3,97E+01	1,38E-01	3,57E-02	3,57E-02	8,19E-02	4,07E-01	1,40E-04	-2,18E+00
PENRE	MJ	1,63E+02	9,41E-01	3,54E-01	3,54E-01	5,59E-01	1,19E+00	1,65E-03	-1,33E+01
PENRM	MJ	8,46E+01	8,91E+00	5,98E+00	5,98E+00	5,29E+00	1,42E+00	6,33E-03	-6,22E+00
PENRT	MJ	2,48E+02	9,86E+00	6,34E+00	6,34E+00	5,85E+00	2,61E+00	7,98E-03	-1,95E+01
SM	kg	8,22E+00	9,90E-03	4,69E-03	4,69E-03	5,87E-03	7,75E+00	2,83E-05	-2,58E+00
RSF	MJ	2,35E-01	2,95E-03	4,50E-04	4,50E-04	1,75E-03	5,28E-03	1,58E-06	-7,89E-02
NRSF	MJ	1,05E+00	1,20E-02	7,10E-04	7,10E-04	7,10E-03	3,99E-03	5,17E-06	2,31E-01
FW	m3	1,81E-01	1,12E-03	3,70E-04	3,70E-04	6,60E-04	1,40E-03	3,57E-06	-2,09E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,76E+01	2,17E-01	6,87E-02	6,87E-02	1,29E-01	8,16E-01	5,30E-04	-3,49E+00
NHWD	kg	3,39E+00	5,00E-01	4,68E-03	4,68E-03	2,97E-01	5,79E-02	1,87E-02	-4,85E-01
RWD	kg	2,40E-02	1,90E-04	7,29E-05	7,29E-05	1,20E-04	2,30E-04	1,14E-07	-3,30E-03
CRE	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
EE	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
MFER	kg	5,99E-01	2,26E-03	2,32E-03	2,32E-03	1,34E-03	1,89E-03	5,92E-06	-2,05E-03
MFR	kg	8,15E-01	8,22E-03	2,93E-03	2,93E-03	4,88E-03	1,08E-02	9,25E-06	-1,56E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

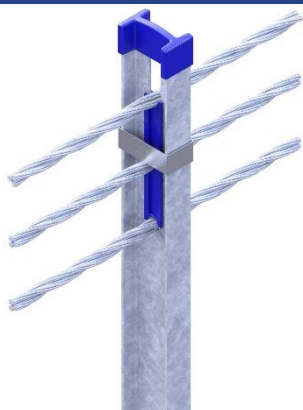
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE 3RI-96 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RI-96 utilizes 3 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width class	W5 (1.6 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.6 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.54	77,3%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.51	0 %	0 %
Total	7.06	71,4%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3152		4.47 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.3158		4.47 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,40E+01	5,72E-01	3,87E-01	3,87E-01	3,50E-01	1,50E-01	4,65E-02	-1,02E+00
GWP-fossil	kg CO2 eq.	1,44E+01	5,71E-01	3,87E-01	3,87E-01	3,49E-01	1,59E-01	4,65E-02	-1,00E+00
GWP-biogenic	kg CO2 eq.	-4,03E-01	1,01E-03	2,50E-04	2,50E-04	6,20E-04	-8,85E-03	1,93E-06	-1,67E-02
GWP-luluc	kg CO2 eq.	2,77E-02	2,30E-04	3,98E-05	3,98E-05	1,40E-04	2,10E-04	2,34E-07	-1,34E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,23E+01	5,66E-01	3,84E-01	3,84E-01	3,46E-01	1,56E-01	4,65E-02	-9,82E-01
ODP	kg CFC 11 eq.	1,13E-06	1,33E-07	8,27E-08	8,27E-08	8,14E-08	1,91E-08	7,94E-11	-5,42E-08
AP	mol H+ eq.	7,22E-02	2,89E-03	4,02E-03	4,02E-03	1,77E-03	1,96E-03	7,09E-06	-4,42E-03
EP-freshwater	kg PO43- eq.	5,86E-03	3,73E-05	1,21E-05	1,21E-05	2,28E-05	1,10E-04	7,25E-08	-6,10E-04
EP-marine	kg N eq.	1,78E-02	1,00E-03	1,78E-03	1,78E-03	6,10E-04	4,30E-04	3,49E-06	-8,90E-04
EP-terrestrial	mol N eq.	1,81E-01	1,09E-02	1,95E-02	1,95E-02	6,65E-03	4,79E-03	3,50E-05	-8,94E-03
POCP	kg NMVOC eq.	5,49E-02	3,05E-03	5,31E-03	5,31E-03	1,87E-03	1,29E-03	8,58E-06	-2,48E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	9,70E-04	1,92E-06	1,81E-07	1,81E-07	1,17E-06	1,97E-05	2,08E-09	-2,83E-06
ADP-fossil <sup>2</sup>	MJ	1,02E+02	6,54E-01	2,61E-01	2,61E-01	4,00E-01	7,61E-01	1,50E-03	-7,18E+00
WDP	m3	7,30E+00	4,16E-02	1,30E-02	1,30E-02	2,55E-02	5,43E-02	1,50E-04	-8,02E-01

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,31E+01	9,23E-02	2,30E-02	2,30E-02	5,64E-02	1,58E-01	9,71E-05	-1,64E+00
PERM	MJ	1,30E+01	3,03E-02	6,73E-03	6,73E-03	1,85E-02	2,14E-01	4,42E-05	-3,09E-01
PERT	MJ	3,61E+01	1,23E-01	2,97E-02	2,97E-02	7,49E-02	3,72E-01	1,40E-04	-1,95E+00
PENRE	MJ	1,45E+02	8,35E-01	2,95E-01	2,95E-01	5,11E-01	1,09E+00	1,64E-03	-1,19E+01
PENRM	MJ	7,37E+01	7,91E+00	4,99E+00	4,99E+00	4,84E+00	1,30E+00	6,31E-03	-5,66E+00
PENRT	MJ	2,19E+02	8,75E+00	5,28E+00	5,28E+00	5,35E+00	2,39E+00	7,95E-03	-1,76E+01
SM	kg	7,44E+00	8,78E-03	3,91E-03	3,91E-03	5,37E-03	7,09E+00	2,82E-05	-2,32E+00
RSF	MJ	2,04E-01	2,62E-03	3,70E-04	3,70E-04	1,60E-03	4,83E-03	1,58E-06	-7,08E-02
NRSF	MJ	9,16E-01	1,06E-02	5,90E-04	5,90E-04	6,49E-03	3,65E-03	5,15E-06	2,36E-01
FW	m3	1,62E-01	9,90E-04	3,10E-04	3,10E-04	6,10E-04	1,28E-03	3,56E-06	-1,88E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,35E+01	1,92E-01	5,72E-02	5,72E-02	1,18E-01	7,47E-01	5,30E-04	-3,13E+00
NHWD	kg	2,98E+00	4,44E-01	3,90E-03	3,90E-03	2,71E-01	5,32E-02	1,87E-02	-4,35E-01
RWD	kg	2,25E-02	1,70E-04	6,07E-05	6,07E-05	1,10E-04	2,10E-04	1,14E-07	-2,96E-03
CRE	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
EE	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
MFER	kg	5,00E-01	2,01E-03	1,93E-03	1,93E-03	1,23E-03	1,74E-03	5,90E-06	-1,84E-03
MFR	kg	6,95E-01	7,30E-03	2,44E-03	2,44E-03	4,46E-03	9,91E-03	9,22E-06	-1,40E-01

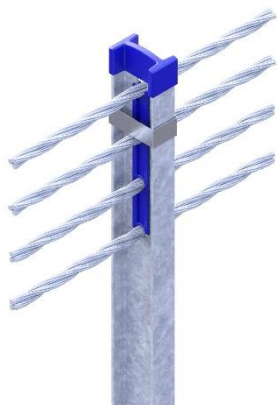
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RI-96 CC2.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RI-96 utilizes 4 wire ropes and post distance of 2.5 m and conform to EN1317-2



Containment level	H1, N2
Impact severity class	A
Normalized working width class	W5 (1.5 m), W4 (1.3 m)
Normalized vehicle intrusion class	-
Normalized dynamic deflection	1.5 m, 1.3 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	8.25	78,3%	0 %
Polypropylene	0.04	0 %	0 %
Zinc (from HDG)	0.66	0 %	0 %
Total	8.95	72,2%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4125		4.61 %
Polypropylene bag	0.0007		< 0.01 %
Total	0.4132		4.62 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.21

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,75E+01	7,11E-01	4,65E-01	4,65E-01	4,43E-01	1,91E-01	6,19E-02	-1,27E+00
GWP-fossil	kg CO2 eq.	1,80E+01	7,09E-01	4,64E-01	4,64E-01	4,42E-01	2,02E-01	6,19E-02	-1,25E+00
GWP-biogenic	kg CO2 eq.	-5,22E-01	1,26E-03	3,00E-04	3,00E-04	7,80E-04	-1,12E-02	2,56E-06	-2,09E-02
GWP-luluc	kg CO2 eq.	3,55E-02	2,80E-04	4,78E-05	4,78E-05	1,80E-04	2,60E-04	3,12E-07	-1,68E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,53E+01	7,03E-01	4,61E-01	4,61E-01	4,39E-01	1,98E-01	6,19E-02	-1,23E+00
ODP	kg CFC 11 eq.	1,40E-06	1,65E-07	9,93E-08	9,93E-08	1,03E-07	2,42E-08	1,06E-10	-6,76E-08
AP	mol H+ eq.	9,01E-02	3,59E-03	4,82E-03	4,82E-03	2,24E-03	2,49E-03	9,43E-06	-5,51E-03
EP-freshwater	kg PO43- eq.	7,24E-03	4,64E-05	1,45E-05	1,45E-05	2,89E-05	1,40E-04	9,64E-08	-7,60E-04
EP-marine	kg N eq.	2,22E-02	1,24E-03	2,14E-03	2,14E-03	7,70E-04	5,40E-04	4,64E-06	-1,12E-03
EP-terrestrial	mol N eq.	2,26E-01	1,35E-02	2,34E-02	2,34E-02	8,43E-03	6,07E-03	4,65E-05	-1,12E-02
POCP	kg NMVOC eq.	6,82E-02	3,80E-03	6,37E-03	6,37E-03	2,37E-03	1,64E-03	1,14E-05	-3,09E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,23E-03	2,39E-06	2,17E-07	2,17E-07	1,49E-06	2,50E-05	2,77E-09	-3,55E-06
ADP-fossil <sup>2</sup>	MJ	1,27E+02	8,13E-01	3,13E-01	3,13E-01	5,07E-01	9,66E-01	1,99E-03	-8,95E+00
WDP	m3	9,12E+00	5,18E-02	1,56E-02	1,56E-02	3,23E-02	6,89E-02	2,00E-04	-1,00E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,93E+01	1,15E-01	2,76E-02	2,76E-02	7,15E-02	2,00E-01	1,30E-04	-2,05E+00
PERM	MJ	1,65E+01	3,76E-02	8,07E-03	8,07E-03	2,35E-02	2,72E-01	5,88E-05	-3,85E-01
PERT	MJ	4,58E+01	1,52E-01	3,57E-02	3,57E-02	9,50E-02	4,71E-01	1,90E-04	-2,44E+00
PENRE	MJ	1,82E+02	1,04E+00	3,54E-01	3,54E-01	6,47E-01	1,38E+00	2,18E-03	-1,49E+01
PENRM	MJ	9,14E+01	9,84E+00	5,98E+00	5,98E+00	6,13E+00	1,65E+00	8,39E-03	-7,11E+00
PENRT	MJ	2,73E+02	1,09E+01	6,34E+00	6,34E+00	6,78E+00	3,03E+00	1,06E-02	-2,20E+01
SM	kg	9,41E+00	1,09E-02	4,69E-03	4,69E-03	6,81E-03	8,99E+00	3,75E-05	-2,89E+00
RSF	MJ	2,53E-01	3,25E-03	4,50E-04	4,50E-04	2,03E-03	6,12E-03	2,10E-06	-8,83E-02
NRSF	MJ	1,13E+00	1,32E-02	7,10E-04	7,10E-04	8,23E-03	4,63E-03	6,85E-06	3,18E-01
FW	m3	2,03E-01	1,23E-03	3,70E-04	3,70E-04	7,70E-04	1,63E-03	4,73E-06	-2,34E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,20E+01	2,39E-01	6,87E-02	6,87E-02	1,49E-01	9,46E-01	7,00E-04	-3,90E+00
NHWD	kg	3,70E+00	5,52E-01	4,68E-03	4,68E-03	3,44E-01	6,76E-02	2,48E-02	-5,43E-01
RWD	kg	2,89E-02	2,20E-04	7,29E-05	7,29E-05	1,30E-04	2,70E-04	1,51E-07	-3,69E-03
CRE	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
EE	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
MFER	kg	6,02E-01	2,50E-03	2,32E-03	2,32E-03	1,56E-03	2,21E-03	7,85E-06	-2,30E-03
MFR	kg	8,49E-01	9,07E-03	2,93E-03	2,93E-03	5,66E-03	1,26E-02	1,23E-05	-1,74E-01

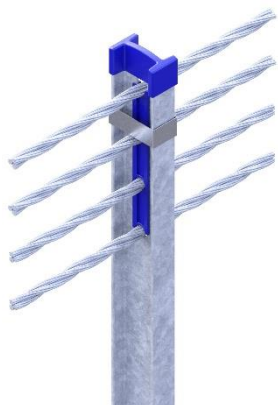
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RI-96 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
 SAFENCE 4RI-96 utilizes 4 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width class	W5 (1.6 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.6 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.61	79,6%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.63	0 %	0 %
Total	8.27	73,3%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4008		4.85 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.4015		4.85 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,57E+01	6,35E-01	3,87E-01	3,87E-01	4,09E-01	1,75E-01	4,65E-02	-1,14E+00
GWP-fossil	kg CO2 eq.	1,61E+01	6,34E-01	3,87E-01	3,87E-01	4,08E-01	1,85E-01	4,65E-02	-1,12E+00
GWP-biogenic	kg CO2 eq.	-4,99E-01	1,12E-03	2,50E-04	2,50E-04	7,20E-04	-1,04E-02	1,93E-06	-1,88E-02
GWP-luluc	kg CO2 eq.	3,36E-02	2,50E-04	3,98E-05	3,98E-05	1,60E-04	2,40E-04	2,34E-07	-1,51E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,36E+01	6,28E-01	3,84E-01	3,84E-01	4,05E-01	1,82E-01	4,65E-02	-1,10E+00
ODP	kg CFC 11 eq.	1,22E-06	1,48E-07	8,27E-08	8,27E-08	9,52E-08	2,24E-08	7,94E-11	-6,09E-08
AP	mol H+ eq.	8,07E-02	3,21E-03	4,02E-03	4,02E-03	2,07E-03	2,29E-03	7,09E-06	-4,96E-03
EP-freshwater	kg PO43- eq.	6,38E-03	4,15E-05	1,21E-05	1,21E-05	2,67E-05	1,30E-04	7,25E-08	-6,90E-04
EP-marine	kg N eq.	1,98E-02	1,11E-03	1,78E-03	1,78E-03	7,10E-04	5,00E-04	3,49E-06	-1,00E-03
EP-terrestrial	mol N eq.	2,03E-01	1,21E-02	1,95E-02	1,95E-02	7,78E-03	5,60E-03	3,50E-05	-1,00E-02
POCP	kg NMVOC eq.	6,07E-02	3,39E-03	5,31E-03	5,31E-03	2,18E-03	1,51E-03	8,58E-06	-2,78E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,14E-03	2,13E-06	1,81E-07	1,81E-07	1,37E-06	2,31E-05	2,08E-09	-3,17E-06
ADP-fossil <sup>2</sup>	MJ	1,13E+02	7,27E-01	2,61E-01	2,61E-01	4,68E-01	8,90E-01	1,50E-03	-8,06E+00
WDP	m3	8,19E+00	4,63E-02	1,30E-02	1,30E-02	2,98E-02	6,34E-02	1,50E-04	-9,00E-01

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,70E+01	1,02E-01	2,30E-02	2,30E-02	6,60E-02	1,84E-01	9,71E-05	-1,85E+00
PERM	MJ	1,53E+01	3,36E-02	6,73E-03	6,73E-03	2,17E-02	2,51E-01	4,42E-05	-3,47E-01
PERT	MJ	4,23E+01	1,36E-01	2,97E-02	2,97E-02	8,76E-02	4,35E-01	1,40E-04	-2,19E+00
PENRE	MJ	1,64E+02	9,28E-01	2,95E-01	2,95E-01	5,98E-01	1,27E+00	1,64E-03	-1,34E+01
PENRM	MJ	8,05E+01	8,79E+00	4,99E+00	4,99E+00	5,66E+00	1,52E+00	6,31E-03	-6,26E+00
PENRT	MJ	2,45E+02	9,72E+00	5,28E+00	5,28E+00	6,26E+00	2,79E+00	7,95E-03	-1,97E+01
SM	kg	8,64E+00	9,76E-03	3,91E-03	3,91E-03	6,28E-03	8,30E+00	2,82E-05	-2,61E+00
RSF	MJ	2,23E-01	2,91E-03	3,70E-04	3,70E-04	1,87E-03	5,65E-03	1,58E-06	-7,95E-02
NRSF	MJ	1,00E+00	1,18E-02	5,90E-04	5,90E-04	7,59E-03	4,26E-03	5,15E-06	2,30E-01
FW	m3	1,84E-01	1,10E-03	3,10E-04	3,10E-04	7,10E-04	1,50E-03	3,56E-06	-2,11E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,79E+01	2,14E-01	5,72E-02	5,72E-02	1,38E-01	8,73E-01	5,30E-04	-3,52E+00
NHWD	kg	3,29E+00	4,93E-01	3,90E-03	3,90E-03	3,18E-01	6,17E-02	1,87E-02	-4,89E-01
RWD	kg	2,74E-02	1,90E-04	6,07E-05	6,07E-05	1,20E-04	2,50E-04	1,14E-07	-3,33E-03
CRE	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
EE	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
MFER	kg	5,03E-01	2,23E-03	1,93E-03	1,93E-03	1,44E-03	2,01E-03	5,90E-06	-2,07E-03
MFR	kg	7,29E-01	8,11E-03	2,44E-03	2,44E-03	5,22E-03	1,16E-02	9,22E-06	-1,57E-01

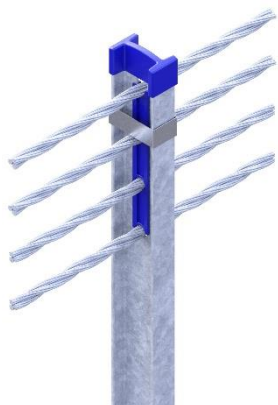
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE BL-4-I CC1.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE BL-4-I utilizes 4 wire ropes and post distance of 1.5 m and conform to EN1317-2



Containment level	H2
Impact severity class	A
Normalized working width class	W5 (1.7 m)
Normalized vehicle intrusion class	VI7 (2.5 m)
Normalized dynamic deflection	1.7 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	10.83	74,4%	0 %
Polypropylene	0.06	0 %	0 %
Zinc (from HDG)	0.77	0 %	0 %
Total	11.67	69,1%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4592		3.93 %
Polypropylene bag	0.0012		< 0.01 %
Total	0.4604		3.94 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.23

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,47E+01	1,01E+00	7,75E-01	7,75E-01	5,77E-01	2,50E-01	9,31E-02	-1,77E+00
GWP-fossil	kg CO2 eq.	2,53E+01	1,01E+00	7,74E-01	7,74E-01	5,76E-01	2,64E-01	9,31E-02	-1,74E+00
GWP-biogenic	kg CO2 eq.	-6,12E-01	1,78E-03	5,00E-04	5,00E-04	1,02E-03	-1,46E-02	3,86E-06	-2,89E-02
GWP-luluc	kg CO2 eq.	4,35E-02	4,00E-04	7,97E-05	7,97E-05	2,30E-04	3,40E-04	4,69E-07	-2,32E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,19E+01	9,98E-01	7,68E-01	7,68E-01	5,71E-01	2,60E-01	9,30E-02	-1,70E+00
ODP	kg CFC 11 eq.	2,09E-06	2,35E-07	1,65E-07	1,65E-07	1,34E-07	3,16E-08	1,59E-10	-9,37E-08
AP	mol H+ eq.	1,28E-01	5,10E-03	8,04E-03	8,04E-03	2,92E-03	3,24E-03	1,42E-05	-7,65E-03
EP-freshwater	kg PO43- eq.	1,07E-02	6,59E-05	2,42E-05	2,42E-05	3,77E-05	1,80E-04	1,45E-07	-1,06E-03
EP-marine	kg N eq.	3,15E-02	1,76E-03	3,56E-03	3,56E-03	1,01E-03	7,10E-04	6,98E-06	-1,55E-03
EP-terrestrial	mol N eq.	3,20E-01	1,92E-02	3,90E-02	3,90E-02	1,10E-02	7,91E-03	7,00E-05	-1,55E-02
POCP	kg NMVOC eq.	9,83E-02	5,39E-03	1,06E-02	1,06E-02	3,08E-03	2,14E-03	1,72E-05	-4,29E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,62E-03	3,39E-06	3,62E-07	3,62E-07	1,94E-06	3,26E-05	4,16E-09	-4,93E-06
ADP-fossil <sup>2</sup>	MJ	1,83E+02	1,15E+00	5,21E-01	5,21E-01	6,61E-01	1,26E+00	2,99E-03	-1,24E+01
WDP	m3	1,28E+01	7,35E-02	2,60E-02	2,60E-02	4,21E-02	8,99E-02	3,00E-04	-1,39E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	3,85E+01	1,63E-01	4,60E-02	4,60E-02	9,32E-02	2,60E-01	1,90E-04	-2,84E+00
PERM	MJ	2,15E+01	5,34E-02	1,35E-02	1,35E-02	3,06E-02	3,54E-01	8,84E-05	-5,34E-01
PERT	MJ	6,00E+01	2,16E-01	5,95E-02	5,95E-02	1,24E-01	6,14E-01	2,80E-04	-3,38E+00
PENRE	MJ	2,53E+02	1,47E+00	5,90E-01	5,90E-01	8,44E-01	1,80E+00	3,28E-03	-2,06E+01
PENRM	MJ	1,35E+02	1,40E+01	9,97E+00	9,97E+00	7,99E+00	2,15E+00	1,26E-02	-9,97E+00
PENRT	MJ	3,88E+02	1,54E+01	1,06E+01	1,06E+01	8,83E+00	3,95E+00	1,59E-02	-3,06E+01
SM	kg	1,25E+01	1,55E-02	7,81E-03	7,81E-03	8,87E-03	1,17E+01	5,64E-05	-4,00E+00
RSF	MJ	3,74E-01	4,62E-03	7,40E-04	7,40E-04	2,64E-03	7,98E-03	3,15E-06	-1,22E-01
NRSF	MJ	1,66E+00	1,87E-02	1,19E-03	1,19E-03	1,07E-02	6,04E-03	1,03E-05	4,86E-01
FW	m3	2,80E-01	1,75E-03	6,20E-04	6,20E-04	1,00E-03	2,12E-03	7,12E-06	-3,25E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	5,83E+01	3,39E-01	1,14E-01	1,14E-01	1,94E-01	1,23E+00	1,06E-03	-5,41E+00
NHWD	kg	5,34E+00	7,83E-01	7,81E-03	7,81E-03	4,48E-01	8,89E-02	3,73E-02	-7,51E-01
RWD	kg	3,51E-02	3,10E-04	1,20E-04	1,20E-04	1,70E-04	3,50E-04	2,27E-07	-5,11E-03
CRE	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
EE	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
MFER	kg	9,96E-01	3,54E-03	3,87E-03	3,87E-03	2,03E-03	2,90E-03	1,18E-05	-3,18E-03
MFR	kg	1,33E+00	1,29E-02	4,88E-03	4,88E-03	7,37E-03	1,64E-02	1,84E-05	-2,41E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

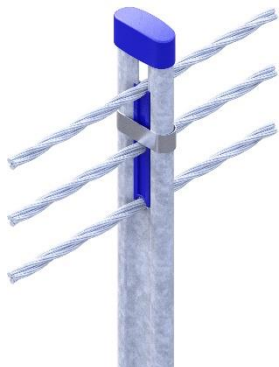
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE 3RC-96 CC2.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-96 utilizes 3 wire ropes and post distance of 2.5 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width Class	W4 (1.2 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.78	57,4%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.54	0 %	0 %
Total	7.36	52,9%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3269		4.44 %
Polypropylene bag	0.0007		< 0.01 %
Total	0.3275		4.45 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,80E+01	6,05E-01	4,65E-01	4,65E-01	3,64E-01	1,57E-01	4,67E-02	-2,03E+00
GWP-fossil	kg CO2 eq.	1,84E+01	6,04E-01	4,64E-01	4,64E-01	3,64E-01	1,66E-01	4,67E-02	-2,00E+00
GWP-biogenic	kg CO2 eq.	-4,29E-01	1,07E-03	3,00E-04	3,00E-04	6,40E-04	-9,23E-03	1,93E-06	-3,36E-02
GWP-luluc	kg CO2 eq.	2,93E-02	2,40E-04	4,78E-05	4,78E-05	1,40E-04	2,10E-04	2,35E-07	-2,70E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,68E+01	5,99E-01	4,61E-01	4,61E-01	3,61E-01	1,63E-01	4,67E-02	-1,96E+00
ODP	kg CFC 11 eq.	9,93E-07	1,41E-07	9,93E-08	9,93E-08	8,49E-08	1,99E-08	7,96E-11	-1,09E-07
AP	mol H+ eq.	7,85E-02	3,06E-03	4,82E-03	4,82E-03	1,84E-03	2,04E-03	7,12E-06	-8,83E-03
EP-freshwater	kg PO43- eq.	5,53E-03	3,95E-05	1,45E-05	1,45E-05	2,38E-05	1,10E-04	7,27E-08	-1,23E-03
EP-marine	kg N eq.	1,85E-02	1,05E-03	2,14E-03	2,14E-03	6,30E-04	4,50E-04	3,50E-06	-1,79E-03
EP-terrestrial	mol N eq.	1,92E-01	1,15E-02	2,34E-02	2,34E-02	6,94E-03	4,99E-03	3,51E-05	-1,79E-02
POCP	kg NMVOC eq.	5,66E-02	3,23E-03	6,37E-03	6,37E-03	1,95E-03	1,35E-03	8,61E-06	-4,93E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,06E-03	2,03E-06	2,17E-07	2,17E-07	1,22E-06	2,06E-05	2,09E-09	-5,57E-06
ADP-fossil <sup>2</sup>	MJ	1,34E+02	6,93E-01	3,13E-01	3,13E-01	4,17E-01	7,94E-01	1,50E-03	-1,44E+01
WDP	m3	7,13E+00	4,41E-02	1,56E-02	1,56E-02	2,65E-02	5,66E-02	1,50E-04	-1,61E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,23E+01	9,77E-02	2,76E-02	2,76E-02	5,88E-02	1,64E-01	9,74E-05	-3,31E+00
PERM	MJ	1,43E+01	3,20E-02	8,07E-03	8,07E-03	1,93E-02	2,23E-01	4,44E-05	-6,19E-01
PERT	MJ	3,65E+01	1,30E-01	3,57E-02	3,57E-02	7,81E-02	3,88E-01	1,40E-04	-3,93E+00
PENRE	MJ	1,72E+02	8,84E-01	3,54E-01	3,54E-01	5,32E-01	1,13E+00	1,65E-03	-2,40E+01
PENRM	MJ	7,38E+01	8,38E+00	5,98E+00	5,98E+00	5,04E+00	1,36E+00	6,33E-03	-1,06E+01
PENRT	MJ	2,46E+02	9,26E+00	6,34E+00	6,34E+00	5,58E+00	2,49E+00	7,98E-03	-3,46E+01
SM	kg	5,17E+00	9,30E-03	4,69E-03	4,69E-03	5,60E-03	7,39E+00	2,83E-05	-4,67E+00
RSF	MJ	2,34E-01	2,77E-03	4,50E-04	4,50E-04	1,67E-03	5,03E-03	1,58E-06	-1,42E-01
NRSF	MJ	1,06E+00	1,12E-02	7,10E-04	7,10E-04	6,77E-03	3,80E-03	5,17E-06	1,87E-01
FW	m3	1,81E-01	1,05E-03	3,70E-04	3,70E-04	6,30E-04	1,34E-03	3,57E-06	-3,76E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,79E+01	2,04E-01	6,87E-02	6,87E-02	1,23E-01	7,78E-01	5,30E-04	-6,29E+00
NHWD	kg	2,82E+00	4,70E-01	4,68E-03	4,68E-03	2,83E-01	5,54E-02	1,87E-02	-8,77E-01
RWD	kg	2,41E-02	1,80E-04	7,29E-05	7,29E-05	1,10E-04	2,20E-04	1,14E-07	-5,96E-03
CRE	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
EE	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
MFER	kg	5,96E-01	2,13E-03	2,32E-03	2,32E-03	1,28E-03	1,81E-03	5,92E-06	-3,69E-03
MFR	kg	8,09E-01	7,73E-03	2,93E-03	2,93E-03	4,65E-03	1,03E-02	9,25E-06	-2,81E-01

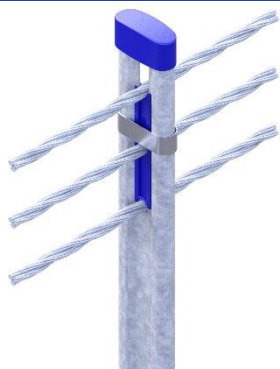
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-96 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-96 utilizes 3 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width Class	W5 (1.6 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.6 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.20	60,5%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.51	0 %	0 %
Total	6.75	55,6%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3152		4.67 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.3158		4.68 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,58E+01	5,38E-01	3,87E-01	3,87E-01	3,34E-01	1,44E-01	4,65E-02	-1,77E+00
GWP-fossil	kg CO2 eq.	1,62E+01	5,37E-01	3,87E-01	3,87E-01	3,34E-01	1,52E-01	4,65E-02	-1,73E+00
GWP-biogenic	kg CO2 eq.	-4,06E-01	9,50E-04	2,50E-04	2,50E-04	5,90E-04	-8,46E-03	1,93E-06	-2,92E-02
GWP-luluc	kg CO2 eq.	2,73E-02	2,10E-04	3,98E-05	3,98E-05	1,30E-04	2,00E-04	2,34E-07	-2,34E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,47E+01	5,33E-01	3,84E-01	3,84E-01	3,31E-01	1,50E-01	4,65E-02	-1,70E+00
ODP	kg CFC 11 eq.	8,71E-07	1,25E-07	8,27E-08	8,27E-08	7,78E-08	1,83E-08	7,94E-11	-9,45E-08
AP	mol H+ eq.	6,96E-02	2,72E-03	4,02E-03	4,02E-03	1,69E-03	1,87E-03	7,09E-06	-7,66E-03
EP-freshwater	kg PO43- eq.	4,87E-03	3,51E-05	1,21E-05	1,21E-05	2,18E-05	1,00E-04	7,25E-08	-1,07E-03
EP-marine	kg N eq.	1,65E-02	9,40E-04	1,78E-03	1,78E-03	5,80E-04	4,10E-04	3,49E-06	-1,55E-03
EP-terrestrial	mol N eq.	1,70E-01	1,03E-02	1,95E-02	1,95E-02	6,36E-03	4,58E-03	3,50E-05	-1,55E-02
POCP	kg NMVOC eq.	5,01E-02	2,88E-03	5,31E-03	5,31E-03	1,79E-03	1,24E-03	8,58E-06	-4,28E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	9,70E-04	1,81E-06	1,81E-07	1,81E-07	1,12E-06	1,89E-05	2,08E-09	-4,85E-06
ADP-fossil <sup>2</sup>	MJ	1,17E+02	6,16E-01	2,61E-01	2,61E-01	3,82E-01	7,28E-01	1,50E-03	-1,25E+01
WDP	m3	6,38E+00	3,92E-02	1,30E-02	1,30E-02	2,43E-02	5,20E-02	1,50E-04	-1,39E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,05E+01	8,69E-02	2,30E-02	2,30E-02	5,39E-02	1,51E-01	9,71E-05	-2,87E+00
PERM	MJ	1,30E+01	2,85E-02	6,73E-03	6,73E-03	1,77E-02	2,05E-01	4,42E-05	-5,37E-01
PERT	MJ	3,35E+01	1,15E-01	2,97E-02	2,97E-02	7,16E-02	3,56E-01	1,40E-04	-3,40E+00
PENRE	MJ	1,53E+02	7,86E-01	2,95E-01	2,95E-01	4,88E-01	1,04E+00	1,64E-03	-2,08E+01
PENRM	MJ	6,48E+01	7,45E+00	4,99E+00	4,99E+00	4,63E+00	1,24E+00	6,31E-03	-9,32E+00
PENRT	MJ	2,17E+02	8,24E+00	5,28E+00	5,28E+00	5,11E+00	2,28E+00	7,95E-03	-3,01E+01
SM	kg	4,90E+00	8,27E-03	3,91E-03	3,91E-03	5,14E-03	6,78E+00	2,82E-05	-4,05E+00
RSF	MJ	2,04E-01	2,46E-03	3,70E-04	3,70E-04	1,53E-03	4,62E-03	1,58E-06	-1,23E-01
NRSF	MJ	9,25E-01	9,99E-03	5,90E-04	5,90E-04	6,21E-03	3,49E-03	5,15E-06	1,99E-01
FW	m3	1,62E-01	9,30E-04	3,10E-04	3,10E-04	5,80E-04	1,23E-03	3,56E-06	-3,26E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,38E+01	1,81E-01	5,72E-02	5,72E-02	1,12E-01	7,14E-01	5,30E-04	-5,45E+00
NHWD	kg	2,51E+00	4,18E-01	3,90E-03	3,90E-03	2,59E-01	5,10E-02	1,87E-02	-7,60E-01
RWD	kg	2,25E-02	1,60E-04	6,07E-05	6,07E-05	1,00E-04	2,00E-04	1,14E-07	-5,16E-03
CRE	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
EE	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
MFER	kg	4,98E-01	1,89E-03	1,93E-03	1,93E-03	1,17E-03	1,66E-03	5,90E-06	-3,20E-03
MFR	kg	6,90E-01	6,87E-03	2,44E-03	2,44E-03	4,27E-03	9,48E-03	9,22E-06	-2,44E-01

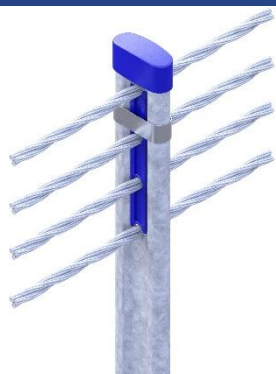
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RC-96 CC2.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-96 utilizes 4 wire ropes and post distance of 2.5 m and conform to EN1317-2



Containment level	H1, N2
Impact severity class	A
Normalized working width Class	W5 (1.5 m), W4 (1.3 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.5 m, 1.3 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.86	62,4%	0 %
Polypropylene	0.04	0 %	0 %
Zinc (from HDG)	0.66	0 %	0 %
Total	8.57	57,3%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4125		4.81 %
Polypropylene bag	0.0007		< 0.01 %
Total	0.4132		4.82 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.21

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,97E+01	6,70E-01	4,65E-01	4,65E-01	4,24E-01	1,83E-01	6,19E-02	-2,34E+00
GWP-fossil	kg CO2 eq.	2,02E+01	6,68E-01	4,64E-01	4,64E-01	4,23E-01	1,94E-01	6,19E-02	-2,29E+00
GWP-biogenic	kg CO2 eq.	-5,26E-01	1,18E-03	3,00E-04	3,00E-04	7,50E-04	-1,07E-02	2,56E-06	-3,86E-02
GWP-luluc	kg CO2 eq.	3,52E-02	2,60E-04	4,78E-05	4,78E-05	1,70E-04	2,50E-04	3,12E-07	-3,10E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,82E+01	6,63E-01	4,61E-01	4,61E-01	4,20E-01	1,90E-01	6,19E-02	-2,25E+00
ODP	kg CFC 11 eq.	1,08E-06	1,56E-07	9,93E-08	9,93E-08	9,88E-08	2,32E-08	1,06E-10	-1,25E-07
AP	mol H+ eq.	8,69E-02	3,38E-03	4,82E-03	4,82E-03	2,14E-03	2,38E-03	9,43E-06	-1,01E-02
EP-freshwater	kg PO43- eq.	6,05E-03	4,37E-05	1,45E-05	1,45E-05	2,77E-05	1,30E-04	9,64E-08	-1,41E-03
EP-marine	kg N eq.	2,06E-02	1,17E-03	2,14E-03	2,14E-03	7,40E-04	5,20E-04	4,64E-06	-2,06E-03
EP-terrestrial	mol N eq.	2,13E-01	1,28E-02	2,34E-02	2,34E-02	8,08E-03	5,82E-03	4,65E-05	-2,05E-02
POCP	kg NMVOC eq.	6,24E-02	3,58E-03	6,37E-03	6,37E-03	2,27E-03	1,57E-03	1,14E-05	-5,66E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,23E-03	2,25E-06	2,17E-07	2,17E-07	1,43E-06	2,40E-05	2,77E-09	-6,42E-06
ADP-fossil <sup>2</sup>	MJ	1,45E+02	7,66E-01	3,13E-01	3,13E-01	4,86E-01	9,25E-01	1,99E-03	-1,66E+01
WDP	m3	8,02E+00	4,88E-02	1,56E-02	1,56E-02	3,09E-02	6,60E-02	2,00E-04	-1,84E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,61E+01	1,08E-01	2,76E-02	2,76E-02	6,85E-02	1,91E-01	1,30E-04	-3,79E+00
PERM	MJ	1,65E+01	3,55E-02	8,07E-03	8,07E-03	2,25E-02	2,60E-01	5,88E-05	-7,10E-01
PERT	MJ	4,27E+01	1,44E-01	3,57E-02	3,57E-02	9,09E-02	4,51E-01	1,90E-04	-4,50E+00
PENRE	MJ	1,91E+02	9,78E-01	3,54E-01	3,54E-01	6,20E-01	1,32E+00	2,18E-03	-2,75E+01
PENRM	MJ	8,06E+01	9,27E+00	5,98E+00	5,98E+00	5,87E+00	1,58E+00	8,39E-03	-1,23E+01
PENRT	MJ	2,71E+02	1,02E+01	6,34E+00	6,34E+00	6,49E+00	2,90E+00	1,06E-02	-3,99E+01
SM	kg	6,36E+00	1,03E-02	4,69E-03	4,69E-03	6,52E-03	8,61E+00	3,75E-05	-5,36E+00
RSF	MJ	2,52E-01	3,07E-03	4,50E-04	4,50E-04	1,94E-03	5,86E-03	2,10E-06	-1,63E-01
NRSF	MJ	1,14E+00	1,24E-02	7,10E-04	7,10E-04	7,88E-03	4,43E-03	6,85E-06	2,66E-01
FW	m3	2,03E-01	1,16E-03	3,70E-04	3,70E-04	7,40E-04	1,56E-03	4,73E-06	-4,31E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,23E+01	2,25E-01	6,87E-02	6,87E-02	1,43E-01	9,06E-01	7,00E-04	-7,22E+00
NHWD	kg	3,14E+00	5,20E-01	4,68E-03	4,68E-03	3,29E-01	6,49E-02	2,48E-02	-1,01E+00
RWD	kg	2,90E-02	2,00E-04	7,29E-05	7,29E-05	1,30E-04	2,60E-04	1,51E-07	-6,83E-03
CRE	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
EE	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
MFER	kg	5,99E-01	2,35E-03	2,32E-03	2,32E-03	1,49E-03	2,12E-03	7,85E-06	-4,24E-03
MFR	kg	8,43E-01	8,55E-03	2,93E-03	2,93E-03	5,42E-03	1,20E-02	1,23E-05	-3,22E-01

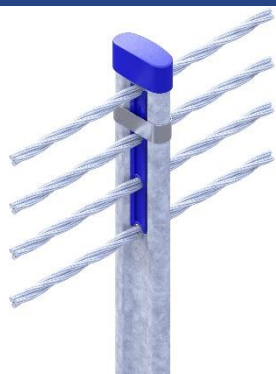
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RC-96 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-96 utilizes 4 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	N2
Impact severity class	A
Normalized working width Class	W5 (1.6 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.6 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.28	65,5%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.63	0 %	0 %
Total	7.95	60,0%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4008		5.04 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.4015		5.05 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,75E+01	6,02E-01	3,87E-01	3,87E-01	3,94E-01	1,69E-01	4,65E-02	-1,89E+00
GWP-fossil	kg CO2 eq.	1,80E+01	6,00E-01	3,87E-01	3,87E-01	3,93E-01	1,78E-01	4,65E-02	-1,85E+00
GWP-biogenic	kg CO2 eq.	-5,02E-01	1,06E-03	2,50E-04	2,50E-04	7,00E-04	-9,97E-03	1,93E-06	-3,12E-02
GWP-luluc	kg CO2 eq.	3,32E-02	2,40E-04	3,98E-05	3,98E-05	1,60E-04	2,30E-04	2,34E-07	-2,51E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,61E+01	5,95E-01	3,84E-01	3,84E-01	3,90E-01	1,75E-01	4,65E-02	-1,82E+00
ODP	kg CFC 11 eq.	9,60E-07	1,40E-07	8,27E-08	8,27E-08	9,17E-08	2,15E-08	7,94E-11	-1,01E-07
AP	mol H+ eq.	7,81E-02	3,04E-03	4,02E-03	4,02E-03	1,99E-03	2,21E-03	7,09E-06	-8,20E-03
EP-freshwater	kg PO43- eq.	5,39E-03	3,93E-05	1,21E-05	1,21E-05	2,57E-05	1,20E-04	7,25E-08	-1,14E-03
EP-marine	kg N eq.	1,85E-02	1,05E-03	1,78E-03	1,78E-03	6,90E-04	4,80E-04	3,49E-06	-1,66E-03
EP-terrestrial	mol N eq.	1,92E-01	1,15E-02	1,95E-02	1,95E-02	7,49E-03	5,39E-03	3,50E-05	-1,66E-02
POCP	kg NMVOC eq.	5,58E-02	3,21E-03	5,31E-03	5,31E-03	2,10E-03	1,46E-03	8,58E-06	-4,58E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,13E-03	2,02E-06	1,81E-07	1,81E-07	1,32E-06	2,22E-05	2,08E-09	-5,18E-06
ADP-fossil <sup>2</sup>	MJ	1,28E+02	6,88E-01	2,61E-01	2,61E-01	4,50E-01	8,57E-01	1,50E-03	-1,34E+01
WDP	m3	7,27E+00	4,38E-02	1,30E-02	1,30E-02	2,87E-02	6,11E-02	1,50E-04	-1,49E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,44E+01	9,71E-02	2,30E-02	2,30E-02	6,35E-02	1,77E-01	9,71E-05	-3,07E+00
PERM	MJ	1,53E+01	3,19E-02	6,73E-03	6,73E-03	2,08E-02	2,41E-01	4,42E-05	-5,74E-01
PERT	MJ	3,97E+01	1,29E-01	2,97E-02	2,97E-02	8,44E-02	4,19E-01	1,40E-04	-3,64E+00
PENRE	MJ	1,71E+02	8,79E-01	2,95E-01	2,95E-01	5,75E-01	1,22E+00	1,64E-03	-2,23E+01
PENRM	MJ	7,15E+01	8,33E+00	4,99E+00	4,99E+00	5,45E+00	1,47E+00	6,31E-03	-9,93E+00
PENRT	MJ	2,43E+02	9,21E+00	5,28E+00	5,28E+00	6,02E+00	2,69E+00	7,95E-03	-3,22E+01
SM	kg	6,09E+00	9,24E-03	3,91E-03	3,91E-03	6,05E-03	7,99E+00	2,82E-05	-4,34E+00
RSF	MJ	2,22E-01	2,75E-03	3,70E-04	3,70E-04	1,80E-03	5,44E-03	1,58E-06	-1,32E-01
NRSF	MJ	1,01E+00	1,12E-02	5,90E-04	5,90E-04	7,31E-03	4,11E-03	5,15E-06	1,93E-01
FW	m3	1,84E-01	1,04E-03	3,10E-04	3,10E-04	6,80E-04	1,44E-03	3,56E-06	-3,49E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,82E+01	2,02E-01	5,72E-02	5,72E-02	1,32E-01	8,41E-01	5,30E-04	-5,84E+00
NHWD	kg	2,82E+00	4,67E-01	3,90E-03	3,90E-03	3,06E-01	5,95E-02	1,87E-02	-8,14E-01
RWD	kg	2,74E-02	1,80E-04	6,07E-05	6,07E-05	1,20E-04	2,40E-04	1,14E-07	-5,53E-03
CRE	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
EE	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
MFER	kg	5,01E-01	2,11E-03	1,93E-03	1,93E-03	1,38E-03	1,94E-03	5,90E-06	-3,43E-03
MFR	kg	7,24E-01	7,68E-03	2,44E-03	2,44E-03	5,03E-03	1,11E-02	9,22E-06	-2,61E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

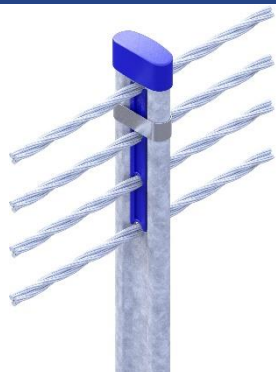
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE BL-4-C CC1.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
 SAFENCE BL-4-C utilizes 4 wire ropes and post distance of 1.5 m and conform to EN1317-2



Containment level	H2
Impact severity class	A
Normalized working width Class	W5 (1.7 m)
Normalized vehicle intrusion class	VI7 (2.5 m)
Normalized dynamic deflection	1.7 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	10.18	53,8%	0 %
Polypropylene	0.06	0 %	0 %
Zinc (from HDG)	0.79	0 %	0 %
Total	11.03	49,7%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4592		4.16 %
Polypropylene bag	0.0012		< 0.01 %
Total	0.4604		4.17 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.23

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,84E+01	9,41E-01	7,75E-01	7,75E-01	5,46E-01	2,37E-01	9,31E-02	-3,25E+00
GWP-fossil	kg CO2 eq.	2,89E+01	9,39E-01	7,74E-01	7,74E-01	5,45E-01	2,51E-01	9,31E-02	-3,19E+00
GWP-biogenic	kg CO2 eq.	-6,18E-01	1,66E-03	5,00E-04	5,00E-04	9,60E-04	-1,38E-02	3,86E-06	-5,37E-02
GWP-luluc	kg CO2 eq.	4,29E-02	3,70E-04	7,97E-05	7,97E-05	2,20E-04	3,20E-04	4,69E-07	-4,32E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,67E+01	9,31E-01	7,68E-01	7,68E-01	5,40E-01	2,46E-01	9,30E-02	-3,13E+00
ODP	kg CFC 11 eq.	1,57E-06	2,19E-07	1,65E-07	1,65E-07	1,27E-07	2,99E-08	1,59E-10	-1,74E-07
AP	mol H+ eq.	1,22E-01	4,75E-03	8,04E-03	8,04E-03	2,76E-03	3,06E-03	1,42E-05	-1,41E-02
EP-freshwater	kg PO43- eq.	8,70E-03	6,14E-05	2,42E-05	2,42E-05	3,57E-05	1,70E-04	1,45E-07	-1,97E-03
EP-marine	kg N eq.	2,89E-02	1,64E-03	3,56E-03	3,56E-03	9,50E-04	6,70E-04	6,98E-06	-2,86E-03
EP-terrestrial	mol N eq.	2,98E-01	1,79E-02	3,90E-02	3,90E-02	1,04E-02	7,49E-03	7,00E-05	-2,86E-02
POCP	kg NMVOC eq.	8,86E-02	5,03E-03	1,06E-02	1,06E-02	2,92E-03	2,02E-03	1,72E-05	-7,89E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,61E-03	3,16E-06	3,62E-07	3,62E-07	1,84E-06	3,08E-05	4,16E-09	-8,95E-06
ADP-fossil <sup>2</sup>	MJ	2,12E+02	1,08E+00	5,21E-01	5,21E-01	6,25E-01	1,19E+00	2,99E-03	-2,30E+01
WDP	m3	1,10E+01	6,85E-02	2,60E-02	2,60E-02	3,98E-02	8,51E-02	3,00E-04	-2,57E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	3,33E+01	1,52E-01	4,60E-02	4,60E-02	8,81E-02	2,46E-01	1,90E-04	-5,28E+00
PERM	MJ	2,15E+01	4,98E-02	1,35E-02	1,35E-02	2,89E-02	3,35E-01	8,84E-05	-9,89E-01
PERT	MJ	5,48E+01	2,02E-01	5,95E-02	5,95E-02	1,17E-01	5,81E-01	2,80E-04	-6,27E+00
PENRE	MJ	2,68E+02	1,37E+00	5,90E-01	5,90E-01	7,98E-01	1,70E+00	3,28E-03	-3,83E+01
PENRM	MJ	1,17E+02	1,30E+01	9,97E+00	9,97E+00	7,56E+00	2,03E+00	1,26E-02	-1,73E+01
PENRT	MJ	3,85E+02	1,44E+01	1,06E+01	1,06E+01	8,36E+00	3,74E+00	1,59E-02	-5,56E+01
SM	kg	7,42E+00	1,45E-02	7,81E-03	7,81E-03	8,39E-03	1,11E+01	5,64E-05	-7,46E+00
RSF	MJ	3,72E-01	4,31E-03	7,40E-04	7,40E-04	2,50E-03	7,55E-03	3,15E-06	-2,27E-01
NRSF	MJ	1,68E+00	1,75E-02	1,19E-03	1,19E-03	1,01E-02	5,71E-03	1,03E-05	4,12E-01
FW	m3	2,79E-01	1,63E-03	6,20E-04	6,20E-04	9,50E-04	2,01E-03	7,12E-06	-6,01E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	5,89E+01	3,16E-01	1,14E-01	1,14E-01	1,84E-01	1,17E+00	1,06E-03	-1,00E+01
NHWD	kg	4,39E+00	7,30E-01	7,81E-03	7,81E-03	4,24E-01	8,45E-02	3,73E-02	-1,40E+00
RWD	kg	3,52E-02	2,80E-04	1,20E-04	1,20E-04	1,70E-04	3,30E-04	2,27E-07	-9,51E-03
CRE	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
EE	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
MFER	kg	9,91E-01	3,31E-03	3,87E-03	3,87E-03	1,92E-03	2,76E-03	1,18E-05	-5,90E-03
MFR	kg	1,32E+00	1,20E-02	4,88E-03	4,88E-03	6,97E-03	1,55E-02	1,84E-05	-4,49E-01

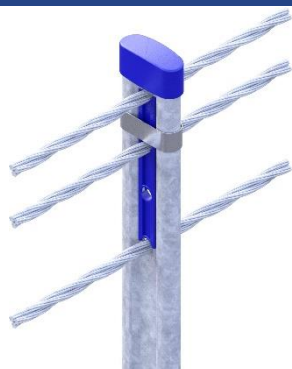
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-06 CC2.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-06 utilizes 3 wire ropes and post distance of 2.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	1.2 m, 1.2 m
Dynamic deflection	1.2 m, 1.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.96	52,5%	0 %
Polypropylene	0.05	0 %	0 %
Zinc (from HDG)	0.60	0 %	0 %
Total	8.61	48,5%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3569		4.15 %
Polypropylene bag	0.0008		< 0.01 %
Total	0.3577		4.15 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.18

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,30E+01	7,44E-01	5,81E-01	5,81E-01	4,27E-01	1,86E-01	7,73E-02	-2,58E+00
GWP-fossil	kg CO2 eq.	2,33E+01	7,42E-01	5,80E-01	5,80E-01	4,26E-01	1,96E-01	7,73E-02	-2,54E+00
GWP-biogenic	kg CO2 eq.	-4,23E-01	1,31E-03	3,80E-04	3,80E-04	7,50E-04	-1,08E-02	3,20E-06	-4,26E-02
GWP-luluc	kg CO2 eq.	3,38E-02	2,90E-04	5,97E-05	5,97E-05	1,70E-04	2,50E-04	3,89E-07	-3,42E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,16E+01	7,36E-01	5,76E-01	5,76E-01	4,22E-01	1,93E-01	7,72E-02	-2,49E+00
ODP	kg CFC 11 eq.	1,32E-06	1,73E-07	1,24E-07	1,24E-07	9,94E-08	2,33E-08	1,32E-10	-1,38E-07
AP	mol H+ eq.	9,96E-02	3,76E-03	6,03E-03	6,03E-03	2,16E-03	2,39E-03	1,18E-05	-1,12E-02
EP-freshwater	kg PO43- eq.	7,30E-03	4,85E-05	1,82E-05	1,82E-05	2,79E-05	1,30E-04	1,20E-07	-1,56E-03
EP-marine	kg N eq.	2,36E-02	1,30E-03	2,67E-03	2,67E-03	7,40E-04	5,30E-04	5,79E-06	-2,27E-03
EP-terrestrial	mol N eq.	2,41E-01	1,42E-02	2,93E-02	2,93E-02	8,12E-03	5,85E-03	5,81E-05	-2,27E-02
POCP	kg NMVOC eq.	7,25E-02	3,97E-03	7,96E-03	7,96E-03	2,28E-03	1,58E-03	1,42E-05	-6,26E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,26E-03	2,50E-06	2,71E-07	2,71E-07	1,43E-06	2,41E-05	3,45E-09	-7,11E-06
ADP-fossil <sup>2</sup>	MJ	1,72E+02	8,51E-01	3,91E-01	3,91E-01	4,88E-01	9,32E-01	2,48E-03	-1,83E+01
WDP	m3	9,06E+00	5,41E-02	1,95E-02	1,95E-02	3,11E-02	6,65E-02	2,40E-04	-2,04E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,66E+01	1,20E-01	3,45E-02	3,45E-02	6,89E-02	1,92E-01	1,60E-04	-4,19E+00
PERM	MJ	1,68E+01	3,94E-02	1,01E-02	1,01E-02	2,26E-02	2,61E-01	7,34E-05	-7,84E-01
PERT	MJ	4,35E+01	1,59E-01	4,46E-02	4,46E-02	9,15E-02	4,54E-01	2,30E-04	-4,97E+00
PENRE	MJ	2,17E+02	1,09E+00	4,42E-01	4,42E-01	6,24E-01	1,33E+00	2,72E-03	-3,04E+01
PENRM	MJ	9,76E+01	1,03E+01	7,48E+00	7,48E+00	5,91E+00	1,59E+00	1,05E-02	-1,38E+01
PENRT	MJ	3,15E+02	1,14E+01	7,92E+00	7,92E+00	6,53E+00	2,92E+00	1,32E-02	-4,41E+01
SM	kg	5,85E+00	1,14E-02	5,86E-03	5,86E-03	6,56E-03	8,65E+00	4,68E-05	-5,92E+00
RSF	MJ	3,18E-01	3,40E-03	5,60E-04	5,60E-04	1,95E-03	5,90E-03	2,62E-06	-1,80E-01
NRSF	MJ	1,36E+00	1,38E-02	8,90E-04	8,90E-04	7,93E-03	4,46E-03	8,55E-06	3,48E-01
FW	m3	2,29E-01	1,29E-03	4,60E-04	4,60E-04	7,40E-04	1,57E-03	5,91E-06	-4,77E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,83E+01	2,50E-01	8,58E-02	8,58E-02	1,44E-01	9,10E-01	8,80E-04	-7,97E+00
NHWD	kg	3,66E+00	5,77E-01	5,86E-03	5,86E-03	3,31E-01	6,62E-02	3,10E-02	-1,11E+00
RWD	kg	2,82E-02	2,30E-04	9,11E-05	9,11E-05	1,30E-04	2,60E-04	1,89E-07	-7,54E-03
CRE	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
EE	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
MFER	kg	9,06E-01	2,61E-03	2,90E-03	2,90E-03	1,50E-03	2,16E-03	9,80E-06	-4,68E-03
MFR	kg	1,16E+00	9,49E-03	3,66E-03	3,66E-03	5,45E-03	1,21E-02	1,53E-05	-3,56E-01

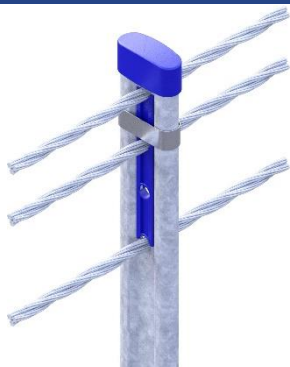
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-06 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-06 utilizes 3 wire ropes and post distance of 3.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	1.7 m, 1.7 m
Dynamic deflection	1.2 m, 1.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.40	59,3%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.52	0 %	0 %
Total	6.96	54,6%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3235		4.65 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.3241		4.66 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,70E+01	5,61E-01	3,87E-01	3,87E-01	3,45E-01	1,48E-01	4,65E-02	-1,85E+00
GWP-fossil	kg CO2 eq.	1,73E+01	5,60E-01	3,87E-01	3,87E-01	3,44E-01	1,57E-01	4,65E-02	-1,82E+00
GWP-biogenic	kg CO2 eq.	-3,79E-01	9,90E-04	2,50E-04	2,50E-04	6,10E-04	-8,72E-03	1,93E-06	-3,06E-02
GWP-luluc	kg CO2 eq.	2,84E-02	2,20E-04	3,98E-05	3,98E-05	1,40E-04	2,00E-04	2,34E-07	-2,46E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,58E+01	5,55E-01	3,84E-01	3,84E-01	3,41E-01	1,54E-01	4,65E-02	-1,78E+00
ODP	kg CFC 11 eq.	9,65E-07	1,31E-07	8,27E-08	8,27E-08	8,02E-08	1,88E-08	7,94E-11	-9,92E-08
AP	mol H+ eq.	7,48E-02	2,83E-03	4,02E-03	4,02E-03	1,74E-03	1,93E-03	7,09E-06	-8,04E-03
EP-freshwater	kg PO43- eq.	5,38E-03	3,66E-05	1,21E-05	1,21E-05	2,25E-05	1,10E-04	7,25E-08	-1,12E-03
EP-marine	kg N eq.	1,77E-02	9,80E-04	1,78E-03	1,78E-03	6,00E-04	4,20E-04	3,49E-06	-1,63E-03
EP-terrestrial	mol N eq.	1,83E-01	1,07E-02	1,95E-02	1,95E-02	6,56E-03	4,72E-03	3,50E-05	-1,63E-02
POCP	kg NMVOC eq.	5,41E-02	3,00E-03	5,31E-03	5,31E-03	1,84E-03	1,28E-03	8,58E-06	-4,49E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,00E-03	1,89E-06	1,81E-07	1,81E-07	1,16E-06	1,95E-05	2,08E-09	-5,08E-06
ADP-fossil <sup>2</sup>	MJ	1,26E+02	6,42E-01	2,61E-01	2,61E-01	3,94E-01	7,51E-01	1,50E-03	-1,31E+01
WDP	m3	6,92E+00	4,09E-02	1,30E-02	1,30E-02	2,51E-02	5,36E-02	1,50E-04	-1,46E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,16E+01	9,05E-02	2,30E-02	2,30E-02	5,56E-02	1,55E-01	9,71E-05	-3,01E+00
PERM	MJ	1,35E+01	2,97E-02	6,73E-03	6,73E-03	1,82E-02	2,11E-01	4,42E-05	-5,63E-01
PERT	MJ	3,51E+01	1,20E-01	2,97E-02	2,97E-02	7,39E-02	3,67E-01	1,40E-04	-3,57E+00
PENRE	MJ	1,63E+02	8,20E-01	2,95E-01	2,95E-01	5,04E-01	1,07E+00	1,64E-03	-2,18E+01
PENRM	MJ	7,16E+01	7,76E+00	4,99E+00	4,99E+00	4,77E+00	1,28E+00	6,31E-03	-9,76E+00
PENRT	MJ	2,35E+02	8,58E+00	5,28E+00	5,28E+00	5,27E+00	2,36E+00	7,95E-03	-3,16E+01
SM	kg	5,09E+00	8,62E-03	3,91E-03	3,91E-03	5,30E-03	6,99E+00	2,82E-05	-4,25E+00
RSF	MJ	2,30E-01	2,57E-03	3,70E-04	3,70E-04	1,58E-03	4,76E-03	1,58E-06	-1,30E-01
NRSF	MJ	9,95E-01	1,04E-02	5,90E-04	5,90E-04	6,40E-03	3,60E-03	5,15E-06	1,95E-01
FW	m3	1,75E-01	9,70E-04	3,10E-04	3,10E-04	6,00E-04	1,26E-03	3,56E-06	-3,42E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,65E+01	1,89E-01	5,72E-02	5,72E-02	1,16E-01	7,36E-01	5,30E-04	-5,73E+00
NHWD	kg	2,75E+00	4,36E-01	3,90E-03	3,90E-03	2,68E-01	5,25E-02	1,87E-02	-7,98E-01
RWD	kg	2,38E-02	1,70E-04	6,07E-05	6,07E-05	1,00E-04	2,10E-04	1,14E-07	-5,42E-03
CRE	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
EE	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
MFER	kg	6,07E-01	1,97E-03	1,93E-03	1,93E-03	1,21E-03	1,71E-03	5,90E-06	-3,36E-03
MFR	kg	8,09E-01	7,16E-03	2,44E-03	2,44E-03	4,40E-03	9,77E-03	9,22E-06	-2,56E-01

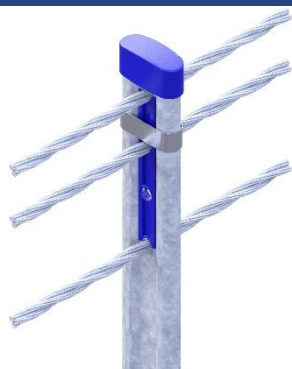
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-06 CC4.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-06 utilizes 3 wire ropes and post distance of 4.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	2.1 m, 2.1 m
Dynamic deflection	2.1 m, 2.1 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	5.62	64,2%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.48	0 %	0 %
Total	6.13	58,9%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3069		5.01 %
Polypropylene bag	0.0004		< 0.01 %
Total	0.3073		5.01 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.15

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,40E+01	4,70E-01	2,90E-01	2,90E-01	3,04E-01	1,30E-01	3,10E-02	-1,49E+00
GWP-fossil	kg CO2 eq.	1,43E+01	4,69E-01	2,90E-01	2,90E-01	3,03E-01	1,37E-01	3,10E-02	-1,46E+00
GWP-biogenic	kg CO2 eq.	-3,57E-01	8,30E-04	1,90E-04	1,90E-04	5,40E-04	-7,69E-03	1,29E-06	-2,46E-02
GWP-luluc	kg CO2 eq.	2,58E-02	1,90E-04	2,99E-05	2,99E-05	1,20E-04	1,80E-04	1,56E-07	-1,98E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,28E+01	4,65E-01	2,88E-01	2,88E-01	3,00E-01	1,35E-01	3,10E-02	-1,43E+00
ODP	kg CFC 11 eq.	7,89E-07	1,10E-07	6,20E-08	6,20E-08	7,07E-08	1,66E-08	5,29E-11	-7,97E-08
AP	mol H+ eq.	6,24E-02	2,38E-03	3,02E-03	3,02E-03	1,53E-03	1,70E-03	4,73E-06	-6,45E-03
EP-freshwater	kg PO43- eq.	4,43E-03	3,07E-05	9,08E-06	9,08E-06	1,98E-05	9,53E-05	4,83E-08	-9,00E-04
EP-marine	kg N eq.	1,48E-02	8,20E-04	1,34E-03	1,34E-03	5,30E-04	3,70E-04	2,33E-06	-1,31E-03
EP-terrestrial	mol N eq.	1,53E-01	8,95E-03	1,46E-02	1,46E-02	5,78E-03	4,16E-03	2,33E-05	-1,31E-02
POCP	kg NMVOC eq.	4,49E-02	2,51E-03	3,98E-03	3,98E-03	1,62E-03	1,12E-03	5,72E-06	-3,60E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	8,70E-04	1,58E-06	1,36E-07	1,36E-07	1,02E-06	1,72E-05	1,39E-09	-4,07E-06
ADP-fossil <sup>2</sup>	MJ	1,02E+02	5,38E-01	1,96E-01	1,96E-01	3,47E-01	6,60E-01	1,00E-03	-1,05E+01
WDP	m3	5,85E+00	3,43E-02	9,74E-03	9,74E-03	2,21E-02	4,70E-02	9,84E-05	-1,17E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	1,91E+01	7,59E-02	1,73E-02	1,73E-02	4,90E-02	1,37E-01	6,47E-05	-2,42E+00
PERM	MJ	1,18E+01	2,49E-02	5,05E-03	5,05E-03	1,61E-02	1,86E-01	2,95E-05	-4,52E-01
PERT	MJ	3,09E+01	1,01E-01	2,23E-02	2,23E-02	6,50E-02	3,23E-01	9,42E-05	-2,87E+00
PENRE	MJ	1,37E+02	6,87E-01	2,21E-01	2,21E-01	4,43E-01	9,42E-01	1,09E-03	-1,75E+01
PENRM	MJ	5,86E+01	6,51E+00	3,74E+00	3,74E+00	4,20E+00	1,13E+00	4,21E-03	-7,74E+00
PENRT	MJ	1,95E+02	7,20E+00	3,96E+00	3,96E+00	4,64E+00	2,07E+00	5,30E-03	-2,53E+01
SM	kg	4,71E+00	7,23E-03	2,93E-03	2,93E-03	4,66E-03	6,16E+00	1,88E-05	-3,42E+00
RSF	MJ	1,85E-01	2,15E-03	2,80E-04	2,80E-04	1,39E-03	4,19E-03	1,05E-06	-1,04E-01
NRSF	MJ	8,11E-01	8,73E-03	4,50E-04	4,50E-04	5,64E-03	3,16E-03	3,43E-06	1,17E-01
FW	m3	1,48E-01	8,20E-04	2,30E-04	2,30E-04	5,30E-04	1,11E-03	2,37E-06	-2,75E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,07E+01	1,58E-01	4,29E-02	4,29E-02	1,02E-01	6,48E-01	3,50E-04	-4,60E+00
NHWD	kg	2,30E+00	3,65E-01	2,93E-03	2,93E-03	2,36E-01	4,56E-02	1,24E-02	-6,41E-01
RWD	kg	2,15E-02	1,40E-04	4,55E-05	4,55E-05	9,19E-05	1,80E-04	7,58E-08	-4,35E-03
CRE	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
EE	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
MFER	kg	4,57E-01	1,65E-03	1,45E-03	1,45E-03	1,07E-03	1,49E-03	3,94E-06	-2,70E-03
MFR	kg	6,31E-01	6,00E-03	1,83E-03	1,83E-03	3,87E-03	8,58E-03	6,14E-06	-2,06E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

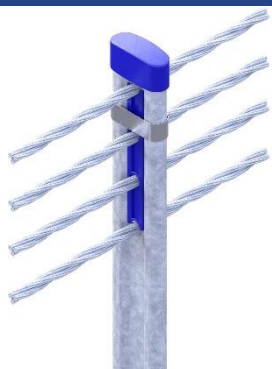
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE 4RC-06 CC2.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-06 utilizes 4 wire ropes and post distance of 2.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	1.2 m, 1.2 m
Dynamic deflection	1.2 m, 1.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	9.06	57,3%	0 %
Polypropylene	0.05	0 %	0 %
Zinc (from HDG)	0.72	0 %	0 %
Total	9.83	52,8%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4425		4.50 %
Polypropylene bag	0.0009		< 0.01 %
Total	0.4434		4.51 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.22

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,46E+01	8,09E-01	5,81E-01	5,81E-01	4,87E-01	2,11E-01	7,74E-02	-2,71E+00
GWP-fossil	kg CO2 eq.	2,51E+01	8,07E-01	5,80E-01	5,80E-01	4,86E-01	2,23E-01	7,74E-02	-2,67E+00
GWP-biogenic	kg CO2 eq.	-5,20E-01	1,43E-03	3,80E-04	3,80E-04	8,60E-04	-1,23E-02	3,21E-06	-4,48E-02
GWP-luluc	kg CO2 eq.	3,97E-02	3,20E-04	5,97E-05	5,97E-05	1,90E-04	2,90E-04	3,90E-07	-3,60E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,30E+01	8,00E-01	5,76E-01	5,76E-01	4,82E-01	2,19E-01	7,74E-02	-2,61E+00
ODP	kg CFC 11 eq.	1,40E-06	1,88E-07	1,24E-07	1,24E-07	1,13E-07	2,66E-08	1,32E-10	-1,45E-07
AP	mol H+ eq.	1,08E-01	4,09E-03	6,03E-03	6,03E-03	2,46E-03	2,73E-03	1,18E-05	-1,18E-02
EP-freshwater	kg PO43- eq.	7,82E-03	5,28E-05	1,82E-05	1,82E-05	3,18E-05	1,50E-04	1,21E-07	-1,64E-03
EP-marine	kg N eq.	2,56E-02	1,41E-03	2,67E-03	2,67E-03	8,50E-04	6,00E-04	5,81E-06	-2,39E-03
EP-terrestrial	mol N eq.	2,63E-01	1,54E-02	2,93E-02	2,93E-02	9,26E-03	6,67E-03	5,82E-05	-2,38E-02
POCP	kg NMVOC eq.	7,83E-02	4,32E-03	7,96E-03	7,96E-03	2,60E-03	1,80E-03	1,43E-05	-6,58E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,42E-03	2,72E-06	2,71E-07	2,71E-07	1,64E-06	2,75E-05	3,46E-09	-7,47E-06
ADP-fossil <sup>2</sup>	MJ	1,83E+02	9,26E-01	3,91E-01	3,91E-01	5,57E-01	1,06E+00	2,49E-03	-1,92E+01
WDP	m3	9,94E+00	5,89E-02	1,95E-02	1,95E-02	3,55E-02	7,58E-02	2,50E-04	-2,14E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	3,05E+01	1,31E-01	3,45E-02	3,45E-02	7,85E-02	2,20E-01	1,60E-04	-4,40E+00
PERM	MJ	1,91E+01	4,28E-02	1,01E-02	1,01E-02	2,58E-02	2,98E-01	7,36E-05	-8,25E-01
PERT	MJ	4,96E+01	1,73E-01	4,46E-02	4,46E-02	1,04E-01	5,18E-01	2,40E-04	-5,23E+00
PENRE	MJ	2,36E+02	1,18E+00	4,42E-01	4,42E-01	7,11E-01	1,52E+00	2,73E-03	-3,19E+01
PENRM	MJ	1,04E+02	1,12E+01	7,48E+00	7,48E+00	6,74E+00	1,81E+00	1,05E-02	-1,44E+01
PENRT	MJ	3,40E+02	1,24E+01	7,92E+00	7,92E+00	7,45E+00	3,33E+00	1,32E-02	-4,64E+01
SM	kg	7,04E+00	1,24E-02	5,86E-03	5,86E-03	7,48E-03	9,87E+00	4,69E-05	-6,22E+00
RSF	MJ	3,36E-01	3,70E-03	5,60E-04	5,60E-04	2,23E-03	6,73E-03	2,62E-06	-1,90E-01
NRSF	MJ	1,45E+00	1,50E-02	8,90E-04	8,90E-04	9,04E-03	5,09E-03	8,57E-06	3,42E-01
FW	m3	2,51E-01	1,40E-03	4,60E-04	4,60E-04	8,40E-04	1,79E-03	5,92E-06	-5,01E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	5,26E+01	2,72E-01	8,58E-02	8,58E-02	1,64E-01	1,04E+00	8,80E-04	-8,38E+00
NHWD	kg	3,97E+00	6,28E-01	5,86E-03	5,86E-03	3,78E-01	7,49E-02	3,10E-02	-1,17E+00
RWD	kg	3,32E-02	2,40E-04	9,11E-05	9,11E-05	1,50E-04	2,90E-04	1,89E-07	-7,93E-03
CRE	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
EE	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
MFER	kg	9,09E-01	2,84E-03	2,90E-03	2,90E-03	1,71E-03	2,44E-03	9,82E-06	-4,92E-03
MFR	kg	1,20E+00	1,03E-02	3,66E-03	3,66E-03	6,21E-03	1,38E-02	1,53E-05	-3,74E-01

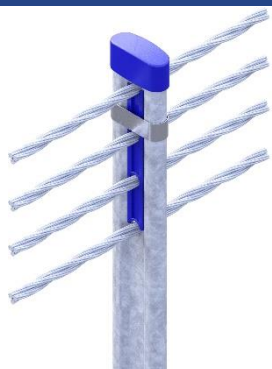
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RC-06 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-06 utilizes 4 wire ropes and post distance of 3.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	1.7 m, 1.7 m
Dynamic deflection	1.7 m, 1.7 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.50	64,2%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.64	0 %	0 %
Total	8.17	58,9%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4092		5.01 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.4098		5.02 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,86E+01	6,27E-01	3,87E-01	3,87E-01	4,05E-01	1,73E-01	4,65E-02	-1,98E+00
GWP-fossil	kg CO2 eq.	1,91E+01	6,25E-01	3,87E-01	3,87E-01	4,04E-01	1,83E-01	4,65E-02	-1,95E+00
GWP-biogenic	kg CO2 eq.	-4,76E-01	1,11E-03	2,50E-04	2,50E-04	7,10E-04	-1,03E-02	1,93E-06	-3,27E-02
GWP-luluc	kg CO2 eq.	3,43E-02	2,50E-04	3,98E-05	3,98E-05	1,60E-04	2,40E-04	2,34E-07	-2,63E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,71E+01	6,20E-01	3,84E-01	3,84E-01	4,00E-01	1,80E-01	4,65E-02	-1,91E+00
ODP	kg CFC 11 eq.	1,05E-06	1,46E-07	8,27E-08	8,27E-08	9,42E-08	2,21E-08	7,94E-11	-1,06E-07
AP	mol H+ eq.	8,33E-02	3,17E-03	4,02E-03	4,02E-03	2,04E-03	2,27E-03	7,09E-06	-8,60E-03
EP-freshwater	kg PO43- eq.	5,90E-03	4,09E-05	1,21E-05	1,21E-05	2,64E-05	1,30E-04	7,25E-08	-1,20E-03
EP-marine	kg N eq.	1,98E-02	1,09E-03	1,78E-03	1,78E-03	7,00E-04	5,00E-04	3,49E-06	-1,74E-03
EP-terrestrial	mol N eq.	2,04E-01	1,19E-02	1,95E-02	1,95E-02	7,70E-03	5,54E-03	3,50E-05	-1,74E-02
POCP	kg NMVOC eq.	5,99E-02	3,35E-03	5,31E-03	5,31E-03	2,16E-03	1,50E-03	8,58E-06	-4,80E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,17E-03	2,11E-06	1,81E-07	1,81E-07	1,36E-06	2,29E-05	2,08E-09	-5,43E-06
ADP-fossil <sup>2</sup>	MJ	1,36E+02	7,17E-01	2,61E-01	2,61E-01	4,63E-01	8,80E-01	1,50E-03	-1,40E+01
WDP	m3	7,80E+00	4,56E-02	1,30E-02	1,30E-02	2,95E-02	6,28E-02	1,50E-04	-1,57E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,55E+01	1,01E-01	2,30E-02	2,30E-02	6,53E-02	1,82E-01	9,71E-05	-3,22E+00
PERM	MJ	1,57E+01	3,32E-02	6,73E-03	6,73E-03	2,14E-02	2,48E-01	4,42E-05	-6,03E-01
PERT	MJ	4,12E+01	1,34E-01	2,97E-02	2,97E-02	8,67E-02	4,30E-01	1,40E-04	-3,82E+00
PENRE	MJ	1,82E+02	9,15E-01	2,95E-01	2,95E-01	5,91E-01	1,26E+00	1,64E-03	-2,33E+01
PENRM	MJ	7,81E+01	8,67E+00	4,99E+00	4,99E+00	5,60E+00	1,51E+00	6,31E-03	-1,04E+01
PENRT	MJ	2,60E+02	9,59E+00	5,28E+00	5,28E+00	6,19E+00	2,76E+00	7,95E-03	-3,37E+01
SM	kg	6,28E+00	9,63E-03	3,91E-03	3,91E-03	6,22E-03	8,21E+00	2,82E-05	-4,55E+00
RSF	MJ	2,47E-01	2,87E-03	3,70E-04	3,70E-04	1,85E-03	5,59E-03	1,58E-06	-1,39E-01
NRSF	MJ	1,08E+00	1,16E-02	5,90E-04	5,90E-04	7,51E-03	4,22E-03	5,15E-06	1,89E-01
FW	m3	1,97E-01	1,09E-03	3,10E-04	3,10E-04	7,00E-04	1,48E-03	3,56E-06	-3,66E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,09E+01	2,11E-01	5,72E-02	5,72E-02	1,36E-01	8,64E-01	5,30E-04	-6,13E+00
NHWD	kg	3,07E+00	4,86E-01	3,90E-03	3,90E-03	3,14E-01	6,11E-02	1,87E-02	-8,54E-01
RWD	kg	2,87E-02	1,90E-04	6,07E-05	6,07E-05	1,20E-04	2,40E-04	1,14E-07	-5,80E-03
CRE	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
EE	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
MFER	kg	6,09E-01	2,20E-03	1,93E-03	1,93E-03	1,42E-03	1,99E-03	5,90E-06	-3,59E-03
MFR	kg	8,42E-01	8,00E-03	2,44E-03	2,44E-03	5,16E-03	1,15E-02	9,22E-06	-2,74E-01

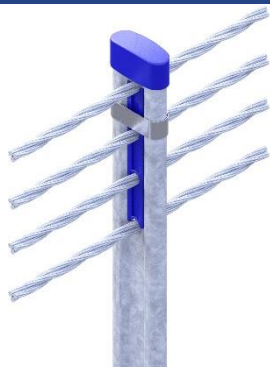
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RC-06 CC4.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-06 utilizes 4 wire ropes and post distance of 4.0 m and conform to NCHRP350



Containment level	TL4, TL3
ASI	0.55
THIV	5.8 m/s
Working width	2.1 m, 2.1 m
Dynamic deflection	2.1 m, 2.1 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.72	68,8%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.60	0 %	0 %
Total	7.35	62,9%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3925		5.34 %
Polypropylene bag	0.0005		< 0.01 %
Total	0.3930		5.35 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,56E+01	5,35E-01	2,90E-01	2,90E-01	3,63E-01	1,54E-01	3,12E-02	-1,61E+00
GWP-fossil	kg CO2 eq.	1,60E+01	5,34E-01	2,90E-01	2,90E-01	3,63E-01	1,63E-01	3,12E-02	-1,58E+00
GWP-biogenic	kg CO2 eq.	-4,53E-01	9,40E-04	1,90E-04	1,90E-04	6,40E-04	-9,21E-03	1,29E-06	-2,67E-02
GWP-luluc	kg CO2 eq.	3,17E-02	2,10E-04	2,99E-05	2,99E-05	1,40E-04	2,10E-04	1,57E-07	-2,15E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,42E+01	5,29E-01	2,88E-01	2,88E-01	3,60E-01	1,61E-01	3,12E-02	-1,55E+00
ODP	kg CFC 11 eq.	8,77E-07	1,25E-07	6,20E-08	6,20E-08	8,46E-08	1,99E-08	5,32E-11	-8,66E-08
AP	mol H+ eq.	7,09E-02	2,70E-03	3,02E-03	3,02E-03	1,84E-03	2,04E-03	4,75E-06	-7,01E-03
EP-freshwater	kg PO43- eq.	4,94E-03	3,49E-05	9,08E-06	9,08E-06	2,37E-05	1,10E-04	4,86E-08	-9,80E-04
EP-marine	kg N eq.	1,69E-02	9,30E-04	1,34E-03	1,34E-03	6,30E-04	4,50E-04	2,34E-06	-1,42E-03
EP-terrestrial	mol N eq.	1,75E-01	1,02E-02	1,46E-02	1,46E-02	6,92E-03	4,98E-03	2,34E-05	-1,42E-02
POCP	kg NMVOC eq.	5,07E-02	2,86E-03	3,98E-03	3,98E-03	1,94E-03	1,35E-03	5,75E-06	-3,91E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,04E-03	1,80E-06	1,36E-07	1,36E-07	1,22E-06	2,05E-05	1,39E-09	-4,41E-06
ADP-fossil <sup>2</sup>	MJ	1,13E+02	6,12E-01	1,96E-01	1,96E-01	4,16E-01	7,89E-01	1,00E-03	-1,15E+01
WDP	m3	6,74E+00	3,90E-02	9,74E-03	9,74E-03	2,65E-02	5,62E-02	9,88E-05	-1,28E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,30E+01	8,63E-02	1,73E-02	1,73E-02	5,86E-02	1,63E-01	6,51E-05	-2,63E+00
PERM	MJ	1,41E+01	2,83E-02	5,05E-03	5,05E-03	1,92E-02	2,23E-01	2,96E-05	-4,91E-01
PERT	MJ	3,71E+01	1,15E-01	2,23E-02	2,23E-02	7,79E-02	3,86E-01	9,47E-05	-3,12E+00
PENRE	MJ	1,55E+02	7,81E-01	2,21E-01	2,21E-01	5,31E-01	1,13E+00	1,10E-03	-1,90E+01
PENRM	MJ	6,51E+01	7,40E+00	3,74E+00	3,74E+00	5,03E+00	1,35E+00	4,23E-03	-8,37E+00
PENRT	MJ	2,20E+02	8,18E+00	3,96E+00	3,96E+00	5,56E+00	2,48E+00	5,33E-03	-2,74E+01
SM	kg	5,90E+00	8,22E-03	2,93E-03	2,93E-03	5,58E-03	7,37E+00	1,89E-05	-3,72E+00
RSF	MJ	2,03E-01	2,45E-03	2,80E-04	2,80E-04	1,66E-03	5,01E-03	1,06E-06	-1,13E-01
NRSF	MJ	8,97E-01	9,93E-03	4,50E-04	4,50E-04	6,75E-03	3,78E-03	3,45E-06	1,12E-01
FW	m3	1,70E-01	9,30E-04	2,30E-04	2,30E-04	6,30E-04	1,33E-03	2,38E-06	-2,99E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,51E+01	1,80E-01	4,29E-02	4,29E-02	1,22E-01	7,76E-01	3,50E-04	-5,00E+00
NHWD	kg	2,61E+00	4,15E-01	2,93E-03	2,93E-03	2,82E-01	5,42E-02	1,25E-02	-6,97E-01
RWD	kg	2,64E-02	1,60E-04	4,55E-05	4,55E-05	1,10E-04	2,20E-04	7,61E-08	-4,73E-03
CRE	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
EE	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
MFER	kg	4,60E-01	1,88E-03	1,45E-03	1,45E-03	1,28E-03	1,77E-03	3,96E-06	-2,93E-03
MFR	kg	6,65E-01	6,83E-03	1,83E-03	1,83E-03	4,64E-03	1,03E-02	6,17E-06	-2,23E-01

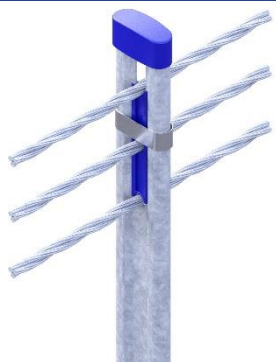
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-17 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 3RC-17 utilizes 3 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	H2 L2
Impact severity class	A
Normalized working width Class	W8 (3.2 m)
Normalized vehicle intrusion class	VI8 (3.3 m)
Normalized dynamic deflection	3.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	5.64	64,7%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.53	0 %	0 %
Total	6.20	58,9%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.3235		5.22 %
Polypropylene bag	0.0006		< 0.01 %
Total	0.3241		5.23 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.16

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,81E+01	4,79E-01	3,87E-01	3,87E-01	3,07E-01	1,33E-01	4,65E-02	-1,54E+00
GWP-fossil	kg CO2 eq.	1,83E+01	4,78E-01	3,87E-01	3,87E-01	3,06E-01	1,40E-01	4,65E-02	-1,52E+00
GWP-biogenic	kg CO2 eq.	-3,39E-01	8,50E-04	2,50E-04	2,50E-04	5,40E-04	-7,77E-03	1,93E-06	-2,54E-02
GWP-luluc	kg CO2 eq.	2,95E-02	1,90E-04	3,98E-05	3,98E-05	1,20E-04	1,80E-04	2,34E-07	-2,04E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,68E+01	4,74E-01	3,84E-01	3,84E-01	3,04E-01	1,38E-01	4,65E-02	-1,49E+00
ODP	kg CFC 11 eq.	1,05E-06	1,12E-07	8,27E-08	8,27E-08	7,15E-08	1,68E-08	7,94E-11	-8,22E-08
AP	mol H+ eq.	7,98E-02	2,42E-03	4,02E-03	4,02E-03	1,55E-03	1,72E-03	7,09E-06	-6,69E-03
EP-freshwater	kg PO43- eq.	5,88E-03	3,13E-05	1,21E-05	1,21E-05	2,00E-05	9,64E-05	7,25E-08	-9,30E-04
EP-marine	kg N eq.	1,90E-02	8,30E-04	1,78E-03	1,78E-03	5,30E-04	3,80E-04	3,49E-06	-1,35E-03
EP-terrestrial	mol N eq.	1,94E-01	9,12E-03	1,95E-02	1,95E-02	5,84E-03	4,21E-03	3,50E-05	-1,35E-02
POCP	kg NMVOC eq.	5,80E-02	2,56E-03	5,31E-03	5,31E-03	1,64E-03	1,14E-03	8,58E-06	-3,74E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,03E-03	1,61E-06	1,81E-07	1,81E-07	1,03E-06	1,73E-05	2,08E-09	-4,27E-06
ADP-fossil <sup>2</sup>	MJ	1,34E+02	5,48E-01	2,61E-01	2,61E-01	3,51E-01	6,70E-01	1,50E-03	-1,09E+01
WDP	m3	7,43E+00	3,49E-02	1,30E-02	1,30E-02	2,24E-02	4,78E-02	1,50E-04	-1,21E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,27E+01	7,73E-02	2,30E-02	2,30E-02	4,95E-02	1,38E-01	9,71E-05	-2,49E+00
PERM	MJ	1,37E+01	2,54E-02	6,73E-03	6,73E-03	1,63E-02	1,88E-01	4,42E-05	-4,68E-01
PERT	MJ	3,64E+01	1,03E-01	2,97E-02	2,97E-02	6,58E-02	3,27E-01	1,40E-04	-2,96E+00
PENRE	MJ	1,74E+02	7,00E-01	2,95E-01	2,95E-01	4,49E-01	9,56E-01	1,64E-03	-1,81E+01
PENRM	MJ	7,77E+01	6,63E+00	4,99E+00	4,99E+00	4,25E+00	1,14E+00	6,31E-03	-8,44E+00
PENRT	MJ	2,51E+02	7,33E+00	5,28E+00	5,28E+00	4,70E+00	2,10E+00	7,95E-03	-2,65E+01
SM	kg	5,28E+00	7,36E-03	3,91E-03	3,91E-03	4,72E-03	6,23E+00	2,82E-05	-3,52E+00
RSF	MJ	2,54E-01	2,19E-03	3,70E-04	3,70E-04	1,41E-03	4,24E-03	1,58E-06	-1,07E-01
NRSF	MJ	1,06E+00	8,89E-03	5,90E-04	5,90E-04	5,70E-03	3,21E-03	5,15E-06	3,04E-01
FW	m3	1,87E-01	8,30E-04	3,10E-04	3,10E-04	5,30E-04	1,13E-03	3,56E-06	-2,84E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,92E+01	1,61E-01	5,72E-02	5,72E-02	1,03E-01	6,56E-01	5,30E-04	-4,74E+00
NHWD	kg	2,99E+00	3,72E-01	3,90E-03	3,90E-03	2,38E-01	4,71E-02	1,87E-02	-6,60E-01
RWD	kg	2,49E-02	1,40E-04	6,07E-05	6,07E-05	9,29E-05	1,80E-04	1,14E-07	-4,49E-03
CRE	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
EE	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
MFER	kg	7,15E-01	1,68E-03	1,93E-03	1,93E-03	1,08E-03	1,54E-03	5,90E-06	-2,79E-03
MFR	kg	9,24E-01	6,11E-03	2,44E-03	2,44E-03	3,92E-03	8,71E-03	9,22E-06	-2,12E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

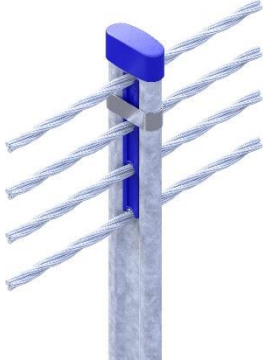
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE 4RC-17 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
 SAFENCE 4RC-17 utilizes 4 wire ropes and post distance of 3.0 m and conform to EN1317-2



Containment level	H2 L2
Impact severity class	A
Normalized working width Class	W8 (3.2 m)
Normalized vehicle intrusion class	VI8 (3.3 m)
Normalized dynamic deflection	3.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.73	69,2%	0 %
Polypropylene	0.03	0 %	0 %
Zinc (from HDG)	0.65	0 %	0 %
Total	7.42	62,8%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4092		5.51 %
Polypropylene bag	0.0006		0.01 %
Total	0.4098		5.53 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,97E+01	5,46E-01	3,87E-01	3,87E-01	3,67E-01	1,58E-01	4,65E-02	-1,67E+00
GWP-fossil	kg CO2 eq.	2,01E+01	5,44E-01	3,87E-01	3,87E-01	3,67E-01	1,67E-01	4,65E-02	-1,64E+00
GWP-biogenic	kg CO2 eq.	-4,36E-01	9,60E-04	2,50E-04	2,50E-04	6,50E-04	-9,30E-03	1,93E-06	-2,75E-02
GWP-luluc	kg CO2 eq.	3,54E-02	2,20E-04	3,98E-05	3,98E-05	1,50E-04	2,20E-04	2,34E-07	-2,21E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,82E+01	5,40E-01	3,84E-01	3,84E-01	3,64E-01	1,64E-01	4,65E-02	-1,61E+00
ODP	kg CFC 11 eq.	1,14E-06	1,27E-07	8,27E-08	8,27E-08	8,56E-08	2,01E-08	7,94E-11	-8,92E-08
AP	mol H+ eq.	8,82E-02	2,76E-03	4,02E-03	4,02E-03	1,86E-03	2,06E-03	7,09E-06	-7,24E-03
EP-freshwater	kg PO43- eq.	6,40E-03	3,56E-05	1,21E-05	1,21E-05	2,40E-05	1,20E-04	7,25E-08	-1,01E-03
EP-marine	kg N eq.	2,10E-02	9,50E-04	1,78E-03	1,78E-03	6,40E-04	4,50E-04	3,49E-06	-1,47E-03
EP-terrestrial	mol N eq.	2,16E-01	1,04E-02	1,95E-02	1,95E-02	6,99E-03	5,03E-03	3,50E-05	-1,47E-02
POCP	kg NMVOC eq.	6,38E-02	2,91E-03	5,31E-03	5,31E-03	1,96E-03	1,36E-03	8,58E-06	-4,04E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,20E-03	1,83E-06	1,81E-07	1,81E-07	1,23E-06	2,08E-05	2,08E-09	-4,58E-06
ADP-fossil <sup>2</sup>	MJ	1,45E+02	6,24E-01	2,61E-01	2,61E-01	4,20E-01	8,00E-01	1,50E-03	-1,18E+01
WDP	m3	8,32E+00	3,97E-02	1,30E-02	1,30E-02	2,68E-02	5,71E-02	1,50E-04	-1,32E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,65E+01	8,80E-02	2,30E-02	2,30E-02	5,93E-02	1,66E-01	9,71E-05	-2,71E+00
PERM	MJ	1,60E+01	2,89E-02	6,73E-03	6,73E-03	1,95E-02	2,25E-01	4,42E-05	-5,07E-01
PERT	MJ	4,25E+01	1,17E-01	2,97E-02	2,97E-02	7,87E-02	3,91E-01	1,40E-04	-3,21E+00
PENRE	MJ	1,92E+02	7,97E-01	2,95E-01	2,95E-01	5,37E-01	1,14E+00	1,64E-03	-1,96E+01
PENRM	MJ	8,44E+01	7,55E+00	4,99E+00	4,99E+00	5,09E+00	1,37E+00	6,31E-03	-8,84E+00
PENRT	MJ	2,77E+02	8,35E+00	5,28E+00	5,28E+00	5,62E+00	2,51E+00	7,95E-03	-2,85E+01
SM	kg	6,47E+00	8,38E-03	3,91E-03	3,91E-03	5,65E-03	7,45E+00	2,82E-05	-3,82E+00
RSF	MJ	2,72E-01	2,50E-03	3,70E-04	3,70E-04	1,68E-03	5,07E-03	1,58E-06	-1,17E-01
NRSF	MJ	1,15E+00	1,01E-02	5,90E-04	5,90E-04	6,82E-03	3,83E-03	5,15E-06	2,04E-01
FW	m3	2,09E-01	9,50E-04	3,10E-04	3,10E-04	6,40E-04	1,35E-03	3,56E-06	-3,08E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,36E+01	1,84E-01	5,72E-02	5,72E-02	1,24E-01	7,85E-01	5,30E-04	-5,15E+00
NHWD	kg	3,30E+00	4,24E-01	3,90E-03	3,90E-03	2,85E-01	5,58E-02	1,87E-02	-7,17E-01
RWD	kg	2,99E-02	1,70E-04	6,07E-05	6,07E-05	1,10E-04	2,20E-04	1,14E-07	-4,87E-03
CRE	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
EE	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
MFER	kg	7,18E-01	1,92E-03	1,93E-03	1,93E-03	1,29E-03	1,82E-03	5,90E-06	-3,02E-03
MFR	kg	9,58E-01	6,96E-03	2,44E-03	2,44E-03	4,69E-03	1,04E-02	9,22E-06	-2,30E-01

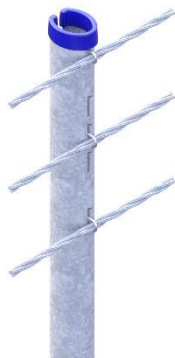
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RU-SLOPE-02 CC3.5 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 3RU-Slope-02 utilizes 3 wire ropes and post distance of 3.5 m and conform to EN1317-2 + TRVMB350



Containment level	N2S
Impact severity class	A
Normalized working width Class	W6 (2.1 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	2.1 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	6.84	55,5%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.59	0 %	0 %
Total	7.44	51,0%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4057		5.45 %
Polypropylene bag	0.0002		< 0.01 %
Total	0.4058		5.45 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,85E+01	5,96E-01	3,60E-01	3,60E-01	3,69E-01	1,57E-01	3,07E-02	-1,98E+00
GWP-fossil	kg CO2 eq.	1,89E+01	5,94E-01	3,60E-01	3,60E-01	3,68E-01	1,66E-01	3,07E-02	-1,95E+00
GWP-biogenic	kg CO2 eq.	-3,82E-01	1,05E-03	2,30E-04	2,30E-04	6,50E-04	-9,35E-03	1,27E-06	-3,29E-02
GWP-luluc	kg CO2 eq.	3,25E-02	2,40E-04	3,71E-05	3,71E-05	1,50E-04	2,20E-04	1,55E-07	-2,65E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,72E+01	5,89E-01	3,57E-01	3,57E-01	3,65E-01	1,63E-01	3,07E-02	-1,91E+00
ODP	kg CFC 11 eq.	1,35E-06	1,39E-07	7,70E-08	7,70E-08	8,59E-08	2,02E-08	5,24E-11	-1,07E-07
AP	mol H+ eq.	9,54E-02	3,01E-03	3,74E-03	3,74E-03	1,86E-03	2,07E-03	4,68E-06	-8,62E-03
EP-freshwater	kg PO43- eq.	8,38E-03	3,89E-05	1,13E-05	1,13E-05	2,41E-05	1,20E-04	4,79E-08	-1,21E-03
EP-marine	kg N eq.	2,29E-02	1,04E-03	1,66E-03	1,66E-03	6,40E-04	4,50E-04	2,30E-06	-1,75E-03
EP-terrestrial	mol N eq.	2,35E-01	1,13E-02	1,82E-02	1,82E-02	7,02E-03	5,05E-03	2,31E-05	-1,75E-02
POCP	kg NMVOC eq.	7,53E-02	3,18E-03	4,94E-03	4,94E-03	1,97E-03	1,37E-03	5,66E-06	-4,80E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,24E-03	2,00E-06	1,68E-07	1,68E-07	1,24E-06	2,09E-05	1,37E-09	-5,41E-06
ADP-fossil <sup>2</sup>	MJ	1,51E+02	6,81E-01	2,43E-01	2,43E-01	4,22E-01	8,01E-01	9,90E-04	-1,41E+01
WDP	m3	1,07E+01	4,34E-02	1,21E-02	1,21E-02	2,69E-02	5,71E-02	9,74E-05	-1,57E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,32E+01	9,61E-02	2,14E-02	2,14E-02	5,95E-02	1,66E-01	6,41E-05	-3,24E+00
PERM	MJ	1,31E+01	3,15E-02	6,26E-03	6,26E-03	1,95E-02	2,26E-01	2,92E-05	-6,05E-01
PERT	MJ	3,63E+01	1,28E-01	2,77E-02	2,77E-02	7,91E-02	3,92E-01	9,33E-05	-3,84E+00
PENRE	MJ	1,91E+02	8,70E-01	2,74E-01	2,74E-01	5,39E-01	1,14E+00	1,08E-03	-2,34E+01
PENRM	MJ	9,50E+01	8,24E+00	4,64E+00	4,64E+00	5,11E+00	1,37E+00	4,16E-03	-1,02E+01
PENRT	MJ	2,86E+02	9,11E+00	4,91E+00	4,91E+00	5,64E+00	2,52E+00	5,25E-03	-3,36E+01
SM	kg	6,03E+00	9,15E-03	3,64E-03	3,64E-03	5,67E-03	7,48E+00	1,86E-05	-4,58E+00
RSF	MJ	2,51E-01	2,73E-03	3,50E-04	3,50E-04	1,69E-03	5,09E-03	1,04E-06	-1,39E-01
NRSF	MJ	1,31E+00	1,11E-02	5,50E-04	5,50E-04	6,85E-03	3,84E-03	3,40E-06	9,09E-02
FW	m3	2,58E-01	1,03E-03	2,90E-04	2,90E-04	6,40E-04	1,35E-03	2,35E-06	-3,67E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	5,29E+01	2,00E-01	5,32E-02	5,32E-02	1,24E-01	7,88E-01	3,50E-04	-6,16E+00
NHWD	kg	3,83E+00	4,62E-01	3,63E-03	3,63E-03	2,86E-01	5,49E-02	1,23E-02	-8,58E-01
RWD	kg	2,57E-02	1,80E-04	5,65E-05	5,65E-05	1,10E-04	2,20E-04	7,50E-08	-5,83E-03
CRE	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
EE	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
MFER	kg	1,58E+00	2,09E-03	1,80E-03	1,80E-03	1,30E-03	1,79E-03	3,90E-06	-3,61E-03
MFR	kg	1,57E+00	7,60E-03	2,27E-03	2,27E-03	4,71E-03	1,04E-02	6,08E-06	-2,75E-01

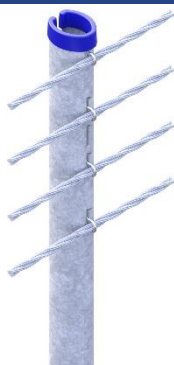
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RU-SLOPE-02 CC3.0 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 4RU-Slope-02 utilizes 4 wire ropes and post distance of 3.0 m and conform to EN1317-2 + TRVMB350



Containment level	N2S
Impact severity class	A
Normalized working width Class	W6 (1.8 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.8 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.90	62,4%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.75	0 %	0 %
Total	8.67	56,8%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.5161		5.95 %
Polypropylene bag	0.0002		< 0.01 %
Total	0.5163		5.96 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.26

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,25E+01	6,55E-01	4,20E-01	4,20E-01	4,29E-01	1,82E-01	3,07E-02	-2,12E+00
GWP-fossil	kg CO2 eq.	2,29E+01	6,53E-01	4,20E-01	4,20E-01	4,28E-01	1,92E-01	3,07E-02	-2,08E+00
GWP-biogenic	kg CO2 eq.	-4,91E-01	1,15E-03	2,70E-04	2,70E-04	7,60E-04	-1,09E-02	1,27E-06	-3,51E-02
GWP-luluc	kg CO2 eq.	4,09E-02	2,60E-04	4,32E-05	4,32E-05	1,70E-04	2,50E-04	1,55E-07	-2,82E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,08E+01	6,48E-01	4,17E-01	4,17E-01	4,25E-01	1,89E-01	3,07E-02	-2,04E+00
ODP	kg CFC 11 eq.	1,62E-06	1,52E-07	8,98E-08	8,98E-08	1,00E-07	2,34E-08	5,24E-11	-1,14E-07
AP	mol H+ eq.	1,16E-01	3,31E-03	4,36E-03	4,36E-03	2,17E-03	2,41E-03	4,68E-06	-9,20E-03
EP-freshwater	kg PO43- eq.	1,01E-02	4,28E-05	1,31E-05	1,31E-05	2,80E-05	1,30E-04	4,79E-08	-1,29E-03
EP-marine	kg N eq.	2,78E-02	1,14E-03	1,93E-03	1,93E-03	7,50E-04	5,30E-04	2,30E-06	-1,87E-03
EP-terrestrial	mol N eq.	2,86E-01	1,25E-02	2,12E-02	2,12E-02	8,17E-03	5,88E-03	2,31E-05	-1,86E-02
POCP	kg NMVOC eq.	9,09E-02	3,50E-03	5,76E-03	5,76E-03	2,29E-03	1,59E-03	5,66E-06	-5,12E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,53E-03	2,20E-06	1,96E-07	1,96E-07	1,44E-06	2,43E-05	1,37E-09	-5,77E-06
ADP-fossil <sup>2</sup>	MJ	1,82E+02	4,27E+00	2,83E-01	2,83E-01	4,91E-01	9,31E-01	9,90E-04	-1,51E+01
WDP	m3	1,30E+01	4,77E-02	1,41E-02	1,41E-02	3,13E-02	6,63E-02	9,74E-05	-1,68E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,91E+01	1,19E-01	2,50E-02	2,50E-02	6,93E-02	1,93E-01	6,41E-05	-3,45E+00
PERM	MJ	1,65E+01	2,12E-02	7,30E-03	7,30E-03	2,27E-02	2,63E-01	2,92E-05	-6,45E-01
PERT	MJ	4,56E+01	1,40E-01	3,23E-02	3,23E-02	9,20E-02	4,56E-01	9,33E-05	-4,10E+00
PENRE	MJ	2,33E+02	4,47E+00	3,20E-01	3,20E-01	6,27E-01	1,33E+00	1,08E-03	-2,50E+01
PENRM	MJ	1,14E+02	5,54E+00	5,41E+00	5,41E+00	5,94E+00	1,60E+00	4,16E-03	-1,08E+01
PENRT	MJ	3,48E+02	1,00E+01	5,73E+00	5,73E+00	6,57E+00	2,93E+00	5,25E-03	-3,59E+01
SM	kg	7,65E+00	6,15E-03	4,24E-03	4,24E-03	6,60E-03	8,71E+00	1,86E-05	-4,88E+00
RSF	MJ	3,02E-01	1,83E-03	4,00E-04	4,00E-04	1,97E-03	5,92E-03	1,04E-06	-1,49E-01
NRSF	MJ	1,58E+00	7,44E-03	6,50E-04	6,50E-04	7,97E-03	4,46E-03	3,40E-06	8,43E-02
FW	m3	3,13E-01	1,14E-03	3,30E-04	3,30E-04	7,40E-04	1,57E-03	2,35E-06	-3,92E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	6,40E+01	1,35E-01	6,21E-02	6,21E-02	1,44E-01	9,17E-01	3,50E-04	-6,57E+00
NHWD	kg	4,63E+00	3,11E-01	4,24E-03	4,24E-03	3,33E-01	6,36E-02	1,23E-02	-9,16E-01
RWD	kg	3,25E-02	1,20E-04	6,59E-05	6,59E-05	1,30E-04	2,60E-04	7,50E-08	-6,22E-03
CRE	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
EE	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
MFER	kg	1,85E+00	1,41E-03	2,10E-03	2,10E-03	1,51E-03	2,07E-03	3,90E-06	-3,85E-03
MFR	kg	1,85E+00	5,11E-03	2,65E-03	2,65E-03	5,48E-03	1,21E-02	6,08E-06	-2,94E-01

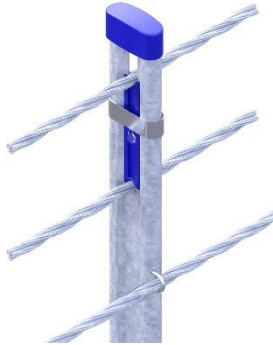
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RC-SLOPE-10 CC4.88 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 3RC-Slope-10 utilizes 3 wire ropes and post distance of 4.88 m and conform to EN1317-2 + TRVMB350



Containment level	N2S
Impact severity class	A
Normalized working width Class	W6 (1.8 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.8 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.90	63,2%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.75	0 %	0 %
Total	8.67	58,1%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.5161		5.95 %
Polypropylene bag	0.0002		< 0.01 %
Total	0.5163		5.96 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.26

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,49E+01	4,79E-01	2,38E-01	2,38E-01	3,08E-01	1,31E-01	3,09E-02	-6,08E-01
GWP-fossil	kg CO2 eq.	1,52E+01	4,78E-01	2,38E-01	2,38E-01	3,07E-01	1,39E-01	3,09E-02	-5,98E-01
GWP-biogenic	kg CO2 eq.	-2,60E-01	8,50E-04	1,50E-04	1,50E-04	5,40E-04	-7,81E-03	1,28E-06	-9,97E-03
GWP-luluc	kg CO2 eq.	2,68E-02	1,90E-04	2,45E-05	2,45E-05	1,20E-04	1,80E-04	1,55E-07	-8,00E-04
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,37E+01	4,74E-01	2,36E-01	2,36E-01	3,05E-01	1,37E-01	3,09E-02	-5,86E-01
ODP	kg CFC 11 eq.	9,10E-07	1,12E-07	5,09E-08	5,09E-08	7,17E-08	1,68E-08	5,27E-11	-3,23E-08
AP	mol H+ eq.	6,77E-02	2,42E-03	2,47E-03	2,47E-03	1,56E-03	1,73E-03	4,70E-06	-2,63E-03
EP-freshwater	kg PO43- eq.	5,10E-03	3,13E-05	7,45E-06	7,45E-06	2,01E-05	9,67E-05	4,81E-08	-3,60E-04
EP-marine	kg N eq.	1,62E-02	8,30E-04	1,10E-03	1,10E-03	5,40E-04	3,80E-04	2,32E-06	-5,30E-04
EP-terrestrial	mol N eq.	1,65E-01	9,11E-03	1,20E-02	1,20E-02	5,86E-03	4,22E-03	2,32E-05	-5,33E-03
POCP	kg NMVOC eq.	4,94E-02	2,56E-03	3,26E-03	3,26E-03	1,65E-03	1,14E-03	5,69E-06	-1,48E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	8,80E-04	1,61E-06	1,11E-07	1,11E-07	1,04E-06	1,74E-05	1,38E-09	-1,70E-06
ADP-fossil <sup>2</sup>	MJ	1,10E+02	5,48E-01	1,60E-01	1,60E-01	3,52E-01	6,69E-01	9,90E-04	-4,27E+00
WDP	m3	6,51E+00	3,49E-02	7,99E-03	7,99E-03	2,24E-02	4,77E-02	9,79E-05	-4,78E-01

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,03E+01	7,73E-02	1,41E-02	1,41E-02	4,97E-02	1,39E-01	6,44E-05	-9,79E-01
PERM	MJ	1,16E+01	2,54E-02	4,14E-03	4,14E-03	1,63E-02	1,89E-01	2,93E-05	-1,84E-01
PERT	MJ	3,19E+01	1,03E-01	1,83E-02	1,83E-02	6,60E-02	3,28E-01	9,38E-05	-1,16E+00
PENRE	MJ	1,47E+02	7,00E-01	1,81E-01	1,81E-01	4,50E-01	9,56E-01	1,09E-03	-7,11E+00
PENRM	MJ	6,65E+01	6,63E+00	3,06E+00	3,06E+00	4,26E+00	1,15E+00	4,19E-03	-3,42E+00
PENRT	MJ	2,13E+02	7,33E+00	3,25E+00	3,25E+00	4,71E+00	2,10E+00	5,27E-03	-1,05E+01
SM	kg	4,95E+00	7,36E-03	2,40E-03	2,40E-03	4,73E-03	6,25E+00	1,87E-05	-1,38E+00
RSF	MJ	2,20E-01	2,19E-03	2,30E-04	2,30E-04	1,41E-03	4,25E-03	1,05E-06	-4,22E-02
NRSF	MJ	8,73E-01	8,89E-03	3,70E-04	3,70E-04	5,72E-03	3,21E-03	3,42E-06	1,60E-01
FW	m3	2,03E+01	7,73E-02	1,41E-02	1,41E-02	4,97E-02	1,39E-01	6,44E-05	-9,79E-01

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,39E+01	1,61E-01	3,52E-02	3,52E-02	1,04E-01	6,58E-01	3,50E-04	-1,86E+00
NHWD	kg	2,62E+00	3,72E-01	2,40E-03	2,40E-03	2,39E-01	4,62E-02	1,24E-02	-2,59E-01
RWD	kg	2,31E-02	1,40E-04	3,73E-05	3,73E-05	9,32E-05	1,80E-04	7,54E-08	-1,76E-03
CRE	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
EE	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
MFER	kg	6,38E-01	1,68E-03	1,19E-03	1,19E-03	1,08E-03	1,51E-03	3,92E-06	-1,10E-03
MFR	kg	8,13E-01	6,11E-03	1,50E-03	1,50E-03	3,93E-03	8,71E-03	6,11E-06	-8,32E-02

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for reuse; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

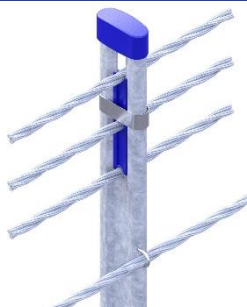
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.



## SAFENCE 4RC-SLOPE-10 CC4.88 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 4RC-Slope-10 utilizes 4 wire ropes and post distance of 4.88 m and conform to EN1317-2 + TRVMB350



Containment level	N2S
Impact severity class	A
Normalized working width Class	W6 (1.8 m)
Normalized vehicle intrusion class	N/A
Normalized dynamic deflection	1.8 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	7.90	67,9%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.75	0 %	0 %
Total	8.67	62,2%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.5161		5.95 %
Polypropylene bag	0.0002		< 0.01 %
Total	0.5163		5.96 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.26

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	1,67E+01	5,46E-01	2,38E-01	2,38E-01	3,68E-01	1,57E-01	3,09E-02	-5,71E-01
GWP-fossil	kg CO2 eq.	1,70E+01	5,44E-01	2,38E-01	2,38E-01	3,68E-01	1,66E-01	3,09E-02	-5,61E-01
GWP-biogenic	kg CO2 eq.	-3,55E-01	9,60E-04	1,50E-04	1,50E-04	6,50E-04	-9,34E-03	1,28E-06	-9,34E-03
GWP-luluc	kg CO2 eq.	3,28E-02	2,20E-04	2,45E-05	2,45E-05	1,50E-04	2,20E-04	1,55E-07	-7,50E-04
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,51E+01	5,40E-01	2,36E-01	2,36E-01	3,65E-01	1,63E-01	3,09E-02	-5,49E-01
ODP	kg CFC 11 eq.	1,00E-06	1,27E-07	5,09E-08	5,09E-08	8,58E-08	2,01E-08	5,27E-11	-3,03E-08
AP	mol H+ eq.	7,66E-02	2,76E-03	2,47E-03	2,47E-03	1,86E-03	2,07E-03	4,70E-06	-2,47E-03
EP-freshwater	kg PO43- eq.	5,65E-03	3,56E-05	7,45E-06	7,45E-06	2,41E-05	1,20E-04	4,81E-08	-3,40E-04
EP-marine	kg N eq.	1,83E-02	9,50E-04	1,10E-03	1,10E-03	6,40E-04	4,50E-04	2,32E-06	-5,00E-04
EP-terrestrial	mol N eq.	1,87E-01	1,04E-02	1,20E-02	1,20E-02	7,01E-03	5,05E-03	2,32E-05	-5,00E-03
POCP	kg NMVOC eq.	5,54E-02	2,91E-03	3,26E-03	3,26E-03	1,97E-03	1,36E-03	5,69E-06	-1,39E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,05E-03	1,83E-06	1,11E-07	1,11E-07	1,24E-06	2,08E-05	1,38E-09	-1,59E-06
ADP-fossil <sup>2</sup>	MJ	1,21E+02	6,24E-01	1,60E-01	1,60E-01	4,22E-01	8,00E-01	9,90E-04	-4,01E+00
WDP	m3	7,42E+00	3,97E-02	7,99E-03	7,99E-03	2,68E-02	5,70E-02	9,79E-05	-4,48E-01

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,43E+01	8,80E-02	1,41E-02	1,41E-02	5,94E-02	1,66E-01	6,44E-05	-9,18E-01
PERM	MJ	1,39E+01	2,89E-02	4,14E-03	4,14E-03	1,95E-02	2,26E-01	2,93E-05	-1,72E-01
PERT	MJ	3,82E+01	1,17E-01	1,83E-02	1,83E-02	7,89E-02	3,92E-01	9,38E-05	-1,09E+00
PENRE	MJ	1,66E+02	7,97E-01	1,81E-01	1,81E-01	5,38E-01	1,14E+00	1,09E-03	-6,66E+00
PENRM	MJ	7,34E+01	7,55E+00	3,06E+00	3,06E+00	5,10E+00	1,37E+00	4,19E-03	-3,23E+00
PENRT	MJ	2,40E+02	8,35E+00	3,25E+00	3,25E+00	5,64E+00	2,51E+00	5,27E-03	-9,89E+00
SM	kg	6,15E+00	8,38E-03	2,40E-03	2,40E-03	5,66E-03	7,47E+00	1,87E-05	-1,29E+00
RSF	MJ	2,39E-01	2,50E-03	2,30E-04	2,30E-04	1,69E-03	5,08E-03	1,05E-06	-3,95E-02
NRSF	MJ	9,61E-01	1,01E-02	3,70E-04	3,70E-04	6,84E-03	3,83E-03	3,42E-06	1,62E-01
FW	m3	1,86E-01	9,50E-04	1,90E-04	1,90E-04	6,40E-04	1,34E-03	2,36E-06	-1,05E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,84E+01	1,84E-01	3,52E-02	3,52E-02	1,24E-01	7,87E-01	3,50E-04	-1,75E+00
NHWD	kg	2,94E+00	4,24E-01	2,40E-03	2,40E-03	2,86E-01	5,49E-02	1,24E-02	-2,43E-01
RWD	kg	2,81E-02	1,70E-04	3,73E-05	3,73E-05	1,10E-04	2,20E-04	7,54E-08	-1,65E-03
CRE	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
EE	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
MFER	kg	6,41E-01	1,92E-03	1,19E-03	1,19E-03	1,29E-03	1,79E-03	3,92E-06	-1,03E-03
MFR	kg	8,49E-01	6,96E-03	1,50E-03	1,50E-03	4,70E-03	1,04E-02	6,11E-06	-7,80E-02

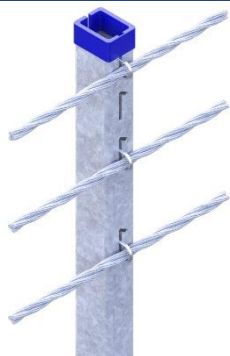
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 3RSC-16 CC2.0 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 3RSC-16 utilizes 3 wire ropes and post distance of 2.0 m and conform to MASH16



Containment level	TL3
ASI	0.46
THIV	4.8 m/s
Working width	2.2 m
Dynamic deflection	2.0 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	11.33	41,7%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.77	0 %	0 %
Total	12.11	39,0%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.5173		4.27 %
Polypropylene bag	0.0003		< 0.01 %
Total	0.5176		4.27 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.26

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	3,43E+01	1,11E+00	6,30E-01	6,30E-01	6,00E-01	2,53E-01	3,09E-02	-3,93E+00
GWP-fossil	kg CO2 eq.	3,47E+01	1,11E+00	6,30E-01	6,30E-01	5,99E-01	2,68E-01	3,09E-02	-3,86E+00
GWP-biogenic	kg CO2 eq.	-4,15E-01	1,96E-03	4,10E-04	4,10E-04	1,06E-03	-1,52E-02	1,28E-06	-6,54E-02
GWP-luluc	kg CO2 eq.	4,81E-02	4,40E-04	6,48E-05	6,48E-05	2,40E-04	3,50E-04	1,55E-07	-5,26E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	3,25E+01	1,10E+00	6,25E-01	6,25E-01	5,94E-01	2,63E-01	3,09E-02	-3,79E+00
ODP	kg CFC 11 eq.	2,59E-06	2,59E-07	1,35E-07	1,35E-07	1,40E-07	3,28E-08	5,27E-11	-2,12E-07
AP	mol H+ eq.	1,73E-01	5,62E-03	6,55E-03	6,55E-03	3,03E-03	3,36E-03	4,70E-06	-1,71E-02
EP-freshwater	kg PO43- eq.	1,59E-02	7,26E-05	1,97E-05	1,97E-05	3,92E-05	1,90E-04	4,81E-08	-2,40E-03
EP-marine	kg N eq.	4,18E-02	1,94E-03	2,90E-03	2,90E-03	1,05E-03	7,30E-04	2,32E-06	-3,47E-03
EP-terrestrial	mol N eq.	4,25E-01	2,12E-02	3,18E-02	3,18E-02	1,14E-02	8,22E-03	2,32E-05	-3,47E-02
POCP	kg NMVOC eq.	1,42E-01	5,94E-03	8,64E-03	8,64E-03	3,21E-03	2,22E-03	5,69E-06	-9,51E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,86E-03	3,74E-06	2,94E-07	2,94E-07	2,02E-06	3,39E-05	1,38E-09	-1,07E-05
ADP-fossil <sup>2</sup>	MJ	2,90E+02	1,27E+00	4,24E-01	4,24E-01	6,87E-01	1,30E+00	9,90E-04	-2,81E+01
WDP	m3	1,97E+01	8,10E-02	2,12E-02	2,12E-02	4,37E-02	9,25E-02	9,79E-05	-3,12E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	3,62E+01	1,79E-01	3,75E-02	3,75E-02	9,68E-02	2,70E-01	6,44E-05	-6,43E+00
PERM	MJ	1,90E+01	5,88E-02	1,10E-02	1,10E-02	3,18E-02	3,68E-01	2,93E-05	-1,20E+00
PERT	MJ	5,51E+01	2,38E-01	4,84E-02	4,84E-02	1,29E-01	6,38E-01	9,38E-05	-7,63E+00
PENRE	MJ	3,49E+02	1,62E+00	4,80E-01	4,80E-01	8,77E-01	1,86E+00	1,09E-03	-4,66E+01
PENRM	MJ	1,79E+02	1,54E+01	8,12E+00	8,12E+00	8,31E+00	2,23E+00	4,19E-03	-1,98E+01
PENRT	MJ	5,28E+02	1,70E+01	8,60E+00	8,60E+00	9,18E+00	4,09E+00	5,27E-03	-6,64E+01
SM	kg	8,99E+00	1,71E-02	6,36E-03	6,36E-03	9,22E-03	1,22E+01	1,87E-05	-9,10E+00
RSF	MJ	4,68E-01	5,09E-03	6,10E-04	6,10E-04	2,75E-03	8,27E-03	1,05E-06	-2,77E-01
NRSF	MJ	2,29E+00	2,06E-02	9,70E-04	9,70E-04	1,11E-02	6,23E-03	3,42E-06	-4,86E-03
FW	m3	4,70E-01	1,93E-03	5,00E-04	5,00E-04	1,04E-03	2,18E-03	2,36E-06	-7,29E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	9,45E+01	3,74E-01	9,31E-02	9,31E-02	2,02E-01	1,28E+00	3,50E-04	-1,22E+01
NHWD	kg	7,26E+00	8,63E-01	6,36E-03	6,36E-03	4,66E-01	8,81E-02	1,24E-02	-1,71E+00
RWD	kg	3,75E-02	3,40E-04	9,89E-05	9,89E-05	1,80E-04	3,60E-04	7,54E-08	-1,16E-02
CRE	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
EE	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
MFER	kg	3,53E+00	3,91E-03	3,15E-03	3,15E-03	2,11E-03	2,87E-03	3,92E-06	-7,17E-03
MFR	kg	3,34E+00	1,42E-02	3,97E-03	3,97E-03	7,66E-03	1,69E-02	6,11E-06	-5,47E-01

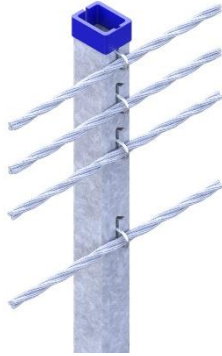
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RSC-16 CC2.0 (1 meter)

Single-sided cable barrier to be installed as side- and/or slope barrier. SAFENCE 3RSC-16 utilizes 3 wire ropes and post distance of 2.0 m and conform to MASH16



Containment level	TL3
ASI	0.46
THIV	4.8 m/s
Working width	2.2 m
Dynamic deflection	2.0 m
Ground surface at installation site	Gravel, or soil
Installation method	Driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	11.33	46,1%	0 %
Polypropylene	0.02	0 %	0 %
Zinc (from HDG)	0.77	0 %	0 %
Total	12.11	43,0%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.5173		4.27 %
Polypropylene bag	0.0003		< 0.01 %
Total	0.5176		4.27 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.26

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	3,61E+01	1,17E+00	6,30E-01	6,30E-01	6,61E-01	2,78E-01	3,09E-02	-4,07E+00
GWP-fossil	kg CO2 eq.	3,65E+01	1,17E+00	6,30E-01	6,30E-01	6,60E-01	2,95E-01	3,09E-02	-4,00E+00
GWP-biogenic	kg CO2 eq.	-5,06E-01	2,07E-03	4,10E-04	4,10E-04	1,17E-03	-1,68E-02	1,28E-06	-6,76E-02
GWP-luluc	kg CO2 eq.	5,41E-02	4,60E-04	6,48E-05	6,48E-05	2,60E-04	3,90E-04	1,55E-07	-5,44E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	3,40E+01	1,16E+00	6,25E-01	6,25E-01	6,54E-01	2,90E-01	3,09E-02	-3,92E+00
ODP	kg CFC 11 eq.	2,69E-06	2,72E-07	1,35E-07	1,35E-07	1,54E-07	3,61E-08	5,27E-11	-2,19E-07
AP	mol H+ eq.	1,83E-01	5,91E-03	6,55E-03	6,55E-03	3,34E-03	3,71E-03	4,70E-06	-1,77E-02
EP-freshwater	kg PO43- eq.	1,65E-02	7,64E-05	1,97E-05	1,97E-05	4,32E-05	2,10E-04	4,81E-08	-2,48E-03
EP-marine	kg N eq.	4,40E-02	2,04E-03	2,90E-03	2,90E-03	1,15E-03	8,10E-04	2,32E-06	-3,59E-03
EP-terrestrial	mol N eq.	4,48E-01	2,23E-02	3,18E-02	3,18E-02	1,26E-02	9,05E-03	2,32E-05	-3,59E-02
POCP	kg NMVOC eq.	1,48E-01	6,25E-03	8,64E-03	8,64E-03	3,53E-03	2,44E-03	5,69E-06	-9,84E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	2,03E-03	3,93E-06	2,94E-07	2,94E-07	2,22E-06	3,74E-05	1,38E-09	-1,10E-05
ADP-fossil <sup>2</sup>	MJ	3,02E+02	1,34E+00	4,24E-01	4,24E-01	7,56E-01	1,43E+00	9,90E-04	-2,90E+01
WDP	m3	2,06E+01	8,52E-02	2,12E-02	2,12E-02	4,82E-02	1,02E-01	9,79E-05	-3,23E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	4,03E+01	1,89E-01	3,75E-02	3,75E-02	1,07E-01	2,97E-01	6,44E-05	-6,66E+00
PERM	MJ	2,13E+01	6,19E-02	1,10E-02	1,10E-02	3,50E-02	4,06E-01	2,93E-05	-1,24E+00
PERT	MJ	6,16E+01	2,51E-01	4,84E-02	4,84E-02	1,42E-01	7,03E-01	9,38E-05	-7,90E+00
PENRE	MJ	3,69E+02	1,71E+00	4,80E-01	4,80E-01	9,66E-01	2,05E+00	1,09E-03	-4,82E+01
PENRM	MJ	1,86E+02	1,62E+01	8,12E+00	8,12E+00	9,15E+00	2,46E+00	4,19E-03	-2,05E+01
PENRT	MJ	5,56E+02	1,79E+01	8,60E+00	8,60E+00	1,01E+01	4,50E+00	5,27E-03	-6,87E+01
SM	kg	1,02E+01	1,80E-02	6,36E-03	6,36E-03	1,02E-02	1,34E+01	1,87E-05	-9,42E+00
RSF	MJ	4,88E-01	5,35E-03	6,10E-04	6,10E-04	3,03E-03	9,11E-03	1,05E-06	-2,87E-01
NRSF	MJ	2,38E+00	2,17E-02	9,70E-04	9,70E-04	1,23E-02	6,87E-03	3,42E-06	-1,16E-02
FW	m3	4,94E-01	2,03E-03	5,00E-04	5,00E-04	1,15E-03	2,40E-03	2,36E-06	-7,55E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	9,92E+01	3,93E-01	9,31E-02	9,31E-02	2,22E-01	1,41E+00	3,50E-04	-1,27E+01
NHWD	kg	7,60E+00	9,08E-01	6,36E-03	6,36E-03	5,13E-01	9,69E-02	1,24E-02	-1,77E+00
RWD	kg	4,26E-02	3,50E-04	9,89E-05	9,89E-05	2,00E-04	4,00E-04	7,54E-08	-1,20E-02
CRE	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
EE	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
MFER	kg	3,53E+00	4,11E-03	3,15E-03	3,15E-03	2,32E-03	3,15E-03	3,92E-06	-7,42E-03
MFR	kg	3,37E+00	1,49E-02	3,97E-03	3,97E-03	8,44E-03	1,86E-02	6,11E-06	-5,66E-01

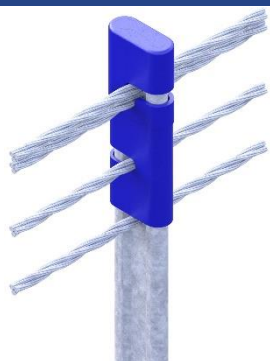
HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

<sup>2</sup>Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## SAFENCE 4RC-19 CC2.5 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-19 utilizes 4 wire ropes and post distance of 2.5 m and conform to MASH16



Containment level	TL3
ASI	0.62
THIV	5.6 m/s
Working width	2.2 m
Dynamic deflection	2.2 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	8.98	65,0%	0 %
Glass reinforced nylon	0.24	0 %	0 %
Zinc (from HDG)	0.66	0 %	0 %
Total	9.88	59,1%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4125		4.18 %
Polypropylene bag	0.0003		< 0.01 %
Total	0.4128		4.18 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.21

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,43E+01	8,11E-01	4,65E-01	4,65E-01	4,89E-01	2,43E-01	3,66E-01	-1,92E+00
GWP-fossil	kg CO2 eq.	2,47E+01	8,09E-01	4,64E-01	4,64E-01	4,88E-01	2,55E-01	3,65E-01	-1,88E+00
GWP-biogenic	kg CO2 eq.	-4,80E-01	1,43E-03	3,00E-04	3,00E-04	8,60E-04	-1,22E-02	1,51E-05	-4,11E-02
GWP-luluc	kg CO2 eq.	3,67E-02	3,20E-04	4,78E-05	4,78E-05	1,90E-04	3,00E-04	1,84E-06	-3,48E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	2,25E+01	8,03E-01	4,61E-01	4,61E-01	4,84E-01	2,50E-01	3,65E-01	-1,88E+00
ODP	kg CFC 11 eq.	1,22E-06	1,89E-07	9,93E-08	9,93E-08	1,14E-07	2,69E-08	6,23E-10	-1,40E-07
AP	mol H+ eq.	1,06E-01	4,10E-03	4,82E-03	4,82E-03	2,47E-03	2,75E-03	5,57E-05	-8,38E-03
EP-freshwater	kg PO43- eq.	7,05E-03	5,30E-05	1,45E-05	1,45E-05	3,19E-05	1,50E-04	5,69E-07	-1,57E-03
EP-marine	kg N eq.	2,55E-02	1,41E-03	2,14E-03	2,14E-03	8,50E-04	6,30E-04	2,74E-05	-1,53E-03
EP-terrestrial	mol N eq.	2,57E-01	1,54E-02	2,34E-02	2,34E-02	9,31E-03	6,75E-03	2,70E-04	-1,71E-02
POCP	kg NMVOC eq.	7,82E-02	4,33E-03	6,37E-03	6,37E-03	2,61E-03	1,83E-03	6,74E-05	-4,28E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,25E-03	2,73E-06	2,17E-07	2,17E-07	1,64E-06	2,73E-05	1,63E-08	-4,37E-06
ADP-fossil <sup>2</sup>	MJ	1,77E+02	9,28E-01	3,13E-01	3,13E-01	5,60E-01	1,11E+00	1,18E-02	-1,72E+01
WDP	m3	1,05E+01	5,91E-02	1,56E-02	1,56E-02	3,56E-02	8,03E-02	1,16E-03	-1,64E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,87E+01	1,31E-01	2,76E-02	2,76E-02	7,89E-02	2,25E-01	7,60E-04	-4,24E+00
PERM	MJ	1,72E+01	4,29E-02	8,07E-03	8,07E-03	2,59E-02	2,98E-01	3,50E-04	-7,46E-01
PERT	MJ	4,59E+01	1,74E-01	3,57E-02	3,57E-02	1,05E-01	5,23E-01	1,11E-03	-4,98E+00
PENRE	MJ	2,28E+02	1,18E+00	3,54E-01	3,54E-01	7,15E-01	1,57E+00	1,29E-02	-2,86E+01
PENRM	MJ	1,08E+02	1,12E+01	5,98E+00	5,98E+00	6,77E+00	1,84E+00	4,95E-02	-5,61E+00
PENRT	MJ	3,37E+02	1,24E+01	6,34E+00	6,34E+00	7,49E+00	3,41E+00	6,24E-02	-3,42E+01
SM	kg	6,39E+00	1,25E-02	4,69E-03	4,69E-03	7,52E-03	9,95E+00	2,20E-04	-6,04E+00
RSF	MJ	2,83E-01	3,71E-03	4,50E-04	4,50E-04	2,24E-03	6,87E-03	1,24E-05	-1,84E-01
NRSF	MJ	1,15E+00	1,51E-02	7,10E-04	7,10E-04	9,08E-03	5,29E-03	4,04E-05	2,00E+00
FW	m3	2,61E-01	1,41E-03	3,70E-04	3,70E-04	8,50E-04	1,89E-03	2,79E-05	-3,85E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	4,27E+01	2,73E-01	6,87E-02	6,87E-02	1,65E-01	1,05E+00	4,15E-03	-8,08E+00
NHWD	kg	3,20E+00	6,30E-01	4,68E-03	4,68E-03	3,80E-01	9,42E-02	1,47E-01	-1,13E+00
RWD	kg	2,93E-02	2,50E-04	7,29E-05	7,29E-05	1,50E-04	3,00E-04	8,92E-07	-7,68E-03
CRE	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
EE	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
MFER	kg	5,99E-01	2,85E-03	2,32E-03	2,32E-03	1,72E-03	3,10E-03	4,64E-05	-4,74E-03
MFR	kg	8,94E-01	1,04E-02	2,93E-03	2,93E-03	6,25E-03	1,45E-02	7,24E-05	-3,62E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

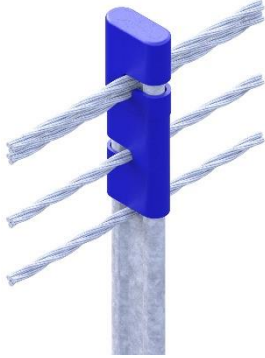
<sup>1</sup>The indicator includes all greenhouse gases included in GWP-total but excludes biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. This indicator is thus almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

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## SAFENCE 4RC-19 CC3.0 (1 meter)

Bi-directional cable barrier to be installed as median- and/or side barrier  
SAFENCE 4RC-19 utilizes 4 wire ropes and post distance of 3.0 m and conform to MASH16



Containment level	TL4, TL3
ASI	0.62
THIV	5.6 m/s
Working width	3.8 m, 2.7 m
Dynamic deflection	2.8 m, 2.7 m
Ground surface at installation site	Paved road, asphalt, gravel, or soil
Installation method	Punched holes fitted with steel sleeves to hold posts. Concrete footing or driven posts

### Content information

Product components	Weight, kg	Post-consumer material, weight-%	Renewable material, weight-%
Steel: S235, S355, AISI 304	8.22	60,3%	0 %
Glass reinforced nylon	0.20	0 %	0 %
Zinc (from HDG)	0.63	0 %	0 %
Total	9.04	54,7%	0 %
Packaging materials	Weight, kg	Weight-% (versus the product)	
Wood (euro flat pallet, cable drum)	0.4008		4.43 %
Polypropylene bag	0.0003		< 0.01 %
Total	0.4011		4.43 %

Dangerous substances from the candidate list of SVHC for Authorisation	EC No.	CAS No.	Weight-% per functional or declared unit
Total	0	0	0 %

BIOGENIC CARBON CONTENT	Unit	QUANTITY
Biogenic carbon content in product	kg C	0
Biogenic carbon content in packaging	kg C	0.20

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO<sub>2</sub>.

## Environmental Information

### RESULTS PER DECLARED UNIT

INDICATOR	UNIT	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq.	2,13E+01	7,19E-01	3,87E-01	3,87E-01	4,48E-01	2,19E-01	3,05E-01	-1,29E+00
GWP-fossil	kg CO2 eq.	2,17E+01	7,18E-01	3,87E-01	3,87E-01	4,47E-01	2,30E-01	3,05E-01	-1,25E+00
GWP-biogenic	kg CO2 eq.	-4,65E-01	1,27E-03	2,50E-04	2,50E-04	7,90E-04	-1,11E-02	1,26E-05	-3,36E-02
GWP-luluc	kg CO2 eq.	3,46E-02	2,80E-04	3,98E-05	3,98E-05	1,80E-04	2,80E-04	1,53E-06	-2,92E-03
GWP-GHG <sup>1</sup>	kg CO2 eq.	1,96E+01	7,12E-01	3,84E-01	3,84E-01	4,43E-01	2,26E-01	3,05E-01	-1,28E+00
ODP	kg CFC 11 eq.	1,08E-06	1,67E-07	8,27E-08	8,27E-08	1,04E-07	2,46E-08	5,20E-10	-1,16E-07
AP	mol H+ eq.	9,42E-02	3,63E-03	4,02E-03	4,02E-03	2,26E-03	2,51E-03	4,64E-05	-6,00E-03
EP-freshwater	kg PO43- eq.	6,22E-03	4,70E-05	1,21E-05	1,21E-05	2,92E-05	1,40E-04	4,75E-07	-1,31E-03
EP-marine	kg N eq.	2,26E-02	1,25E-03	1,78E-03	1,78E-03	7,80E-04	5,70E-04	2,28E-05	-1,11E-03
EP-terrestrial	mol N eq.	2,28E-01	1,37E-02	1,95E-02	1,95E-02	8,52E-03	6,17E-03	2,30E-04	-1,25E-02
POCP	kg NMVOC eq.	6,90E-02	3,84E-03	5,31E-03	5,31E-03	2,39E-03	1,67E-03	5,61E-05	-2,59E-03
ADP-minerals&metals <sup>2</sup>	kg Sb eq.	1,15E-03	2,42E-06	1,81E-07	1,81E-07	1,50E-06	2,50E-05	1,36E-08	-1,37E-06
ADP-fossil <sup>2</sup>	MJ	1,55E+02	8,23E-01	2,61E-01	2,61E-01	5,12E-01	1,01E+00	9,80E-03	-1,42E+01
WDP	m3	9,35E+00	5,24E-02	1,30E-02	1,30E-02	3,26E-02	7,30E-02	9,70E-04	-1,26E+00

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 = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwater = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrients reaching marine end compartment; EP-terrestrial = Eutrophication potential, Accumulated Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

PERE	MJ	2,65E+01	1,16E-01	2,30E-02	2,30E-02	7,22E-02	2,05E-01	6,40E-04	-3,53E+00
PERM	MJ	1,58E+01	3,81E-02	6,73E-03	6,73E-03	2,37E-02	2,73E-01	2,90E-04	-5,85E-01
PERT	MJ	4,24E+01	1,54E-01	2,97E-02	2,97E-02	9,59E-02	4,78E-01	9,30E-04	-4,12E+00
PENRE	MJ	2,03E+02	1,05E+00	2,95E-01	2,95E-01	6,54E-01	1,43E+00	1,07E-02	-2,35E+01
PENRM	MJ	9,47E+01	9,96E+00	4,99E+00	4,99E+00	6,20E+00	1,68E+00	4,13E-02	8,41E+00
PENRT	MJ	2,97E+02	1,10E+01	5,28E+00	5,28E+00	6,85E+00	3,11E+00	5,20E-02	-1,51E+01
SM	kg	6,12E+00	1,11E-02	3,91E-03	3,91E-03	6,88E-03	9,10E+00	1,80E-04	-5,22E+00
RSF	MJ	2,48E-01	3,29E-03	3,70E-04	3,70E-04	2,05E-03	6,27E-03	1,03E-05	-1,54E-01
NRSF	MJ	1,02E+00	1,34E-02	5,90E-04	5,90E-04	8,31E-03	4,82E-03	3,37E-05	1,67E+00
FW	m3	2,32E-01	1,25E-03	3,10E-04	3,10E-04	7,80E-04	1,72E-03	2,33E-05	-2,95E-02

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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water

HWD	kg	3,85E+01	2,42E-01	5,72E-02	5,72E-02	1,51E-01	9,56E-01	3,46E-03	-6,75E+00
NHWD	kg	2,88E+00	5,58E-01	3,90E-03	3,90E-03	3,48E-01	8,42E-02	1,22E-01	-9,71E-01
RWD	kg	2,77E-02	2,20E-04	6,07E-05	6,07E-05	1,40E-04	2,70E-04	7,44E-07	-6,43E-03
CRE	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
EE	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
MFER	kg	5,01E-01	2,53E-03	1,93E-03	1,93E-03	1,57E-03	2,77E-03	3,87E-05	-3,80E-03
MFR	kg	7,67E-01	9,18E-03	2,44E-03	2,44E-03	5,71E-03	1,32E-02	6,03E-05	-3,05E-01

HWD = Hazardous waste disposed; NHWD = Non-hazardous waste disposed; RWD = Radioactive waste disposed; CRE = Components for re-use; EE = Exported energy; MFER = Materials for energy recovery; MFR = Materials for recycling

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