



SCHUKO SOCKET OUTLETS BUSCH-ART LINEAR

# **Product Environmental Profile**

## **Environmental Product Declaration**





Document in compliance with ISO 14025: 2006 "Environmental labels and declarations. Type III environmental declarations"

ORGANIZATION		CONTACT INFORMATION	CONTACT INFORMATION					
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STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE			
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ABB is committed to continually promoting and embedding sustainability across its operations and value chain, aspiring to become a role model for others to follow. With its ABB Purpose, ABB is focusing on reducing harmful emissions, preserving natural resources and championing ethical and humane behavior.

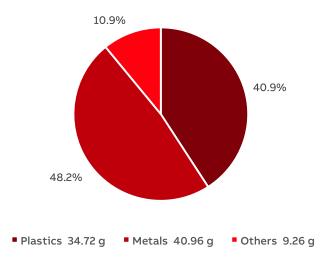


## **General Information**

Reference product	SCHUKO socket outlet 20 EUCB-44G (2CKA002013A5489).
Description of the product	The SCHUKO socket outlet is designed to provide electricity to electrical consumers with a plug of a load consuming 16 A under a voltage of 250 V. The socket outlet is designed for the indoor installation.
Functional unit	Connect/Disconnect the plug of a load consuming 16A under a voltage of 250V for 20 years while protecting the user from direct contact with live parts, in the Household/Commercial application areas, according to the appropriate use scenario, and for the reference service life of the product of 20 years
Other products covered	20 EUCB-44G (2CKA002013A5489); 20 EUCB-44M (2CKA002013A5490); 20 EUCB-45M (2CKA002013A5492); 20 EUCB-44G-500 (2CKA002013A5493); 20 EUCB-44M-500 (2CKA002013A5494); 20 EUCB-45M-500 (2CKA002013A5496); 20 EUKB-44G (2CKA002018A1575); 20 EUKB-44M (2CKA002018A1576); 20 EUKB-45M (2CKA002018A1578); 20 EUCB-F-44G (2CKA002013A5521); 20 EUCB-F-44M (2CKA002013A5522); 20 EUCB-F-45M (2CKA002013A5524); 20 EUCB-F-44G-500 (2CKA002013A5525); 20 EUCB-F-44M-500 (2CKA002013A5526); 20 EUCB-F-45M-500 (2CKA002013A5528); 20 EUCRB-44G (2CKA002013A5497); 20 EUCRB-44M (2CKA002013A5498); 20 EUCRB-45M (2CKA002013A5500); 20 EUCRB-44G-500 (2CKA002013A5501); 20 EUCRB-F-44M-500 (2CKA002013A5502); 20 EUCRB-F-45M-500 (2CKA002013A5504); 20 EUCRB-44G (2CKA002013A5509); 20 EUCRB-44M (2CKA002013A5510); 20 EUCRB-45M (2CKA002013A5512); 20 EUCNB-44G (2CKA002013A5509); 20 EUCNB-44M (2CKA002013A5510); 20 EUCNB-45M (2CKA002013A5512); 20 EUKBR-44G (2CKA002018A1579); 20 EUKBR-44M (2CKA002018A1580); 20 EUKBR-45M (2CKA002018A1582)

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE			
Approved	Public	ABBG-00515-V01.02-EN	1	en	2/10			
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## Total weight of Reference product

84.94 **g** 

Plastics as % of weight		Metals as % of	Metals as % of weight		weight
Name and CAS number	Weight%	Name and CAS number	Weight%	Name and CAS number	Weight%
Recycled PC (Ekalon 20)	18.6	Stainless steel	26.8	Carton	10.8
Aminoplast	15.3	Galvanized steel	20.0	Other	0.1
Polycarbonate	3.7	Brass	1.5	-	-
Polyethylene	2.1	-	-	-	-
Polyamide PA66	1.1	-	-	-	-

The reference product and other products in this range comply with the provisions of Low Voltage Directive 2014/35/EU, RoHS directive 2011/65/EU, Directive 2015/863(EU) and national legislation. Plastics used for the reference product are halogen-free materials (IEC/61249-2-21)

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	3/16
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# Additional Environmental Information

Manufacturing	Manufactured by Busch-Jaeger Elektro GmbH at the Lüdenscheid factory, ISO 14001 certified
Distribution	Transport between the last group distribution centre and an average delivery point in the sales area in Germany, Austria and Netherlands
Installation	i.e. no energy required during installation
Use	The power dissipation is 0.062 W and the product has a reference lifetime of 20 years. The use scenario described in the PSR is followed. At a load rate of 10% of the current and a use time rate of 30%, the power consumption over the lifetime of the the product is 651.7 Wh. A regional electricity mix is used to the fraction of the product to each country it is sold to according to sales data
End of life	The end-of-life stage is modelled according to PCR-ed4-EN-2021 09 06
Benefits and loads beyond the system boundaries	n.a.

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE			
Approved	Public	ABBG-00515-V01.02-EN	1	en	4/16			
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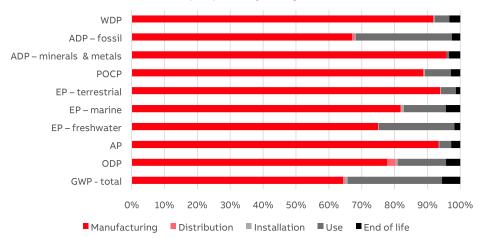
# **Environmental Impacts**

Reference lifetime	20 years
Product category	PCR-ed4-EN-2021 09 06 PSR-005-ed3-EN-2023 06 06 Sockets, Power sockets, Household/Commercial
Installation elements	No additional elements needed during installation
Use scenario	from the used PEP PSR-0005-ed3
Geographical representativeness	Manufacturing: Germany Distribution, installation, use and end of life : Germany, Austria, Netherlands
Technological representativeness	Materials and process data are specific for the production of the SCHUKO® socket
Software and database used	SimaPro 9.4, ecoinvent 3.8
Energy model used	
Manufacturing	Energy mix of medium voltage, solar and CHP for DE
Installation	Data used to model installation element are representative of european electricity mix
Use	Electricity, low voltage, consumption mix at consumer
End of life	Data used to model installation element are representative of european electricity mix

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE			
Approved	Public	ABBG-00515-V01.02-EN	1	en	5/16			
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## Common base of mandatory indicators





#### **Environmental impact indicators**

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Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
GWP-total	kg CO <sub>2</sub> eq.	1.22E+00	7.87E-01	6.92E-03	9.64E-03	3.51E-01	6.85E-02	-
GWP-fossil	kg CO <sub>2</sub> eq.	1.20E+00	7.90E-01	6.91E-03	5.70E-03	3.25E-01	6.81E-02	-
GWP-biogenic	kg CO <sub>2</sub> eq.	2.53E-02	-4.34E-03	7.35E-06	3.89E-03	2.54E-02	2.81E-04	-
GWP-luluc	kg CO <sub>2</sub> eq.	1.55E-03	1.04E-03	2.59E-06	4.93E-05	4.16E-04	3.43E-05	-
GWP-fossil = Globa GWP-biogenic = Gl GWP-luluc = Global	obal Warming Pot	ential bioge	enic	ge				
ODP	kg CFC-11 eq.	6.83E-08	5.31E-08	1.72E-09	4.39E-10	1.00E-08	2.97E-09	-
ODP = Depletion p	otential of the str	atospheric o	ozone layer					
AP	H+ eq.	2.33E-02	2.17E-02	2.20E-05	1.62E-05	8.46E-04	6.50E-04	-
AP = Acidification	ootential, Accumu	lated Excee	dance					
EP-freshwater	kg P eq.	2.00E-03	1.50E-03	4.50E-07	2.19E-06	4.62E-04	3.52E-05	-
EP-marine	kg N eq.	1.88E-03	1.54E-03	4.94E-06	1.50E-05	2.40E-04	8.33E-05	-
EP-terrestrial	mol N eq.	3.92E-02	3.68E-02	5.40E-05	4.61E-05	1.78E-03	5.46E-04	-
EP-freshwater = Eu EP-marine = Eutrop EP-terrestrial = Eut		al, fraction c	f nutrients reach	ing marine end		ment		
				LE				
РОСР	kg NMVOC eq.	5.69E-03	5.04E-03	2.12E-05	7.83E-06	4.55E-04	1.63E-04	-
	eq.		5.04E-03		7.83E-06	4.55E-04	1.63E-04	-
POCP	eq.		5.04E-03		7.83E-06 2.42E-08	4.55E-04 2.87E-06	1.63E-04 1.39E-05	-
POCP  POCP = Formation  ADP-minerals &	eq.	ospheric ozo	5.04E-03	2.12E-05				- -
POCP = Formation ADP-minerals & metals	eq. potential of tropo  kg Sb eq.  MJ  stals = Abiotic dep	4.05E-04 1.54E+01 pletion potes	5.04E-03 one 3.88E-04 1.03E+01 ntial for non-fossi	2.12E-05 1.65E-08 1.13E-01	2.42E-08	2.87E-06	1.39E-05	- - -

REGISTRATION NUMBER

ABBG-00515-V01.02-EN

LANG.

1 en

PAGE

6/16

### Common base of mandatory indicators

#### Inventory flows indicator - Resource use indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
PERE	МЈ	2.67E+00	1.47E+00	1.43E-03	1.05E-02	1.13E+00	5.30E-02	-
PERM	МЈ	3.50E-01	3.50E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
PERT	МЈ	3.02E+00	1.82E+00	1.43E-03	1.05E-02	1.13E+00	5.30E-02	-
PENRE	МЈ	1.46E+01	9.52E+00	1.13E-01	5.97E-02	4.48E+00	4.03E-01	-
PENRM	МЈ	7.90E-01	7.90E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
PENRT	МЈ	1.54E+01	1.03E+01	1.13E-01	5.97E-02	4.48E+00	4.03E-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

 ${\tt PENRE} = {\tt Use} \ of \ non-renewable \ primary \ energy \ excluding \ non-renewable \ primary \ energy \ resources \ used \ as \ raw \ materials$ 

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total Use of non-renewable primary energy resources

# Inventory flows indicator – Indicators describing the use of secondary materials, water, and energy resources

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
SM	kg	1.58E-02	1.58E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
RSF	МЈ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
NRSF	МЈ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
FW	m³	1.62E-02	1.31E-02	1.34E-05	6.14E-05	2.55E-03	5.19E-04	-

SM = Use of secondary material

RSF = Use of renewable secondary fuels

NRSF = Use of non-renewable secondary fuels

FW = Use of net fresh water

#### Inventory flows indicator - Waste category indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Hazardous waste disposed	kg	6.92E-04	6.84E-04	2.72E-07	7.95E-08	6.87E-06	5.19E-07	-
Non- hazardous waste disposed	kg	4.11E-01	3.28E-01	1.05E-02	2.24E-03	2.17E-02	4.89E-02	-
Radioactive waste disposed	kg	5.23E-05	3.12E-05	7.62E-07	1.16E-07	1.80E-05	2.32E-06	-

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE		
Approved	Public	ABBG-00515-V01.02-EN	1	en	7/16		
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## Common base of mandatory indicators

### Inventory flows indicator – Output flow indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Components for re- use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
Materials for recycling	kg	4.22E-02	4.45E-03	0.00E+00	8.28E-03	0.00E+00	2.94E-02	-
Materials for energy recovery	kg	1.89E-02	9.68E-04	0.00E+00	1.50E-03	0.00E+00	1.65E-02	-
Exported energy	МЈ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-

## Inventory flow indicator – other indicators

Indicator	Unit	Total	Manu- facturing	Distri- bution	Installation	Use	End of life	Bene- fits
Biogenic carbon content of the product	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-
Biogenic carbon content of the associated packaging	kg of C	5.80E-03	5.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	-

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE		
Approved	Public	ABBG-00515-V01.02-EN	1	en	8/16		
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# Environmental impact of using recycled polycarbonate (Ekalon 20)

The C-plate component of each product covered by this EPD is made of the recycled polycarbonate (Ekalon 20) material. The replacement of the fossil based PC with the recycled one allow to decrease global warming potential of the products by 11%. It has also a substantial, positive influence on other environmental indicators as presented in the table below.

			Total	
Impact category	Unit	Virgin	Recycled	Diff.
GWP-total	kg CO2 eq	1.37E+00	1.22E+00	11.0%
GWP- fossil	kg CO2 eq	1.35E+00	1.20E+00	11.2%
GWP-biogenic	kg CO2 eq	2.54E-02	2.53E-02	0.4%
GWP-luluc	kg CO2 eq	1.55E-03	1.55E-03	0.4%
ODP	kg CFC11 eq	6.96E-08	6.83E-08	1.8%
АР	mol H+ eq	2.39E-02	2.33E-02	2.5%
EP-freshwater	kg P eq	1.99E-03	1.99E-03	0.0%
EP-marine	kg N eq	1.97E-03	1.86E-03	5.2%
EP-terrestrial	mol N eq	4.02E-02	3.91E-02	2.8%
РОСР	kg NMVOC eq	6.08E-03	5.69E-03	6.3%
ADP-minerals	kg Sb eq	4.05E-04	4.05E-04	0.1%
ADP-fossil	МЭ	1.71E+01	1.54E+01	10.2%
WDP	m3	5.47E-01	5.07E-01	7.2%
PERE	MJ	2.67E+00	2.67E+00	0.0%
PERM	MJ	3.50E-01	3.50E-01	0.0%
PERT	MJ	3.04E+00	3.02E+00	0.8%
PENRE	MJ	1.46E+01	1.46E+01	0.0%
PENRM	MJ	7.90E-01	7.90E-01	0.0%
PENRT	MJ	1.71E+01	1.54E+01	10.2%
SM	kg	0.00E+00	1.58E-02	-
RSF	МЭ	0.00E+00	0.00E+00	-
NRSF	МЭ	0.00E+00	0.00E+00	-
FW	m3	1.72E-02	1.62E-02	5.6%
HWD	kg	6.92E-04	6.92E-04	0.0%
NHWD	kg	4.27E-01	4.11E-01	3.7%
RWD	kg	5.29E-05	5.23E-05	1.0%
CRU	kg	0.00E+00	0.00E+00	-
MFR	kg	0.00E+00	4.22E-02	-
MER	kg	0.00E+00	1.89E-02	-
EE	МЈ	0.00E+00	0.00E+00	-

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	9/16

## **Extrapolation factors**

For other products than the Reference product covered by this PEP, the environmental impacts for each phase of the lifecycle are obtained by multiplying the values of the Reference product by the following coefficients.

#### Scaling factors for manufacturing stage

Impact	20 EUCB-44G (2CKA002013A5489) 20 EUCB-44M (2CKA002013A5490) 20 EUCB-45M (2CKA002013A5492) 20 EUCB-44G-500 (2CKA002013A5493) 20 EUCB-44M-500 (2CKA002013A5494) 20 EUCB-45M-500	20 EUKB-44G (2CKA002013A5489) 20 EUKB-44M (2CKA002013A5490) 20 EUKB-45M (2CKA002013A5492)	20 EUCB-F-44G (2CKA002013A5521) 20 EUCB-F-44M (2CKA002013A5522) 20 EUCB-F-45M (2CKA002013A5524) 20 EUCB-F-44G-500 (2CKA002013A5525) 20 EUCB-F-44M-500 (2CKA002013A5526) 20 EUCB-F-45M-500	20 EUCRB-44G (2CKA002013A5497) 20 EUCRB-44M (2CKA002013A5498) 20 EUCRB-45M (2CKA002013A5500) 20 EUCRB-44G-500 (2CKA002013A5501) 20 EUCRB-F-44M-500 (2CKA002013A5502) 20 EUCRB-F-45M-500	20 EUCNB-44G (2CKA002013A5509) 20 EUCNB-44M (2CKA002013A5510) 20 EUCNB-45M (2CKA002013A5512)	20 EUKBR-44G (2CKA002018A1579) 20 EUKBR-44M (2CKA002018A1580) 20 EUKBR-45M (2CKA002018A1582)
category	(2CKA002013A5496)		(2CKA002013A5528)	(2CKA002013A5504)		
GWP-total	1.00	1.19	0.85	0.83	1.18	0.89
GWP- fossil	1.00	1.19	0.85	0.84	1.17	0.90
GWP-biogenic	1.00	0.44	1.48	1.58	-1.32	1.18
GWP-luluc	1.00	1.19	0.83	0.81	1.13	0.80
ODP	1.00	1.06	0.67	0.77	1.02	0.79
АР	1.00	1.25	0.83	0.92	1.24	0.85
EP-freshwater	1.00	1.31	0.86	0.95	1.29	0.88
EP-marine	1.00	1.20	0.84	0.86	1.18	0.82
EP-terrestrial	1.00	1.11	0.74	0.83	1.10	0.80
POCP	1.00	1.22	0.85	0.88	1.21	0.83
ADP-minerals	1.00	1.32	0.86	0.95	1.31	0.83
ADP-fossil	1.00	1.17	0.80	0.84	1.15	0.89
WDP	1.00	1.21	0.78	0.88	1.21	0.82
PERE	1.00	1.31	0.88	0.86	1.15	0.92
PERM	1.00	1.00	1.00	0.86	1.00	1.00
PERT	1.00	1.25	0.90	1.00	1.12	0.94
PENRE	1.00	1.18	0.79	0.89	1.16	0.88
PENRM	1.00	1.00	1.00	0.82	1.00	1.00
PENRT	1.00	1.17	0.80	1.00	1.15	0.89
SM	1.00	1.96	1.00	1.00	0.97	1.96
RSF	1.00	1.00	1.00	1.00	1.00	1.00
NRSF	1.00	1.00	1.00	1.00	1.00	1.00
FW	1.00	1.21	0.77	0.87	1.20	0.83
HWD	1.00	1.21	0.74	0.84	1.21	0.64
NHWD	1.00	1.14	0.81	0.76	1.11	0.81
RWD	1.00	1.14	0.77	0.78	1.08	0.81
CRU	1.00	1.00	1.00	1.00	1.00	1.00
MFR	1.00	1.00	1.00	1.00	1.00	1.00
MER	1.00	1.00	1.00	1.00	1.00	1.00
EE	1.00	1.00	1.00	1.00	1.00	1.00

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	10/16

### Scaling factors for distribution stage

	20 EUCB-44G	20 EUKB-44G	20 EUCB-F-44G	20 EUCRB-44G	20 EUCNB-44G	20 EUKBR-44G
	(2CKA002013A5489)	(2CKA002013A5489)	(2CKA002013A5521)	(2CKA002013A5497)	(2CKA002013A5509)	(2CKA002018A1579)
	20 EUCB-44M	20 EUKB-44M	20 EUCB-F-44M	20 EUCRB-44M	20 EUCNB-44M	20 EUKBR-44M
	(2CKA002013A5490)	(2CKA002013A5490)	(2CKA002013A5522)	(2CKA002013A5498)	(2CKA002013A5510)	(2CKA002018A1580)
	20 EUCB-45M (2CKA002013A5492)	20 EUKB-45M (2CKA002013A5492)	20 EUCB-F-45M (2CKA002013A5524)	20 EUCRB-45M (2CKA002013A5500)	20 EUCNB-45M (2CKA002013A5512)	20 EUKBR-45M (2CKA002018A1582)
	20 EUCB-44G-500	(ECRAOUZUISAS49Z)	20 EUCB-F-44G-500	20 EUCRB-44G-500	(ECRAOUZUISASSIZ)	(ECRAOUZUIBAI36Z)
	(2CKA002013A5493)		(2CKA002013A5525)	(2CKA002013A5501)		
	20 EUCB-44M-500		20 EUCB-F-44M-500	20 EUCRB-F-44M-500		
	(2CKA002013A5494)		(2CKA002013A5526)	(2CKA002013A5502)		
Impact	20 EUCB-45M-500		20 EUCB-F-45M-500	20 EUCRB-F-45M-500		
category	(2CKA002013A5496)		(2CKA002013A5528)	(2CKA002013A5504)		
GWP-total						
GWP- fossil						
GWP-biogenic						
GWP-luluc						
ODP						
АР						
EP-freshwater						
EP-marine						
EP-terrestrial						
РОСР						
ADP-minerals						
ADP-fossil						
WDP						
PERE		_				
PERM	1.00	1.12	0.94	0.91	1.13	1.03
PERT						
PENRE						
PENRM						
PENRT						
SM						
RSF						
NRSF						
FW						
HWD						
NHWD						
RWD						
CRU						
MFR						
MER						
EE						

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	11/16

### Scaling factors for installation stage

	20 EUCB-44G	20 EUKB-44G	20 EUCB-F-44G	20 EUCRB-44G	20 EUCNB-44G	20 EUKBR-44G
	(2CKA002013A5489)	(2CKA002013A5489)	(2CKA002013A5521)	(2CKA002013A5497)	(2CKA002013A5509)	(2CKA002018A1579)
	20 EUCB-44M (2CKA002013A5490)	20 EUKB-44M (2CKA002013A5490)	20 EUCB-F-44M (2CKA002013A5522)	20 EUCRB-44M (2CKA002013A5498)	20 EUCNB-44M (2CKA002013A5510)	20 EUKBR-44M (2CKA002018A1580)
	20 EUCB-45M	20 EUKB-45M	20 EUCB-F-45M	20 EUCRB-45M	20 EUCNB-45M	20 EUKBR-45M
	(2CKA002013A5492)	(2CKA002013A5492)	(2CKA002013A5524)	(2CKA002013A5500)	(2CKA002013A5512)	(2CKA002018A1582)
	20 EUCB-44G-500		20 EUCB-F-44G-500	20 EUCRB-44G-500		
	(2CKA002013A5493) 20 EUCB-44M-500		(2CKA002013A5525) 20 EUCB-F-44M-500	(2CKA002013A5501) 20 EUCRB-F-44M-500		
	(2CKA002013A5494)		(2CKA002013A5526)	(2CKA002013A5502)		
Impact	20 EUCB-45M-500		20 EUCB-F-45M-500	20 EUCRB-F-45M-500		
category	(2CKA002013A5496)		(2CKA002013A5528)	(2CKA002013A5504)		
GWP-total	1.00	1.34	1.18	1.27	0.75	1.31
GWP- fossil	1.00	1.33	1.10	1.26	0.82	1.30
GWP-biogenic	1.00	1.36	1.29	1.29	0.63	1.33
GWP-luluc	1.00	1.25	1.20	1.19	0.52	1.23
ODP	1.00	1.27	1.18	1.21	0.58	1.24
AP	1.00	1.27	1.16	1.21	0.60	1.24
EP-freshwater	1.00	1.25	1.17	1.20	0.56	1.23
EP-marine	1.00	1.23	1.14	1.18	0.56	1.21
EP-terrestrial	1.00	1.28	1.17	1.22	0.61	1.25
РОСР	1.00	1.28	1.14	1.22	0.66	1.25
ADP-minerals	1.00	1.25	1.17	1.20	0.57	1.23
ADP-fossil	1.00	1.26	1.16	1.20	0.59	1.24
WDP	1.00	1.24	1.15	1.19	0.57	1.22
PERE	1.00	1.00	1.00	1.00	1.00	1.00
PERM	1.00	1.00	1.00	1.00	1.00	1.00
PERT	1.00	1.00	1.00	1.00	1.00	1.00
PENRE	1.00	1.00	1.00	1.00	1.00	1.00
PENRM	1.00	1.00	1.00	1.00	1.00	1.00
PENRT	1.00	1.00	1.00	1.00	1.00	1.00
SM	1.00	1.00	1.00	1.00	1.00	1.00
RSF	1.00	1.00	1.00	1.00	1.00	1.00
NRSF	1.00	1.00	1.00	1.00	1.00	1.00
FW	1.00	1.24	1.15	1.19	0.57	1.22
HWD	1.00	1.27	1.18	1.21	0.59	1.25
NHWD	1.00	2.28	1.95	2.04	1.73	2.18
RWD	1.00	1.28	1.09	1.22	0.74	1.26
CRU	1.00	1.00	1.00	1.00	1.00	1.00
MFR	1.00	1.00	1.00	1.00	1.00	1.00
MER	1.00	1.00	1.00	1.00	1.00	1.00
EE	1.00	1.00	1.00	1.00	1.00	1.00

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	12/16

### Scaling factors for use stage

	20 EUCB-44G	20 EUKB-44G	20 EUCB-F-44G	20 EUCRB-44G	20 EUCNB-44G	20 EUKBR-44G
	(2CKA002013A5489)	(2CKA002013A5489)	(2CKA002013A5521)	(2CKA002013A5497)	(2CKA002013A5509)	(2CKA002018A1579)
	20 EUCB-44M	20 EUKB-44M	20 EUCB-F-44M	20 EUCRB-44M	20 EUCNB-44M	20 EUKBR-44M
	(2CKA002013A5490)	(2CKA002013A5490)	(2CKA002013A5522)	(2CKA002013A5498)	(2CKA002013A5510)	(2CKA002018A1580)
	20 EUCB-45M (2CKA002013A5492)	20 EUKB-45M	20 EUCB-F-45M	20 EUCRB-45M	20 EUCNB-45M	20 EUKBR-45M
		(2CKA002013A5492)	(2CKA002013A5524)	(2CKA002013A5500)	(2CKA002013A5512)	(2CKA002018A1582)
	20 EUCB-44G-500 (2CKA002013A5493)		20 EUCB-F-44G-500 (2CKA002013A5525)	20 EUCRB-44G-500 (2CKA002013A5501)		
	20 EUCB-44M-500		20 EUCB-F-44M-500	20 EUCRB-F-44M-500		
	(2CKA002013A5494)		(2CKA002013A5526)	(2CKA002013A5502)		
Impact	20 EUCB-45M-500		20 EUCB-F-45M-500	20 EUCRB-F-45M-500		
category	(2CKA002013A5496)		(2CKA002013A5528)	(2CKA002013A5504)		
GWP-total						
GWP- fossil						
GWP-biogenic						
GWP-luluc						
ODP						
AP						
EP-freshwater						
EP-marine						
EP-terrestrial						
РОСР						
ADP-minerals						
ADP-fossil						
WDP						
PERE	1.00	100	1.00	1.00	1.00	1.00
PERM	1.00	1.00	1.00	1.00	1.00	1.00
PERT						
PENRE		i				
PENRM PENRT		 				
SM						
RSF		i				
NRSF						
FW						
HWD						
NHWD						
RWD						
CRU						
MFR						
MER						
EE						

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	13/16

#### Scaling factors for end of life stage

	20 EUCB-44G	20 EUKB-44G	20 EUCB-F-44G	20 EUCRB-44G	20 EUCNB-44G	20 EUKBR-44G
	(2CKA002013A5489)	(2CKA002013A5489)	(2CKA002013A5521)	(2CKA002013A5497)	(2CKA002013A5509)	(2CKA002018A1579)
	20 EUCB-44M (2CKA002013A5490)	20 EUKB-44M (2CKA002013A5490)	20 EUCB-F-44M (2CKA002013A5522)	20 EUCRB-44M (2CKA002013A5498)	20 EUCNB-44M (2CKA002013A5510)	20 EUKBR-44M (2CKA002018A1580)
	20 EUCB-45M	20 EUKB-45M	20 EUCB-F-45M	20 EUCRB-45M	20 EUCNB-45M	20 EUKBR-45M
	(2CKA002013A5492)	(2CKA002013A5492)	(2CKA002013A5524)	(2CKA002013A5500)	(2CKA002013A5512)	(2CKA002018A1582)
	20 EUCB-44G-500		20 EUCB-F-44G-500	20 EUCRB-44G-500		
	(2CKA002013A5493) 20 EUCB-44M-500		(2CKA002013A5525) 20 EUCB-F-44M-500	(2CKA002013A5501) 20 EUCRB-F-44M-500		
	(2CKA002013A5494)		(2CKA002013A5526)	(2CKA002013A5502)		
Impact	20 EUCB-45M-500		20 EUCB-F-45M-500	20 EUCRB-F-45M-500		
category	(2CKA002013A5496)		(2CKA002013A5528)	(2CKA002013A5504)		
GWP-total	1.00	1.35	0.82	0.95	1.05	1.20
GWP- fossil	1.00	1.35	0.82	0.95	1.05	1.20
GWP-biogenic	1.00	1.19	0.86	0.87	1.13	0.84
GWP-luluc	1.00	1.20	0.89	0.89	1.17	0.75
ODP	1.00	1.25	0.91	0.90	1.13	0.95
AP	1.00	1.23	0.66	0.98	1.22	0.65
EP-freshwater	1.00	1.22	0.72	0.95	1.21	0.65
EP-marine	1.00	1.33	0.78	0.96	1.08	1.08
EP-terrestrial	1.00	1.24	0.77	0.94	1.18	0.77
POCP	1.00	1.24	0.77	0.94	1.18	0.77
ADP-minerals	1.00	1.24	0.60	1.00	1.24	0.60
ADP-fossil	1.00	1.22	0.92	0.89	1.15	0.84
WDP	1.00	1.23	0.83	0.92	1.16	0.79
PERE	1.00	1.00	1.00	1.00	1.00	1.00
PERM	1.00	1.00	1.00	1.00	1.00	1.00
PERT	1.00	1.00	1.00	1.00	1.00	1.00
PENRE	1.00	1.00	1.00	1.00	1.00	1.00
PENRM	1.00	1.00	1.00	1.00	1.00	1.00
PENRT	1.00	1.00	1.00	1.00	1.00	1.00
SM	1.00	1.00	1.00	1.00	1.00	1.00
RSF	1.00	1.00	1.00	1.00	1.00	1.00
NRSF	1.00	1.00	1.00	1.00	1.00	1.00
FW	1.00	1.22	0.86	0.91	1.16	0.81
HWD	1.00	1.25	0.89	0.91	1.14	0.94
NHWD	1.00	1.29	0.89	0.92	1.08	1.07
RWD	1.00	1.21	0.94	0.88	1.14	0.86
CRU	1.00	1.00	1.00	1.00	1.00	1.00
MFR	1.00	1.00	1.00	1.00	1.00	1.00
MER	1.00	1.00	1.00	1.00	1.00	1.00
EE	1.00	1.00	1.00	1.00	1.00	1.00

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.02-EN	1	en	14/16

## **Environmental Impact Indicator Glossary**

#### Impact indicators

Indicator	Description	Distri- bution
Global warming potential (GWP) - total	Indicator of potential global warming caused by emissions to air contributing to the greenhouse effect. The total global warming potential (GWP-total) is the sum of three sub-categories of climate change.  GWP-total = GWP-fossil + GWP-biogenic + GWP- land use and land use change	kg CO₂ eq.
Ozone depletion (ODP)	Emissions to air that contribute to the destruction of the stratospheric ozone layer	kg CFC-11 eq.
Acidification of soil and water (A)	Acidification of soils and water caused by the release of certain gases to the atmosphere, such as nitrogen oxides and sulphur oxides	H+ eq.
Eutrophication (E)	Indicator of the contribution to eutrophication of water by the enrichment of the aquatic ecosystem with nutritional elements, e.g. industrial or domestic effluents, agriculture, etc. This indicator is divided to three: freshwater, marine and terrestrial.	kg P eq., kg N eq., mole N eq.
Photochemical ozone creation (POCP)	Indicator of emissions of gases that affect the creation of photochemical ozone in the lower atmosphere (smog) because of the rays of the sun.	kg NMVOC eq.
Depletion of abiotic resources – elements (ADPe)	Indicator of the depletion of natural non-fossil resources	kg Sb eq.
Depletion of abiotic resources – fossil fuels (ADPf)	The use of non-renewable fossil resources in an unsustainable way (e.g. from material to waste)	MJ (lower heating value)
Water Deprivation potential (WDP)	Deprivation-weighted water consumption. Assesses the potential of water deprivation, to either humans or ecosystems, building on the assumption that the less water remaining available per area, the more likely another user will be deprived.	m³ eq. depr.

#### **Resource use indicators**

Indicator	Description	Distri- bution
Total use of primary energy	Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) + Total use of renewable primary energy re-sources (primary energy and primary energy resources used as raw materials)	MJ (lower heating value)

STATUS	SECURITY LEVEL	REGISTRATION NUMBER	REV.	LANG.	PAGE
Approved	Public	ABBG-00515-V01.01-EN	1	en	15/16
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		h XP C08-100-1 :2016 or EN 50693:2019 e present PEP may not be compared with com	nponents from any other p	orogram
	Document in compliant environmental declarate	nce with ISO 14025: 2006 "Environmental labe	els and declarations. Type	PORT

STATUS	SECURITY LEVEL	REGISTRATION NUMBER		LANG.	PAGE	
Approved	Public	ABBG-00515-V01.01-EN	1	en	16/16	
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