



# **Product Environmental Profile**

Radio DAB+, Bt., S.1/B.x pw. Matt



## **Company information**

#### Berker GmbH & Co. KG

Zum Gunterstal 66440 Blieskastel www.hagergroup.com

A question concerning the Product Environmental Profile: infopep@hager.com

### References covered

29841404;	29841606;	29846084;	29846086;	29846089;
29847003;	29847004;	29847006;	29847009;	29848989;
29849909;	30841404;	30841606;	30846084;	30846086;
30846089;	30847003;	30847004;	30847006;	30847009;
30848989: 3	30849909			

## **Methodology**

PEP has been performed according to the PCR version PEP-PCR-ed3-2015 04 02 and PSR version 0 issued by the PEP ecopassport program.

For further information, please see the website of the program www.pep-ecopassport.org

### Reference product

Reference product identification 30849909

### **Functional unit**

Radio Touch UP DAB+, Bluetooth S.1/B.x polar white matt

**PSR** product Category:

0

The functional unit is based on the use scenario recommended by the PCR for the category of the reference product.

### **Materials and substances**

All useful measures have been adopted to ensure that the materials used in the composition of the product do not contain any substances banned by the legislation in force at the time of marketing.

Plastics			Meta	ls		Others		
	g	%		g	%		g	%
PA66	15.40	8.2%	Copper	5.74	3.1%	Cardboard + Paper	80.60	43.1%
PC	10.84	5.8%	Ferrites	3.43	1.8%	Glass	13.98	7.5%
ABS	10.00	5.3%	Steel	2.61	1.4%	Silicon	8.59	4.6%
PE-LD	5.60	3.0%	Tin	1.79	1.0%	Glass	6.59	3.5%
Epoxy resin	4.68	2.5%	Aluminium	1.66	0.9%	flat glass, uncoated	1.78	0.9%
Other	7.45	4.0%	Other	5.17	2.8%	Other	5.89	3.2%
Total mass of reference product :			187.014 q					

### **Manufacturing**

These products are manufactured by a site that has received an environmental certification ISO 14001.

#### **Distribution**

The packaging has been designed in accordance with current regulations. In particular, the European directive 94/62/CE relative to packaging and packaging waste.

The used packaging is 100% recyclable or recoverable.

Packaging and logistic flows are continuously improved in order to reduce their impact.

#### Installation

#### Installation processes

The processes to install the product are not considered in this study because of their weak impact compared to the other life cycles steps.

#### Installation elements (non delivered with the product)

Elements non delivered with the product and needed to install the product are not considered.

#### Use

For the considered scenario, the product has an average power of 1.500 W in active mode during 30% of the time and an average power of 0.450 W in passive mode during 70% of the time. This corresponds to a total energy consumption of 67.014 kWh for the use span of 10 years.

Energy model of the use phase:

Europe

Consumables and maintenance:

None

## **End of life**

Considering the complexity and the lack of knowledge of the electric and electronic recycling channel and processes, the standard scenario set in the PCR is considered.

The recycling potential of the product is: 35%. The calculation of this rate is based on the method of the IEC/TR 62635.

## **Environmental impacts**

Evaluation of the environmental impact covers the following life cycle stages: raw materials + manufacturing (RMM), distribution (D), installation (I), use (U) and end of life (EoL).

All calculations are done with EIME software version 5.9.4 with the database version CODDE-2022-01.

PEP representative of the covered products marketed in: Europe

Energy models considered for each phase

Manufacturing	Distribution	Installation	Use	End Of Life
RMM	D	1.0	U	EoL
Europe	-	Europe	Europe	Europe

#### **Environmental impact indicators**

Indicators	Unit	Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL	GLOBAL
Global Warming	kg CO <sub>2</sub> eq.	1.69E+02	3.36E-02	5.20E-02	3.96E+01	7.05E-03	2.09E+02
Ozone Depletion	kg CFC-11 eq.	2.24E-05	6.81E-11	1.57E-10	9.61E-06	3.39E-10	3.20E-05
Acidification of soil and water	kg SO2 eq	1.84E-01	1.51E-04	2.58E-05	2.99E-01	2.41E-05	4.83E-01
Eutrophication	kg PO <sub>4</sub> 3- eq.	5.69E-02	3.47E-05	1.11E-04	1.12E-02	2.30E-05	6.83E-02
Photochemical Ozone Creation	kg C <sub>2</sub> H <sub>4</sub> eq.	1.82E-02	1.07E-05	1.29E-05	1.41E-02	2.18E-06	3.23E-02
Depletion of abiotic resources - elements	kg Sb eq	1.01E-03	1.35E-09	2.43E-10	1.80E-06	3.79E-10	1.01E-03
Depletion of abiotic resources – fossil fuels	MJ	1.73E+03	4.72E-01	7.33E-02	4.08E+02	7.27E-02	2.14E+03
Water Pollution	m³	1.42E+04	5.53E+00	3.30E+00	1.66E+03	7.61E-01	1.59E+04
Air Pollution	m³	1.11E+04	1.38E+00	6.67E-01	1.70E+03	8.84E-01	1.28E+04

#### Resource use indicators

Indicators	Unit	Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL	GLOBAL
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials		7.30E+01	6.34E-04	6.71E-04	5.74E+01	1.41E-03	1.30E+02
Use of renewable primary energy resources as raw materials	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Total use of renewable primary energy resources	MJ	7.30E+01	6.34E-04	6.71E-04	5.74E+01	1.41E-03	1.30E+02
Use of non-renewable primary energy, excluding non renewable primary energy resources used as raw materials		1.79E+03	4.75E-01	7.71E-02	7.44E+02	8.62E-02	2.53E+03
Use of non-renewable primary energy resources as raw materials	MJ	4.21E+01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.21E+01
Total use of non renewable primary energy resources	MJ	1.83E+03	4.75E-01	7.71E-02	7.44E+02	8.62E-02	2.57E+03
Total use of primary energy	MJ	1.90E+03	4.75E-01	7.78E-02	8.02E+02	8.76E-02	2.70E+03
Use of secondary materials	kg	7.54E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.54E-02
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of non-renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Net fresh water use	m³	1.68E+00	3.01E-06	2.76E-06	1.03E-01	7.97E-06	1.78E+00

#### Waste category indicators

Indicators	Unit	Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL	GLOBAL
Hazardous waste disposed	kg	3.84E+01	1.19E-03	8.82E-02	1.48E+02	4.68E-02	1.87E+02
Non-hazardous waste disposed	kg	1.88E+01	0.00E+00	4.91E-05	0.00E+00	4.54E-02	1.88E+01
Radioactive waste disposed	kg	1.64E-02	8.51E-07	5.58E-07	1.21E-01	1.80E-06	1.37E-01

#### **Output flow indicators**

Indicators	Unit	Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL	GLOBAL
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	1.00E-03	0.00E+00	0.00E+00	0.00E+00	2.20E-03	3.20E-03
Materials for energy recovery	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

no extrapolation rules entered

## Verification

Posiciration N°: HACE 00724 V04 04 EN	Drafting Rules PEP-PCR-ed3-2015 04 02				
Registration N°: HAGE-00731-V01.01-EN	Supplemented by				
Verifier accreditation N°: VH36	Information and reference documents: www.pep-ecopassport.org				
Date of issue: 12-2022	Validity period: 5 years				
Independent verification of the declaration and data, in compliance with ISO 14025 : 2010					
Internal ● External ○					
The PCR review was conducted by a panel of experts chaired by Philippe Osset (SOLINNEN)					
PEP are compliant with XP C08-100-1:2014 The elements of the present PEP cannot be compared with elements from another program  PEP are compliant with XP C08-100-1:2014  The elements of the present PEP cannot be compared with elements from another program					
Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »					

#### Nota:

All numerical values indicated in this document may vary and depend of many factors such as the tolerance related to materials, the usage and environment conditions of the products, installation

The responsibility of the company, issuing this document, can never be engaged if differences would be noticed between the values given by this document and real ones, whatever the causes and/or consequences would be.