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SHI PRODUCT PASSPORT

Find products. Certify buildings.

SHI Product Passport No.:

15313-10-1000

Hager tehalit Leitungsführungs- und Raumanschlusssysteme aus PVC für Wohn-, Büro- und Zweckbauten

Product group: Wires - Electrical installation - Cable routing / cable ducts

Better buildings Better tomorrows :hager

Hager Vertriebsgesellschaft mbH & Co. KG
Zum Gunterstal
66440 Blieskastel

Product qualities:

- QNG Qualitätssiegel Nachhaltiges Gebäude ✓
- DGNB NEW CONSTRUCTION 2023 ✓
- DGNB NEW CONSTRUCTION 2018 ✓
- BNB-BN NEUBAU V2015 ✓
- EU taxonomy ✓
- BREEAM DE NEUBAU 2018 ✓
- LEED v4.1 (outside US) ✓

CERTIFIED SUSTAINABLE PRODUCT – SHI PRODUCT PASSPORT – SENTINEL HOLDING INSTITUT – www.sentinel-holding.eu

Köttner

Helmut Köttner
Scientific Director
Freiburg, 05 June 2026

Product:
Hager tehalit Leitungsführungs- und Raumanschlusssysteme aus PVC für Wohn-, Büro- und Zweckbauten

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Contents

The SHI Database is the first and only database for construction products whose comprehensive processes and data accuracy are regularly verified by the independent auditing company SGS-TÜV Saar

SENTINEL HOLDING
INSTITUT

Product:
Hager tehalit Leitungsführungs- und Raumanschlusssysteme aus PVC für Wohn-, Büro- und Zweckbauten

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QNG - Qualitätssiegel Nachhaltiges Gebäude

The Qualitätssiegel Nachhaltiges Gebäude (Quality Seal for Sustainable Buildings), developed by the German Federal Ministry for Housing, Urban Development and Building (BMWSB), defines requirements for the ecological, socio-cultural, and economic quality of buildings. The Sentinel Holding Institut evaluates construction products in accordance with QNG requirements for certification and awards the QNG ready label. Compliance with the QNG standard is a prerequisite for eligibility for the KfW funding programme. For certain product groups, the QNG currently has no specific requirements defined. Although classified as not assessment-relevant, these products remain suitable for QNG-certified projects.

Criteria	Pos. / product group	Considered substances	QNG assessment
3.1.3 Schadstoffvermeidung in Baumaterialien	13.1 Electrical, data processing, and control system installations	SVHC: phthalates / polybrominated biphenyls (PBB) / polybrominated diphenyl ethers (PBDE) / lead / cadmium	QNG ready
Verification: Herstellererklärung siehe Download-Bereich			

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SHI Product Passport no.:
15313-10-1000

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DGNB New Construction 2023

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings. The 2023 version sets high standards for ecological, economic, socio-cultural, and functional aspects throughout the entire life cycle of a building.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 03.05.2024 (3rd edition)	44 Products made of plastics (PVC)	SVHC	Quality level 4
Verification: Herstellererklärung siehe Download-Bereich			

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact, 29.05.2025 (4th edition)	44 Products made of plastics (PVC)	SVHC	Quality level 4
Verification: Herstellererklärung siehe Download-Bereich			

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SHI Product Passport no.:
15313-10-1000

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DGNB New Construction 2018

The DGNB System (German Sustainable Building Council) assesses the sustainability of various types of buildings. It can be applied to both large-scale private and commercial projects as well as smaller residential buildings.

Criteria	No. / Relevant building components / construction materials / surfaces	Considered substances / aspects	Quality level
ENV 1.2 Local environmental impact	44 Products made of Plastics (Factory)	SVHC	Quality level 4
Verification: Herstellererklärung siehe Download-Bereich			

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SHI Product Passport no.:
15313-10-1000

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BNB-BN Neubau V2015

The Bewertungssystem Nachhaltiges Bauen (Assessment System for Sustainable Building) is a tool for evaluating public office and administrative buildings, educational facilities, laboratory buildings, and outdoor areas in Germany. The BNB was developed by the former Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) and is now overseen by the Federal Ministry for Housing, Urban Development and Building (BMWSB).

Criteria	Pos. / product type	Considered substance group	Quality level
1.1.6 Risiken für die lokale Umwelt	29 PVC construction products	Heavy metals (lead, cadmium, tin), individual hazardous substances	Quality level 5
Verification: Herstellererklärung siehe Download-Bereich			

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SHI Product Passport no.:
15313-10-1000

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EU taxonomy

The EU Taxonomy classifies economic activities and products according to their environmental impact. At the product level, the EU regulation defines clear requirements for harmful substances, formaldehyde and volatile organic compounds (VOCs). The Sentinel Holding Institut GmbH labels qualified products that meet this standard.

Criteria	Product type	Considered substances	Assessment
DNSH - Pollution prevention and control		Substances according to Annex C	EU taxonomy compliant
Verification: Herstellererklärung siehe Download-Bereich			

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SHI Product Passport no.:
15313-10-1000

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BREEAM DE Neubau 2018

BREEAM (Building Research Establishment Environmental Assessment Methodology) is a UK-based building assessment system that evaluates the sustainability of new constructions, refurbishments, and conversions. Developed by the Building Research Establishment (BRE), the system aims to assess and improve the environmental, economic, and social performance of buildings.

Criteria	Product category	Considered substances	Quality level
Hea 02 Indoor Air Quality			Not relevant for assessment

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15313-10-1000

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LEED v4.1

LEED (Leadership in Energy and Environmental Design) is an internationally recognised building certification system developed by the U.S. Green Building Council. It is one of the most widely used sustainability standards for buildings worldwide and is particularly applied in internationally oriented projects. LEED assesses buildings holistically across categories such as energy efficiency, resource conservation, material selection, indoor environmental quality and site sustainability. Depending on the number of points achieved, projects are awarded one of the certification levels: LEED Certified, Silver, Gold or Platinum.

Criteria	Product category	Considered substances	Assessment
EQ Credit: Low-Emitting Materials			Not relevant for assessment

Product:
Hager tehalit Leitungsführungs- und Raumanschlusssysteme aus PVC für Wohn-, Büro- und Zweckbauten

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15313-10-1000

Product labels

In the construction industry, high-quality materials are crucial for a building's indoor air quality and sustainability. Product labels and certificates offer guidance to meet these requirements. However, the evaluation criteria of these labels vary, and it is important to carefully assess them to ensure products align with the specific needs of a construction project.

Products bearing the Sentinel Holding Institute QNG-ready seal are suitable for projects aiming to achieve the "Qualitätssiegel Nachhaltiges Gebäude" (Quality Seal for Sustainable Buildings). QNG-ready products meet the requirements of QNG Appendix Document 3.1.3, “Avoidance of Harmful Substances in Building Materials.” The KfW loan program Climate-Friendly New Construction with QNG may allow for additional funding.

Product:
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15313-10-1000

Legal notices

(*) These criteria apply to the construction project as a whole. While individual products can positively contribute to the overall building score through proper planning, the evaluation is always conducted at the building level. The information was provided entirely by the manufacturer.

Find our criteria here: https://www.sentinel-holding.eu/de/Themenwelten/Pr%C3%BCfkriterien%20f%C3%BCr%20Produkte

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Product Environmental Profile

DNG, LKG and BA6 series wiring duct

Company information

Hager
132 Boulevard d'Europe
F 67215 Obernai Cedex
www.hagergroup.net

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

References covered

DNG, LKG and BA6 series, all dimensions and colors covered including profiles (base + cover) and needed accessories:
Series BA6: 18x15, 33x20, 43x20, 63x20, 33x25, 43x31, 64x31*, 84x31, 21x32, 33x47, 43x47, 64x47, 84x47, 43x67, 64x67, 84x67, 44x88, 64x88, 84x88, 65x108, 85x108, 44x129, 65x129, 85x129, 65x159, 65x209
Series DNG: 20x20, 37x20, 50x20, 25x25, 50x25, 75x25, 25x37, 37x37, 50x37, 75x37, 50x50, 75x50, 100x50, 50x75, 75x75, 100x75, 50x100, 75x100, 100x100, 50x125, 75x125
Series LKG: 37x25, 37x37, 50x37, 37x50, 50x50, 75x50, 37x75, 50x75, 75x75, 37x100, 50x100, 75x100, 50x125, 75x125, 50x140

Methodology

PEP has been performed according to the PCR version PEP–PCR–ed3-2015 04 02 and PSR version PSR-0003-ed1.1-2015 10 16 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

BA6 series wiring duct 64x31- BA66002507030B (base + cover)

PSR product Category :

Slotted cable trunking systems for cabinets

Functional unit

Accomodate and protect the wiring along 1 meter for a reference life time of 20 years. The Slotted cable trunking system for cabinets with cross section 1984 mm² includes the profile and accessories that are representative of standard use

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			Metals			Others		
	g	%		g	%		g	%
PVC	338.35	73.4%	Calcium	6.53	1.4%	Calcium Carbonate	78.57	17.1%
			Others	3.01	0.7%	Cardboard + Paper	23.70	5.1%
						Titanium dioxide	8.73	1.9%
						Others	1.89	0.4%
Total mass of reference product :			**460.7 g**					

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 no energy consumption.

Energy model of the use phase :

None

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: 3%. 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 5.9.3 with the database version CODDE-2022-01 .

PEP representative of the covered products marketed in: Europe

Energy models considered for each phase

Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL
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_2 eq.	1.43E+00	8.02E-02	1.47E-03	0.00E+00	5.24E-02	1.56E+00
Ozone Depletion	kg CFC-11 eq.	4.35E-07	1.63E-10	1.00E-11	0.00E+00	1.34E-09	4.37E-07
Acidification of soil and water	kg SO2 eq	2.42E-03	3.61E-04	7.22E-06	0.00E+00	2.00E-04	2.99E-03
Eutrophication	kg PO_4^{3-} eq.	5.86E-04	8.29E-05	7.78E-06	0.00E+00	2.27E-04	9.04E-04
Photochemical Ozone Creation	kg C_2H_4 eq.	3.25E-04	2.56E-05	5.09E-07	0.00E+00	1.56E-05	3.67E-04
Depletion of abiotic resources - elements	kg Sb eq	1.90E-06	3.21E-09	6.39E-11	0.00E+00	3.38E-09	1.90E-06
Depletion of abiotic resources – fossil fuels	MJ	2.69E+01	1.13E+00	1.96E-02	0.00E+00	5.10E-01	2.85E+01
Water Pollution	m^3	2.98E+02	1.32E+01	2.28E-01	0.00E+00	5.92E+00	3.18E+02
Air Pollution	m^3	3.09E+02	3.29E+00	1.86E-01	0.00E+00	6.22E+00	3.19E+02

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	MJ	2.36E+00	1.51E-03	2.31E-04	0.00E+00	1.44E-02	2.38E+00
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	2.36E+00	1.51E-03	2.31E-04	0.00E+00	1.44E-02	2.38E+00
Use of non-renewable primary energy, excluding non renewable primary energy resources used as raw materials	MJ	2.36E+01	1.13E+00	2.00E-02	0.00E+00	5.57E-01	2.53E+01
Use of non-renewable primary energy resources as raw materials	MJ	7.65E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.65E+00
Total use of non renewable primary energy resources	MJ	3.13E+01	1.13E+00	2.00E-02	0.00E+00	5.57E-01	3.30E+01
Total use of primary energy	MJ	3.36E+01	1.13E+00	2.02E-02	0.00E+00	5.72E-01	3.54E+01
Use of secondary materials	kg	1.98E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-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	m^3	1.37E-01	7.18E-06	4.60E-07	0.00E+00	4.62E-05	1.37E-01

Waste category indicators

Indicators	Unit	Manufacturing RMM	Distribution D	Installation I	Use U	End Of Life EoL	GLOBAL
Hazardous waste disposed	kg	2.73E-01	2.85E-03	2.44E-02	0.00E+00	4.88E-01	7.89E-01
Non-hazardous waste disposed	kg	5.10E-02	0.00E+00	5.38E-06	0.00E+00	2.32E-04	5.13E-02
Radioactive waste disposed	kg	1.00E-04	2.03E-06	1.25E-07	0.00E+00	1.67E-05	1.19E-04

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	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
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

The environmental impact of a system covered by the PEP Ecopassport® other than the reference system for which it was drawn up can be calculated by multiplying the values of the environmental indicators by the corresponding factor.

Series	BA6	DNG	BA6	DNG	BA6	DNG	LKG	BA6	DNG	BA6	DNG	LKG	BA6	DNG
Dimension	18x15	20x20	33x20	25x25 37x20	43x20	50x20 50x25	37x25	21x32	25x37 37x37	33x25 43x31	50x37	37x37	63x20	75x25
Factor	0.3		0.4		0.5			0.6		0.7			0.8	

Series	BA6	LKG	**BA6***	DNG	LKG	DNG	LKG	BA6	DNG	LKG	LKG	BA6	DNG
Dimension	33x47	50x37	43x47 **64x31***	50x50 75x37	37x50	75x50	50x50	43x67 64x47 84x31	50x75	37x75	50x75 75x50	64x67 84x47	100x50 75x75
Factor	0.9		**1***			1.2		1.3	1.4		1.6	1.7	

*Reference product

Series	BA6	DNG	LKG	BA6	LKG	DNG	LKG	DNG	BA6	DNG	DNG	BA6
Dimension	44x88	50x100	37x100 75x75	84x67	50x100	100x75	50x125	75x100	64x88	50x125	100x100	44x129 84x88
Factor	1.8			1.9		2		2.2	2.3		2.4	2.5

Series	BA6	LKG	DNG	LKG	BA6	BA6	LKG	BA6	BA6	BA6
Dimension	65x108	75x100	75x125	50x140	65x129	85x108	75x125	85x129	65x159	65x209
Factor	2.6		2.7	2.8	3	3.1		3.3	3.7	4.6

Verification

Registration N°: HAGE-00683-V01.01-EN	Drafting Rules PEP–PCR–ed3-2015 04 02
	Supplemented by PSR-0003-ed1.1-2015 10 16
Verifier accreditation N°: VH35	Information and reference documents: www.pep-ecopassport.org
Date of issue: 4-2022	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	
Document in compliance with ISO 14025 : 2010 « Environmental labels and declarations. Type III environmental declarations »	

Nota :

The picture has no contractual value.
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 characteristics ... , real values for a product in a concrete application may therefore change.
The usage time mentioned in this document is an average duration chosen for the need of the calculations. This value cannot be assimilated to the minimum, average or real life time.
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.

Product Environmental Profile

Mini-trunking / Skirting trunking / Corner trunking - series ATA - SL - EK

Company information

Hager

132 Boulevard d'Europe
F 67215 Obernai Cedex
www.hagergroup.com

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

References covered

All dimensions and colors (RAL Codes 9016, 9010, 9011, 8014, 7035 + color codes D1, D2, D3, D4, D5, D6 when systems exist in that colors) of ATA mini-trunking systems (with and without adhesive tape, and with/without internal partition wall), SL skirting systems (standard, with soft lip, for LED and for carpet boarder) and EK skirting system. Below the list of the skirting systems covered by this PEP : SL 20x55 (standard, with soft lip and for carpet border), SL 20x80 (standard, with soft lip, for carpet border and with LED), SL 20x115 (standard), SL 17x52 (door bypass), SL 15x100 (standard), SL 20x51 (standard), SL 20X57 (with soft lip), SL 20x71 (standard), SL 20x77 (with soft lip), ATA 12x20 (w/wo adhesive tape and 1 or 2 chambers), ATA 12x30 (w/wo adhesive tape and 1 or 2 chambers), ATA 12x50 (1, 2 or 3 chambers), ATA 16x30 (w/wo adhesive tape and 1, 2 or 3 chambers), ATA 20x50 (1, 2 or 3 chambers), ATA 20x75 (1, 2 or 3 chambers), ATA 6x30, EK 40x40

Methodology

PEP has been performed according to the PCR version PEP-PCR-ed4-2021 09 06 and PSR version PSR-0003-ed2.1-2023 12 08 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

Mini-trunking system ATA 12x20 with 1 chamber (Trunking length ATA122009016 + all necessary accessories according to PSR)

Use scenario based on :
PSR product Category : PSR-0003-ed2.1-2023 12 08
Cable management systems - Mini-trunking and skirting

Functional unit

Accommodate and protect the wiring and wiring accessories along 1 metre for a Reference Service Life of the product of 20 years. The mini-trunking and skirting system with cross-section 240 mm² includes the profile and accessories that are representative of standard use.

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			Metals			Others		
	g	%		g	%		g	%
PVC	105.06	68.4%	Silicon	0.09	<0.1%	Cardboard	15.85	10.3%
ABS	7.40	4.8%				Calcium Carbonate	10.30	6.7%
PE-LD	5.27	3.4%				Wood	3.65	2.4%
PC	1.92	1.3%				Titanium dioxide	2.06	1.3%
PE-HD	0.19	0.1%				Paper	1.22	0.8%
						Other	0.46	0.3%
Total mass of reference product with raw material packaging :			**153.48 g**					

Total mass of reference product (Product + packaging)	**146.17513 g**

System Boundaries

The environmental information included in the PEP covers all the stages of the life cycle, from "cradle to grave".

Manufacturing			Distribution	Installation	Use							End of life				Module D
Raw material extraction and processing	Transport to the manufacturer	Manufacturing	Distribution to the place of operation	Installation on the place of operation	Use or application of the product installed	Maintenance	Repair	Replacement	Restoration	Energy requirements during the use stage	Water requirements during the use stage	Deinstallation	Transport to the waste treatment site	Treatment of waste in view of its reuse, recovery and/or recycling	Disposal	Benefits and loads beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Life cycle stages																

Manufacturing

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

This phase takes into account raw materials, manufacturing processes, production offcuts and their end-of-life treatment, upstream transport of materials and sub-assemblies to the manufacturing site, and transport from the manufacturing site to the final logistics platform.

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.

This phase taken into account the transport of the finished product, including packaging, to its place of use.

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.

This phase only take into account the impact of the packaging waste treatment, and the impact of the product waste treatment generated during the installation phase as specified in the applicable rules for this product category (3% profile losses during installation)

Installation elements (non delivered with the product)

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

Use

Power loss / load dependent			
Active mode		Inactive mode	
Watt	% of time	Watt	% of time
0	0%	0	100%

Power consumption / not load dependent					
Active Sleep phase		Passive Sleep phase		Turn off phase	
Watt	% of time	Watt	% of time	Watt	% of time
0	0%	0	0%	0	100%

For the considered scenario, the product has no energy consumption.

Energy model of the use phase :
None

Consumables and maintenance :
None

End of life

Considering the complexity of the recycling channels for electric and electronic equipment impacts, we rely mainely on ESR modules (datasets for WEEE product end of life).

The recycling potential of the product is: 10%. 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 6.2.4-11 with the database version CODDE® 2024-04 .

Indicators set : Indicators for PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0

PEP representative of the covered products marketed in: Europe

Energy models considered for each phase

Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4
Europe	None	Europe	None	Europe

Environmental impact indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Acidification (PEF-AP)	mole H+ eq	1.00E-03	1.57E-04	3.85E-05	0.00E+00	8.16E-05	1.28E-03	2.62E-05
Climate change - Total (PEF-GWP)	kg CO2 eq.	2.91E-01	2.48E-02	2.31E-02	0.00E+00	1.22E-01	4.61E-01	5.43E-03
Climate change-Biogenic (PEF-GWPb)	kg CO2 eq.	-7.57E-03	0.00E+00	5.29E-03	0.00E+00	6.53E-02	6.31E-02	1.26E-04
Climate change-Fossil (PEF-GWPf)	kg CO2 eq.	2.99E-01	2.48E-02	1.78E-02	0.00E+00	5.66E-02	3.98E-01	5.30E-03
Climate change-Land use and land use change (PEF-GWPlu)	kg CO2 eq.	7.79E-07	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.79E-07	0.00E+00
Ecotoxicity, freshwater (PEF-CTUe)	CTUe	3.82E+00	1.63E-02	1.89E-01	0.00E+00	4.22E-02	4.06E+00	1.43E-02
EF-particulate Matter (PEF-PM)	Incidence of diseases	7.29E-09	1.28E-09	2.21E-10	0.00E+00	3.74E-10	9.16E-09	2.78E-10
Eutrophication, freshwater (PEF-Epf)	kg P eq.	7.40E-06	9.33E-09	1.82E-07	0.00E+00	5.86E-08	7.65E-06	3.20E-08
Eutrophication marine (PEF-Epm)	kg N eq.	2.15E-04	7.38E-05	1.81E-05	0.00E+00	3.43E-05	3.41E-04	5.58E-06
Eutrophication, terrestrial (PEF-Ept)	mole of N eq.	2.28E-03	8.10E-04	1.20E-04	0.00E+00	4.02E-04	3.61E-03	6.35E-05
Human toxicity, cancer (PEF-CTUh-c)	CTUh	3.07E-09	4.37E-13	1.36E-09	0.00E+00	8.19E-11	4.51E-09	2.76E-12
Human toxicity, non-cancer (PEF-CTUh-nc)	CTUh	3.99E-09	8.45E-12	5.61E-11	0.00E+00	3.76E-10	4.43E-09	3.45E-11
Ionising radiation, human health (PEF-IR)	kg Bq U235 eq.	4.20E+00	6.06E-05	2.20E-03	0.00E+00	1.28E-03	4.20E+00	4.57E-04
Land use (PEF-LU)	No dimension	1.38E-01	0.00E+00	3.23E-05	0.00E+00	1.40E-02	1.52E-01	-1.13E-02
Ozone depletion (PEF-ODP)	kg CFC-11 eq.	9.72E-08	3.81E-11	1.72E-10	0.00E+00	1.20E-09	9.86E-08	7.77E-10
Photochemical ozone formation - human health (PEF-POCP)	kg of NMVOC eq.	7.71E-04	2.04E-04	2.77E-05	0.00E+00	8.85E-05	1.09E-03	1.80E-05
Resource use, fossils (PEF-ADPf)	MJ	8.06E+00	3.47E-01	1.25E-01	0.00E+00	1.38E-01	8.67E+00	8.97E-02
Resource use, minerals and metals (PEF-ADPe)	kg Sb eq	1.24E-08	9.79E-10	-2.77E-08	0.00E+00	-9.02E-07	-9.16E-07	2.94E-08
Water use (PEF-WU)	m3 eq.	3.13E-01	9.44E-05	2.01E-03	0.00E+00	7.24E-01	1.04E+00	5.53E-01

Resource use indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Net use of fresh water	m^3	7.29E-03	2.20E-06	4.68E-05	0.00E+00	2.69E-02	3.42E-02	2.15E-02
Total use of primary energy	MJ	8.76E+00	3.47E-01	1.41E-01	0.00E+00	1.36E-01	9.38E+00	9.12E-02
Total use of non renewable primary energy resources	MJ	8.06E+00	3.47E-01	1.25E-01	0.00E+00	1.38E-01	8.67E+00	8.97E-02
Total use of renewable primary energy resources	MJ	6.97E-01	4.63E-04	1.63E-02	0.00E+00	-1.41E-03	7.12E-01	1.49E-03
Use of non-renewable primary energy, excluding non renewable primary energy resources used as raw materials	MJ	5.33E+00	3.47E-01	1.25E-01	0.00E+00	1.38E-01	5.94E+00	8.97E-02
Use of non-renewable primary energy resources as raw materials	MJ	2.73E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E+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	0.00E+00
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	kg	3.42E-01	4.63E-04	1.63E-02	0.00E+00	-1.41E-03	3.57E-01	1.49E-03
Use of renewable primary energy resources as raw materials	MJ	3.55E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.55E-01	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary materials	kg	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00

Waste category indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Hazardous waste disposed	kg	1.33E-02	0.00E+00	5.96E-05	0.00E+00	-8.04E-03	5.29E-03	2.39E-21
Non-hazardous waste disposed	kg	3.87E-02	8.73E-04	1.25E-02	0.00E+00	1.09E-01	1.61E-01	9.14E-21
Radioactive waste disposed	kg	1.49E-05	6.22E-07	7.76E-07	0.00E+00	2.72E-06	1.90E-05	0.00E+00

Output flow indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Exported energy	MJ	5.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-05	0.00E+00
Materials for energy recovery	kg	2.58E-03	0.00E+00	4.45E-03	0.00E+00	1.42E-03	8.44E-03	0.00E+00
Materials for recycling	kg	3.26E-04	0.00E+00	6.61E-04	0.00E+00	6.52E-04	1.64E-03	0.00E+00

Biogenic carbon content

Packaging	Unit	Cardboard	Paper	Wood	Sum
Biogenic carbon content (ratio)	%	2.80E+01	3.78E+01	3.95E+01	
Mass	kg	1.59E-02	1.22E-03	3.65E-03	2.07E-02
Biogenic carbon content (declared unit)	kg of C	4.44E-03	4.63E-04	1.44E-03	6.35E-03
Biogenic carbon content (functional unit)	kg of C	4.44E-03	4.63E-04	1.44E-03	6.35E-03
Source		ADEME	APESA/RECORD	EN 16485	

Product	Unit	Cardboard	Paper	Wood	Sum
Mass	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content (declared unit)	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content (functional unit)	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Extrapolation rules

The environmental impact of a system covered by the PEP ecopassport® other than the reference system for which it was drawn up can be calculated by multiplying the values of the environmental indicators by the corresponding factor for each stage of the life cycle and the total life cycle.

Range	*ATA**	ATA	ATA	ATA	ATA	ATA	ATA	EK
System dimension [mm x mm]	*12x20**	12x30	12x50	16x30	20x50	20x75	6x30	40x40
Extrapolation factor	1.0	1.4	1.7	1.6	2.5	3.6	1.3	3.5

Range	SL	SL (soft lip)	SL (carpet border)	SL	SL (soft lip)	SL (carpet border)	SL (with LED)	SL
System dimension [mm x mm]	20x55	20x55	20x55	20x80	20x80	20x80	20x80	20x115
Extrapolation factor	4.2	4.4	4.8	5.7	5.9	5.3	5.3	7.3

Range	SL (soft lip)	SL	SL (soft lip)	SL	SL (door bypass)	SL
System dimension [mm x mm]	20X57	20x71	20x77	20x51	17x52	15x100
Extrapolation factor	6.0	5.2	6.5	4.0	7.7	6.0

**Reference system*

Verification

Registration N°: HAGE-01240-V01.01-EN	Drafting Rules	PEP-PCR-ed4-2021 09 06
	Supplemented by	PSR-0003-ed2.1-2023 12 08
Verifier accreditation N°: VH35	Information and reference documents: www.pep-ecopassport.org	
Date of issue: 11-2024	Validity period:	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006		
Internal ● External ○		
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)		
PEPs are compliant with XP C08-100-1:2016 or EN 50693:2019 The elements of the present PEP cannot be compared with elements from another program.		
Document in compliance with ISO 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations »		

Nota :

The picture has no contractual value.

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 characteristics ... , real values for a product in a concrete application may therefore change.

The usage time mentioned in this document is an average duration chosen for the need of the calculations. This value cannot be assimilated to the minimum, average or real life time.

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.

Product Environmental Profile

Distribution trunking - series LF - LFE - FB - BA6

Company information

Hager
132 Boulevard d'Europe
F 67215 Obernai Cedex
www.hagergroup.com

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

References covered

All dimensions and colors (RAL codes 7030, 7035, 8014, 9001, 9010, 9011, 9016 when systems exist in that colors) of LF-LFE-FB-BA6 (w/o holes) trunking systems. The systems include all fittings and accessories that are representative of a standard use. Below the list of the trunking systems : B 80 x 100, B 80 x 60, B 60 x 150, B 40 x 40, B 60 x 120, B 60 x 40, B 30 x 25, B 60 x 60, B 40 x 60, B 60 x 80, B 80 x 120, B 60 x 120, B 60 x 40, B 80 x 40, B 60 x 80, B 80 x 60, B 60 x 150, B 80 x 100, B 40 x 80, B 80 x 80, B 60 x 25, B 80 x 80, B 60 x 100, B 15 x 15, B 30 x 15, B 20 x 25, B 30 x 40, B 60 x 60, B 40 x 60, B 40 x 40, B 30 x 15, B 60 x 25, B 40 x 25, B 20 x 25, B 40 x 25, B 80 x 40, B 60 x 200, B 15 x 15, B 60 x 15, B 40 x 80, B 60 x 100, B 60 x 15, FB 60 x 230, FB 100 x 230, FB 60 x 190, FB 60 x 150, FB 80 x 130, FB 60 x 130, FB 60 x 110, FB 100 x 230, FB 60 x 130, FB 80 x 130, FB 60 x 110, FB 60 x 230, FB 60 x 190, FB 60 x 150, LF 40 x 110, LF 60 x 110, LF 40 x 60, LF 30 x 30, LF 20x20, LF 60 x 90, LF 60 x 150, LF 60 x 190, LF 20x35, LF 40 x 90, LF 15x15, LF 30 x 60, LF 30 x 45, LF 40 x 110, LF 40 x 40, LF 25x25, LF 60 x 110, LF 40 x 90, LF 30 x 30, LF 20x35, LF 20x20, LF 18x45, LF 20x35, LF 18x45, LF 15x15, LF 18x45, LF 60 x 150, LF 10x10, LF 10x10, LF 60 x 230, LF 60 x 190, LF 40 x 60, LF 60 x 230, LF 60 x 60, LFE 60x110, LFE 20x35, LFE 40x60

Methodology

PEP has been performed according to the PCR version PEP-PCR-ed4-2021 09 06 and PSR version PSR-0003-ed2.1-2023 12 08 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

Distribution trunking system LF 20x35 in RAL9016 (Trunking length LF2003509016 + all necessary accessories according to PSR)

Use scenario based on :
PSR product Category : PSR-0003-ed2.1-2023 12 08
Cable management systems - Distribution trunking systems

Functional unit

Accommodate and protect the wiring along 1 metre for a Reference Service Life of the product of 20 years.
The distribution trunking system with cross-section 440 mm² includes the profile and accessories that are representative of standard use.

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			Metals			Others		
	g	%		g	%		g	%
PVC	178.24	71.0%	Others	0.01	<0.1%	Calcium Carbonate	35.02	14.0%
PE-LD	4.87	1.9%				Cardboard	20.72	8.3%
ABS	1.77	0.7%				Wood	5.97	2.4%
						Titanium dioxide	4.12	1.6%
						Paper	0.15	<0.1%
						Others	0.02	<0.1%
Total mass of reference product with raw material packaging :			**250.87 g**					

Total mass of reference product (Product + packaging)	**238.71865 g**

System Boundaries

The environmental information included in the PEP covers all the stages of the life cycle, from "cradle to grave".

Manufacturing			Distribution	Installation	Use							End of life				Module D
Raw material extraction and processing	Transport to the manufacturer	Manufacturing	Distribution to the place of operation	Installation on the place of operation	Use or application of the product installed	Maintenance	Repair	Replacement	Restoration	Energy requirements during the use stage	Water requirements during the use stage	Deinstallation	Transport to the waste treatment site	Treatment of waste in view of its reuse, recovery and/or recycling	Disposal	Benefits and loads beyond the system boundaries
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Life cycle stages																

Manufacturing

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

This phase takes into account raw materials, manufacturing processes, production offcuts and their end-of-life treatment, upstream transport of materials and sub-assemblies to the manufacturing site, and transport from the manufacturing site to the final logistics platform.

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.

This phase taken into account the transport of the finished product, including packaging, to its place of use.

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.

This phase only take into account the impact of the packaging waste treatment, and the impact of the product waste treatment generated during the installation phase as specified in the applicable rules for this product category (3% profile losses during installation)

Installation elements (non delivered with the product)

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

Use

Power loss / load dependent			
Active mode		Inactive mode	
Watt	% of time	Watt	% of time
0	0%	0	100%

Power consumption / not load dependent					
Active Sleep phase		Passive Sleep phase		Turn off phase	
Watt	% of time	Watt	% of time	Watt	% of time
0	0%	0	0%	0	100%

For the considered scenario, the product has no energy consumption.

Energy model of the use phase :
None

Consumables and maintenance :
None

End of life

Considering the complexity of the recycling channels for electric and electronic equipment impacts, we rely mainly on ESR modules (datasets for WEEE product end of life).

The recycling potential of the product is: 5%. 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 6.2.4-10 with the database version CODDE® 2024-04 .

Indicators set : Indicators for PEF EF 3.1 (Compliance: PEP ed.4, EN15804+A2) v2.0

PEP representative of the covered products marketed in: Europe

Energy models considered for each phase

Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4
Germany	Europe	Europe	None	Europe

Environmental impact indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Acidification (PEF-AP)	mole H+ eq	6.53E-03	2.59E-04	4.55E-05	0.00E+00	7.30E-05	6.90E-03	-8.60E-06
Climate change - Total (PEF-GWP)	kg CO2 eq.	1.14E+00	4.08E-02	3.09E-02	0.00E+00	1.93E-01	1.40E+00	-3.52E-03
Climate change-Biogenic (PEF-GWPb)	kg CO2 eq.	-2.21E-03	0.00E+00	7.48E-03	0.00E+00	1.20E-01	1.25E-01	-6.79E-05
Climate change-Fossil (PEF-GWPf)	kg CO2 eq.	1.14E+00	4.08E-02	2.35E-02	0.00E+00	7.27E-02	1.28E+00	-3.45E-03
Climate change-Land use and land use change (PEF-GWPlu)	kg CO2 eq.	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Ecotoxicity, freshwater (PEF-CTUe)	CTUe	7.78E+00	2.68E-02	2.17E-01	0.00E+00	2.56E-02	8.05E+00	-3.74E-02
EF-particulate Matter (PEF-PM)	Incidence of diseases	4.35E-08	2.11E-09	2.57E-10	0.00E+00	-2.95E-11	4.58E-08	-7.61E-11
Eutrophication, freshwater (PEF-Epf)	kg P eq.	1.31E-05	1.53E-08	2.12E-07	0.00E+00	1.02E-08	1.34E-05	-1.29E-08
Eutrophication marine (PEF-Epm)	kg N eq.	8.60E-04	1.21E-04	2.13E-05	0.00E+00	4.29E-05	1.05E-03	-2.20E-06
Eutrophication, terrestrial (PEF-Ept)	mole of N eq.	1.25E-02	1.33E-03	1.45E-04	0.00E+00	5.11E-04	1.45E-02	-2.32E-05
Human toxicity, cancer (PEF-CTUh-c)	CTUh	4.22E-09	7.18E-13	1.53E-09	0.00E+00	1.87E-11	5.77E-09	-8.36E-13
Human toxicity, non-cancer (PEF-CTUh-nc)	CTUh	9.56E-09	1.39E-11	7.22E-11	0.00E+00	6.06E-10	1.03E-08	-1.90E-11
Ionising radiation, human health (PEF-IR)	kg Bq U235 eq.	4.40E+00	9.96E-05	2.65E-03	0.00E+00	5.96E-04	4.40E+00	-6.46E-04
Land use (PEF-LU)	No dimension	2.49E-01	0.00E+00	3.64E-05	0.00E+00	2.81E-03	2.52E-01	-4.75E-02
Ozone depletion (PEF-ODP)	kg CFC-11 eq.	1.69E-07	6.27E-11	2.01E-10	0.00E+00	5.17E-10	1.69E-07	-1.26E-11
Photochemical ozone formation - human health (PEF-POCP)	kg of NMVOC eq.	2.89E-03	3.36E-04	3.33E-05	0.00E+00	1.05E-04	3.36E-03	-6.94E-06
Resource use, fossils (PEF-ADPf)	MJ	2.63E+01	5.70E-01	1.44E-01	0.00E+00	4.28E-02	2.70E+01	-7.30E-02
Resource use, minerals and metals (PEF-ADPe)	kg Sb eq	2.64E-07	1.61E-09	-5.15E-08	0.00E+00	-1.72E-06	-1.51E-06	-3.85E-10
Water use (PEF-WU)	m3 eq.	5.81E-01	1.55E-04	2.91E-03	0.00E+00	1.85E-01	7.69E-01	-7.37E-02

Resource use indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Net use of fresh water	m³	1.35E-02	3.61E-06	6.78E-05	0.00E+00	6.68E-03	2.03E-02	-5.52E-04
Total use of primary energy	MJ	3.22E+01	5.71E-01	1.63E-01	0.00E+00	2.66E-02	3.30E+01	-8.14E-02
Total use of non renewable primary energy resources	MJ	2.63E+01	5.70E-01	1.44E-01	0.00E+00	4.28E-02	2.70E+01	-7.30E-02
Total use of renewable primary energy resources	MJ	5.92E+00	7.61E-04	1.87E-02	0.00E+00	-1.62E-02	5.93E+00	-8.36E-03
Use of non-renewable primary energy, excluding non renewable primary energy resources used as raw materials	MJ	2.24E+01	5.70E-01	1.44E-01	0.00E+00	4.28E-02	2.32E+01	-7.30E-02
Use of non-renewable primary energy resources as raw materials	MJ	3.87E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.87E+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	0.00E+00
Use of renewable primary energy, excluding renewable primary energy resources used as raw materials	kg	5.44E+00	7.61E-04	1.87E-02	0.00E+00	-1.62E-02	5.44E+00	-8.36E-03
Use of renewable primary energy resources as raw materials	MJ	4.86E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-01	0.00E+00
Use of renewable secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of secondary materials	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Waste category indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Hazardous waste disposed	kg	8.30E-02	0.00E+00	-1.06E-04	0.00E+00	-1.49E-02	6.80E-02	-3.11E-06
Non-hazardous waste disposed	kg	1.59E-01	1.44E-03	1.81E-02	0.00E+00	1.97E-01	3.75E-01	-1.11E-03
Radioactive waste disposed	kg	2.77E-05	1.02E-06	9.81E-07	0.00E+00	4.77E-06	3.44E-05	-7.32E-07

Output flow indicators

Indicators	Unit	Manufacturing A1-A3	Distribution A4	Installation A5	Use B1-B7	End Of Life C1-C4	GLOBAL	Module D
Components for re-use	kg	0.00E+00	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	0.00E+00
Materials for energy recovery	kg	4.07E-03	0.00E+00	6.25E-03	0.00E+00	4.06E-05	1.04E-02	0.00E+00
Materials for recycling	kg	3.35E-04	0.00E+00	1.03E-03	0.00E+00	0.00E+00	1.36E-03	0.00E+00

Biogenic carbon content

Packaging	Unit	Cardboard	Paper	Wood	Sum
Biogenic carbon content (ratio)	%	2.80E+01	3.78E+01	3.95E+01	
Mass	kg	2.07E-02	1.45E-04	5.97E-03	2.68E-02
Biogenic carbon content (declared unit)	kg of C	5.80E-03	5.49E-05	2.36E-03	8.22E-03
Biogenic carbon content (functional unit)	kg of C	5.80E-03	5.49E-05	2.36E-03	8.22E-03
Source		ADEME	APESA/RECORD	EN 16485	

Product	Unit	Cardboard	Paper	Wood	Sum
Mass	kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content (declared unit)	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Biogenic carbon content (functional unit)	kg of C	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Extrapolation rules

The environmental impact of a system covered by the PEP ecopassport® other than the reference system for which it was drawn up can be calculated by multiplying the values of the environmental indicators by the corresponding factor for each stage of the life cycle and the total life cycle.

System	LF 40 x 110	LF 60 x 110	LF 40 x 60	LF 30 x 30	LF 20x20	LF 60 x 90	LF 60 x 150	LF 60 x 190	*LF 20x35**	LF 40 x 90	LF 15x15	LF 30 x 60	LF 30 x 45	LF 40 x 110	LF 40 x 40	LF 25x25	LF 60 x 110	LF 40 x 90
Extrapolation factor	6.2	6.4	2.8	1.5	0.7	5.0	3.1	10.6	*1.0*	3.7	0.6	2.3	1.9	5.2	2.1	1.0	6.2	4.0

System	LF 30 x 30	LF 20x35	LF 20x20	LF 18x45	LF 20x35	LF 18x45	LF 15x15	LF 18x45	LF 60 x 150	LF 10x10	LF 10x10	LF 60 x 230	LF 60 x 190	LF 40 x 60	LF 60 x 230	LF 60 x 60	LFE 60x110	LFE 20x35	LFE 40x60
Extrapolation factor	1.5	1.1	0.6	1.4	1.0	1.4	0.6	1.4	3.5	0.4	0.4	14.0	11.6	3.1	11.9	3.8	6.3	1.0	2.8

System	FB 60 x 230	FB 100 x 230	FB 60 x 190	FB 60 x 150	FB 80 x 130	FB 60 x 130	FB 60 x 110	FB 100 x 230	FB 60 x 130	FB 80 x 130	FB 60 x 110	FB 60 x 230	FB 60 x 190	FB 60 x 150
Extrapolation factor	11.2	14.6	9.8	6.5	8.2	5.5	4.9	17.2	8.1	10.0	7.2	14.1	12.2	8.6

System	B 80 x 100	B 80 x 60	B 60 x 150	B 40 x 40	B 60 x 120	B 60 x 40	B 30 x 25	B 60 x 60	B 40 x 60	B 60 x 80	B 80 x 120	B 60 x 120	B 60 x 40	B 80 x 40	B 60 x 80	B 80 x 60	B 60 x 150	B 80 x 100	B 40 x 80	B 40 x 80	B 60 x 100
Extrapolation factor	7.3	5.3	8.8	2.5	6.5	3.4	1.8	4.1	3.2	5.4	7.8	6.4	3.4	4.6	5.4	5.3	8.8	7.3	6.0	4.4	5.8

System	B 80 x 80	B 60 x 25	B 80 x 80	B 60 x 100	B 15 x 15	B 30 x 15	B 20 x 25	B 30 x 40	B 60 x 60	B 40 x 60	B 40 x 40	B 30 x 15	B 60 x 25	B 40 x 25	B 20 x 25	B 40 x 25	B 80 x 40	B 60 x 200	B 15 x 15	B 60 x 15	B 60 x 15
Extrapolation factor	6.4	2.7	6.4	7.7	1.1	1.0	1.8	2.3	4.2	4.1	3.3	1.0	3.3	1.9	1.4	1.9	4.6	10.7	0.8	2.1	2.1

**reference system*

Verification

Registration N°: HAGE-01238-V01.01-EN	Drafting Rules	PEP-PCR-ed4-2021 09 06
	Supplemented by	PSR-0003-ed2.1-2023 12 08
Verifier accreditation N°: VH35	Information and reference documents: www.pep-ecopassport.org	
Date of issue: 11-2024	Validity period:	5 years
Independent verification of the declaration and data, in compliance with ISO 14025 : 2006		
Internal ● External ○		
The PCR review was conducted by a panel of experts chaired by Julie Orgelet (DDemain)		
PEPs are compliant with XP C08-100-1:2016 or EN 50693:2019 The elements of the present PEP cannot be compared with elements from another program.		
Document in compliance with ISO 14025 : 2006 « Environmental labels and declarations. Type III environmental declarations »		

Nota :

The picture has no contractual value.

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 characteristics ... , real values for a product in a concrete application may therefore change.

The usage time mentioned in this document is an average duration chosen for the need of the calculations. This value cannot be assimilated to the minimum, average or real life time.

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.

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Herstellererklärung zum Qualitätssiegel Nachhaltiges Gebäude (QNG)

Diese Herstellererklärung bezieht sich auf den **QNG-Anforderungskatalog, Anhangdokument 313,** Version 1.3 (Stand 14.09.2023, Korrekturfassung).

Hiermit erklären wir, die Hager SE, dass sämtliche von uns in Verkehr gebrachten Produkte QNG-konform sind und im Rahmen von Bauvorhaben mit angestrebter QNG-Zertifizierung eingesetzt werden können.

Für einzelne Produktgruppen gelten spezifische QNG-Anforderungen. Diese Anforderungen werden von den jeweils betroffenen Produkten erfüllt. Alle übrigen Produkte sind im Sinne des QNG anforderungsfrei und frei einsetzbar.

Relevante QNG-Anforderungen und Produktgruppen

Pos. 1.1 – SVHC-Deklaration gemäß REACH-Verordnung

Alle in der Kriterien Matrix aufgeführten Bauprodukte erfüllen die Anforderungen zur Produktdokumentation und Deklaration enthaltener SVHC > 0,10 % gemäß REACH-Verordnung. Die Einhaltung der Anforderungen wird gemäß REACH-Verordnung dokumentiert.

Pos. 7.4 – VOC-Anforderungen gemäß Decopaint Richtlinie

Korrosionsschutzbeschichtungen von *Schranksystemen* erfüllen die Anforderung VOC ≤ 100,0 g/l. Die Einhaltung der Anforderungen wird gemäß der Decopaint Richtlinie dokumentiert.

Pos. 13.1 – Schadstoffanforderungen gemäß RoHS Richtlinie

Kabel, Leitungen, Leerrohre sowie Kabelkanäle und Kabelrinnen aus Kunststoff enthalten keine Phthalate, PBB, PBDE, Blei oder Cadmium in Konzentrationen > 0,10 %.
Die Einhaltung der Anforderungen wird gemäß RoHS Richtlinie dokumentiert.

Pos. 13.2 Schadstoffanforderungen gemäß REACH- und POP-VO

Brandschutzrelevante Produkte für Brandschottungen im Innen- und Außenbereich enthalten:

- keine Chlorparaffine
- keine polybromierten Biphenyle (PBB)
- kein polybromierten Diphenylether (PBDE)
- keine Tris(2-chlorethyl)phosphate (TCEP)

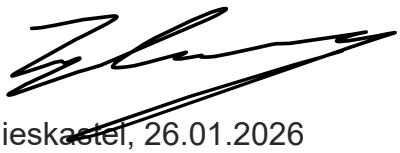
in Konzentrationen von mehr als 0,1% Massenprozent. Die Einhaltung der Anforderungen wird gemäß POP-Verordnung sowie REACH-Verordnung dokumentiert.

Anforderungsfreie Produkte

Alle Hager Produkte, die nicht unter die QNG-Positionen 1.1, 7.4, 13.1 oder 13.2 fallen, sind nach QNG anforderungsfrei und ohne zusätzlichen Nachweis im QNG-Kontext einsetzbar.

Nachweisführung und Hinweis

Die produktbezogenen REACH- und RoHS-Erklärungen sind im Hager E-Katalog unter **hager.de** verfügbar und können für die QNG-Nachweisführung verwendet werden.



Blieskastel, 26.01.2026
Martin Isberg
Senior Certification Manager
Hager SE

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Herstellererklärung zum Bewertungssystem Nachhaltiges Bauen (BNB)

Diese Herstellererklärung bezieht sich auf das **Bewertungssystem Nachhaltiges Bauen (BNB), Kriterium 1.1.6 „Risiken für die lokale Umwelt“,** Version 2015 (Stand 28.09.2017, Korrekturfassung).

Hiermit erklären wir, die Hager SE, dass sämtliche von uns in Verkehr gebrachten Produkte BNB-konform sind und im Rahmen von Bauvorhaben mit angestrebter BNB-Zertifizierung eingesetzt werden können.

Für einzelne Produktgruppen gelten spezifische BNB-Anforderungen. Diese Anforderungen werden von den jeweils betroffenen Produkten erfüllt. Alle übrigen Produkte sind im Sinne des BNB anforderungsfrei und frei einsetzbar.

Relevante BNB-Anforderungen und Produktgruppen
Pos. 3a – VOC-Anforderungen gemäß Decopaint und RoHS Richtlinie

Korrosionsschutzbeschichtungen von *Schranksystemen* erfüllen die Anforderung VOC ≤ 100,0 g/l. Außerdem enthalten die Beschichtungen keine Blei-, Cadmium oder Chrom VI Verbindungen. Die Einhaltung der Anforderungen wird gemäß der Decopaint und RoHS Richtlinie dokumentiert.

Pos. 29 – Schadstoffanforderungen gemäß REACH-Verordnung und RoHS Richtlinie

Bauprodukte aus PVC, wie z. B. Kabel, Leitungen, Kanäle und Rohre, enthalten keine Cadmium- oder Bleistabilisatoren. Die Einhaltung der Anforderungen wird gemäß REACH Verordnung sowie der RoHS Richtlinie dokumentiert.

Pos. 44 Schadstoffanforderungen gemäß REACH- und POP-Verordnung

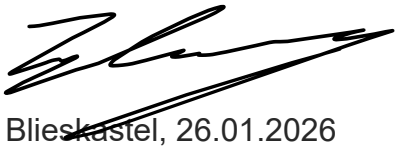
Brandschutzrelevante Produkte, wie z. B. Brandschutzbeschichtungen, -spachtelmassen oder -abdichtungen, enthalten:

- keine Chlorparaffine
- keine polybromierten Biphenyle (PBB)
- kein polybromierten Diphenylether (PBDE)
- keine Tris(2-chlorethyl)phosphate (TCEP)

in Konzentrationen von mehr als 0,1 % Massenprozent. Die Einhaltung der Anforderungen wird gemäß REACH- sowie der POP-Verordnung dokumentiert.

Anforderungsfreie Produkte
Alle Hager Produkte, die nicht unter die BNB-Positionen 3a, 29 oder 44 fallen, sind anforderungsfrei und ohne zusätzlichen Nachweis im BNB-Kontext einsetzbar.

Nachweisführung und Hinweis
Die produktbezogenen REACH- und RoHS-Erklärungen sind im Hager E-Katalog unter **hager.de** verfügbar und können für die BNB-Nachweisführung verwendet werden.



Blieskastel, 26.01.2026
Martin Isberg
Senior Certification Manager
Hager SE

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Herstellererklärung zum Deutschen Gütesiegel für Nachhaltiges Bauen (DGNB)

Diese Herstellererklärung bezieht sich auf das **DGNB-System**, Kriterium **ENV1.2 „Risiken für die lokale Umwelt“, Anlage 1 – Kriterienmatrix**, Auflage 4 (Stand 29.05.2025).

Hiermit erklären wir, die Hager SE, dass sämtliche von uns in Verkehr gebrachten Produkte DGNB-konform sind und im Rahmen von Bauvorhaben mit angestrebter DGNB-Zertifizierung eingesetzt werden können.

Für einzelne Produktgruppen gelten spezifische DGNB-Anforderungen. Diese Anforderungen werden von den jeweils betroffenen Produkten erfüllt. Alle übrigen Produkte sind im Sinne des DGNB anforderungsfrei und frei einsetzbar.

Relevante DGNB-Anforderungen und Produktgruppen
Pos. 1 – VOC-Anforderungen gemäß Decopaint Richtlinie

Korrosionsschutzbeschichtungen von *Schranksystemen* erfüllen die Anforderung VOC ≤ 100,0 g/l. Die Einhaltung der Anforderungen wird gemäß der Decopaint Richtlinie dokumentiert.

Pos. 43b – Schadstoffanforderungen gemäß POP- und REACH-Verordnung
Flammhemmend ausgerüsteten Zubehörprodukte, insbesondere Brandschutzprodukte, Brandschutzschäume, Brandschutzspachtelmassen enthalten:

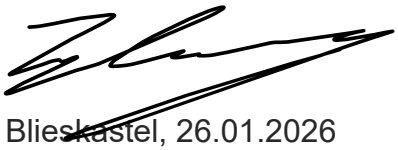
- keine Chlorparaffine (SCCPs, MCCPs, LCCPs)
- keine polybromierten Biphenyle (PBB)
- keine polybromierten Diphenylether (PBDE)
- keine besonders besorgniserregenden Stoffe (SVHC)
- kein Antimontrioxid

in Konzentrationen von mehr als 0,1% Massenprozent. Die Einhaltung der Anforderungen wird gemäß POP-Verordnung sowie der REACH-Verordnung dokumentiert.

Pos. 44 – Schadstoffanforderungen gemäß REACH-Verordnung
Kabelummantelungen enthalten keine besonders besorgniserregenden Stoffe (SVHC) in Konzentrationen von mehr als 0,1 %.
Die Einhaltung der Anforderungen wird gemäß der REACH-Verordnung dokumentiert.

Anforderungsfreie Produkte
Alle Hager Produkte, die nicht unter die DGNB-Positionen 1, 43b oder 44 fallen, sind anforderungsfrei und ohne zusätzlichen Nachweis im DGNB-Kontext einsetzbar.

Nachweisführung und Hinweis
Die produktbezogenen REACH- und RoHS-Erklärungen sind im Hager E-Katalog unter **hager.de** verfügbar und können für die DGNB-Nachweisführung verwendet werden.



Blieskastel, 26.01.2026
Martin Isberg
Senior Certification Manager
Hager SE

CE-Kennzeichnung Konformitätszertifikat

Wir,
Hager SE
Zum Gunterstal
D 66440 Blieskastel

erklären in alleiniger Verantwortung, dass alle unsere mit CE gekennzeichnet Produkte von folgenden Angebotssegmente

- Installationsverteilungen und Schalt-/Schutzgeräte
- Leitungsführung und Raumanschlusssysteme
- Schalterprogramme und Gebäudesteuerung
- Türkommunikation und Sicherheitstechnik
- Energieverteilungen und Schalt-/ Schutzgeräte

die Anforderungen folgender EU-Richtlinien und Verordnungen und ihrer entsprechenden Ergänzungen, soweit zutreffend und anwendbar, erfüllen:

- Niederspannungsrichtlinie 2014/35/EU
- Richtlinie über Elektromagnetische Verträglichkeit 2014/30/EU
- Richtlinie über Bereitstellung von Funkanlagen auf dem Markt 2014/53/EU
- Richtlinie zur Festlegung von Anforderungen an die umweltgerechte Gestaltung energieverbrauchsrelevanter Produkte 2009/125/EG
- Messgeräterichtlinie 2014/32/EU
- Bauproduktverordnung (EU) Nr. 305/2011
- Richtlinie zur Beschränkung der Verwendung bestimmter gefährlicher Stoffe 2011/65/EU

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien und Verordnungen, beinhaltet jedoch keine Zusicherung von Eigenschaften.

Für die bestimmungsgemäße Anwendung unserer Produkte, zur Errichtung einer betriebsfertigen Anlage gemäß den einschlägigen Errichtungsbestimmungen, ist der Elektrotechniker zuständig.

Die CE-Kennzeichnung ist direkt auf dem Produkt, auf der Verpackung oder auf der Umverpackung aufgebracht.
Die Hager SE handelt im Auftrag aller ihrer direkten oder indirekten Tochtergesellschaften.

Blieskastel, den 19. Mai 2017

Dr.-Ing. Dominique Beck
Corporate Standards and Business Environment Director – Hager Group

Rechtsform: Societas Europaea
Sitz: Blieskastel
Registeramt: Saarbrücken HRB16434
Vorstand: Daniel Hager (Vorstandsvorsitzender), Philippe Ferragu, Franck Houdebert

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RoHS declaration

Die europäische RoHS Richtlinie 2011/65/UE und die delegierte Richtlinie (EU) 2015/863 beschränken die Verwendung gefährlicher Stoffe in elektrischen und elektronischen Geräten.

Die betroffenen Stoffe sind:

- Quecksilber
- Blei
- Sechswertiges Chrom
- Cadmium
- Polybromiertes Biphenyl (PBB)
- Polybromiertes Diphenylether (PBDE)
- Di(2-ethylhexyl)phthalat (DEHP)
- Butylbenzylphthalat (BBP)
- Dibutylphthalat (DBP)
- Diisobutylphthalat (DIBP)

Die RoHS-Konformität wird durch die CE-Kennzeichnung abgedeckt. Für alle unsere Produkte der Kategorien 1 bis 11 (nach Anhang I der Richtlinie 2011/65/UE) ist die Konformität beider Richtlinien in unserer EU-Erklärung enthalten (in unserem Webkatalog verfügbar).

REACH Declaration

Die REACH-Verordnung ist am 1. Juni 2007 in Kraft getreten. Ziel ist es, dass alle in der EU produzierten und verwendeten Stoffe keinen negativen Einfluss auf Gesundheit und Umwelt haben.

Die Hager Group entwickelt, fertigt und vertreibt elektrotechnische Produkte.
Im Sinne von REACH stellt die Hager Group „Erzeugnisse“ her und ist „nachgeschalteter Anwender“.

Wir vergewissern uns, dass unsere Lieferanten bei den Materialien und Komponenten, die sie uns liefern, alle Auflagen erfüllen.

Die Hager Group fühlt sich von jeher für die Umweltfreundlichkeit ihrer Produkte verantwortlich.
Das Unternehmen hält alle Anforderungen von REACH ein.

Für die SVHC-Liste sowie gemäß REACH Artikel 33 geben wir unseren Kunden alle Angaben über besonders besorgniserregende Stoffe in unseren Produkten bekannt, wenn die Konzentration von mehr als 0,1 Massenprozent überschritten wird. In diesen Fällen sind diese Informationen in der SCIP-Datenbank verfügbar (https://echa.europa.eu/de/scip-database).

Wenn Sie zusätzliche Fragen haben, wenden Sie sich bitte an Ihre Vertriebspartner oder unseren E-Mail-Kontakt: Environmentaldata.europe@hagergroup.com.

Blieskastel, 07 August 2023

Klaus-Wolfgang Klingner
Director Corporate Standards and Business Environment - Hager Group