

Sustainability Contribution Declaration

LEED v4[®] (Leadership in Energy and Environmental Design)

Day/Month/Year, www.hauraton.com

HAURATON GmbH & Co. KG
Werkstraße 13
76437 Rastatt
Germany

The background of the page is a photograph of a vast green field under a bright blue sky with scattered white clouds. The text "DRAFT Version" is overlaid in the center of the image in a large, bold, red font.

DRAFT
Version

LEED v4[®] (Leadership in Energy and Environmental Design)

This document has been compiled to support the LEED certification process by providing relevant and associated information. The basis of this information is the LEED v4 (<http://www.usgbc.org/leed-v4>).

CIVILS



Linear surface drainage systems in fibre-reinforced concrete or composite materials for use on a wide variety of projects subject to loads from D400 – F900.

LANDSCAPING



Linear surface drainage systems in fibre-reinforced concrete, composite materials or steel for use on a wide variety of projects subject to loads from A15 – D400.

AQUA



A modern, efficient and versatile range of separators, water treatment and attenuation products for sustainable preservation of vital resources.

SPORT



A range of specialist drainage systems and ancillary products for sports stadiums and facilities.

About HAURATON

Market leader in drainage sector

A market leader within the drainage sector, HAURATON offers modern solutions designed for a variety of project environments and requirements.

HAURATON developed the first drainage system in 1956 and since that time the brand has become known around the world as a benchmark for quality, reliability, durability and service. Accordingly, our products have been supplied onto major projects within international markets for over sixty years. For project references we refer to our company's website (www.hauraton.com).

A multinational company, HAURATON has production facilities, subsidiary offices, technical engineers and trade partners located in many regions of the world, so it can provide industry professionals with close support at every stage of the construction process, from design to installation.

With superior design and engineering, HAURATON sets the industry standard with high-quality and technically innovative products that perfectly meet project requirements for a wide range of applications and sectors.

Sustainability at HAURATON

With a focus and emphasis on developing resource-saving products, sustainable drainage systems are prevalent within the HAURATON range.

The selection and use of raw and processed materials for production is important. The production process, installation and disposal of products, and the intended use of the system should be beneficial to the environment throughout the product and projects entire life span. This is drainage with a vision.

- RECYFIX systems are manufactured from almost 100% recycled Polypropylene (PP), which is again fully recyclable following life-time use.
- The same is true for our procured ductile iron and (stainless) steel materials, which also include a high percentage of post-consumer recycled content.
- Besides using energy mainly generated by photovoltaics (see below), our FASERFIX systems are based on hydration-optimised concrete recipes. Following this, only the essential amount of water is needed.

HAURATON has environmentally sound production facilities, processes and procedures.

- HAURATON maintains an Environmental Management System according to DIN EN ISO 14001:2015 and regularly audits energy consumption and possible improvements in accordance with European norm DIN EN 16247-1.
- we do issue packaging instructions to ensure the maximum capacity of the pallets is used, thereby minimising the amount of packaging per product.
- scrap/ waste from the production process is separated and collected. These materials (metal/ ductile iron, plastic and concrete) are picked up to be completely recycled again.
- the entire roof of our plant is used for generating electricity by photovoltaics, thereby allowing us significant CO₂ savings. Over 2,700 photovoltaic modules on a total area of 4,478 m² deliver on average 80% of HAURATON's electricity requirements.
- logistics routes for order picking and loading were optimised. The measures resulted not only in reduced loading times but also contributes to environmental protection and a significant CO₂ and fuel reduction annually.

Quality and Service

HAURATON has a worldwide reputation for product development using the most modern materials, technologies and processes in the search for new solutions and to optimise existing ones. HAURATON's pioneering role in the drainage sector enables the company to work in partnership with research teams at leading institutes and technical universities specialised in the field of drainage, in search of progress and innovation.

HAURATON products and procedures bring Quality Assurance. The company operates in accordance with DIN EN ISO 9001:2015 and DIN EN ISO 14001:2015. Products and systems have been extensively tested to recognised industry standards in international markets; drainage channels fully comply with DIN EN 1433 and carry the CE Mark for consistent quality.

About this document

This document contains product information and life-cycle analysis relating to a specified project and regarding the following HAURATON products:

xxxxxxxxxxx (article no. + description)

The information and the Life Cycle Analysis („LCA”) below will be project-related as the values relate to the specific HAURATON products used on site.

HAURATON can also provide specific project related information for the following products:

- **RECYFIX®** Systems
- **FASERFIX®** Systems
- **SPORTFIX®**
- **TOP X**
- **DACHFIX®** Facade Drainage
- **DRAINFIX®**
- **AQUAFIX®**
- **LINEFIX®**

The aim of this document is to provide transparency regarding HAURATON products and to support the LEED certification process for our customers by issuing specific information, since our products and our support services can make a potential contribution towards achieving LEED credit points. Since it is at the auditor's discretion whether and how HAURATON's products are considered regarding their environmental impact (in the auditing process), HAURATON assumes no liability whether (and to what extent) the information presented in this document is taken into account or evaluated by the auditor.

Please note that our products' respective contribution to LEED credits may depend on the planning and execution of the specific project being designed in conjunction with the LEED rating system.



Sustainable Sites (SS)

Rainwater Management

→ To reduce rainwater runoff volume from the site.

Rainwater Management – Homes / Midrise

→ To calculate the percentage of the lot area, including the area under roof that is permeable or can direct water to an on-site catchment or infiltration feature.

Nontoxic Pest Control

→ To minimize pest problems and risk of exposure to pesticides



Water Efficiency (WE)

Outdoor Water Reduction

→ To reduce outdoor water consumption

Option 2: Pilot Credit for Prevention through Design.

→ To support employee safety and health outcomes across the building life-cycle through early attention to safety and health hazards.



Innovation (IN)

→ To encourage projects to achieve exceptional or innovative performance. → Option 1: Innovation Credit

Sustainable wastewater management □ **Option 2: Reuse of building wastewater on site by using water from an approved non-potable source like rainwater or industrial process water**



Materials & Resources (MR)

Building product disclosure and optimisation – environmental product declarations

→ To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically, and socially preferable life-cycle impacts.

Product information

Item	Value
Author of the LCA	
Declared unit	Linear meter
Critically reviewed LCA acc. to ISO 14044?	no
Internal Reviewer	R&D department, Hauraton GmbH & Co. KG, Rastatt, Germany

Results of the LCA – ENVIRONMENTAL IMPACTS

Life stages	cycle	Product stage	Constr. process stage	Use stage	End of Life Stage			Benefits & loads beyond system bound.
Declared life cycle (DIN EN 15804)	life stages	A1 - A3	A 4 - A5	B1 - B7	C2	C3	C4	D
GWP [kg CO ₂ -eq.]								
ODP [kg CFC11-eq.]								
AP [kg SO ₂ -eq.]								
EP [kg PO ₄₃ --eq.]								
POCP [kg ethene-eq.]								
ADPE [kg Sb-eq.]								
ADPF [MJ]								

Note: Detailed names of the given abbreviations can be found in the Glossary.

Results of the LCA – RESOURCE USE

Life stages	cycle	Product stage	Constr. process stage	Use stage	End of Life Stage			Benefits & loads beyond system bound.
Declared life cycle (DIN EN 15804)	life stages	A1 - A3	A 4 - A5	B1 - B7	C2	C3	C4	D
PE total [MJ]								
PERE [MJ]								
PERM [MJ]								
PERT [MJ]								
PENRE [MJ]								
PENRM [MJ]								
PENRT [MJ]								
SM [kg]								
RSF [MJ]								
NRSF [MJ]								
FW [m ³]								

Note: Detailed names of the given abbreviations can be found in the Glossary.

Results of the LCA – OUTPUT FLOWS AND WASTE CATEGORIES

Life stages	cycle	Product stage	Constr. process stage	Use stage	End of Life Stage			Benefits & loads beyond system bound.
Declared life cycle (DIN EN 15804)	life stages	A1 - A3	A 4 - A5	B1 - B7	C2	C3	C4	D
HWD [kg]								
NHWD [kg]								
RWD [kg]								
CRU [kg]								
MFR [kg]								
MER [kg]								
EEE [MJ]								
EET [MJ]								

Note: Detailed names of the given abbreviations can be found in the Glossary.



Materials & Resources (MR)

Building product disclosure and optimisation – sourcing of raw materials

→ To encourage the use of products and materials for which life-cycle information is available and that have environmentally, economically and socially preferable life-cycle impacts and sourcing.

Product information

Option 1. raw material source and extraction reporting (1 point)	Description / Unit	
Third-party verified corporate sustainability report (CSR)?	no	Hauraton GmbH & Co. KG is certified according ISO 14001 (environmental management system)
Link to download the report:	t.b.a.	
Option 2. leadership extraction practices (1 point)	Description / Unit	
Participation in an extended producer responsibility program?	no	
Materials reuse	Please describe, which materials are reused	
Post-consumer recycled content	ductile iron / metal	%
	steel / V2A	%
	plastic	%
	concrete	%
Pre-consumer recycled content	ductile iron / metal	%
	steel / V2A	%
	plastic	%
	concrete	%



Materials & Resources (MR)

Building product disclosure and optimisation – material ingredients

→ To reward the selection of products verified to minimise the use and generation of harmful substances based on an accepted methodology for chemical ingredient listing.

Product information

Type of reporting	Certification program (e.g. Green screen, cradle to cradle version/level, REACH)	Value/Comment
Option 2: Material ingredient optimisation	International Alternative Compliance Path – REACH Optimization	Yes, the products do not contain substances that meet REACH criteria for substances of very high concern.



Materials & Resources (MR)

Construction and Demolition Waste Management wastewater management

→ To reduce construction and demolition waste disposed of in landfills and incineration facilities by recovering, reusing, and recycling materials.

text

General Information

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76437 Rastatt
Germany

Contact person:
Phone:
Email:
Homepage: <https://www.hauraton.eu/en/>
Date of this fact sheet: xx.xx.2019

Detailed product description

project-specific text

Technical data

projekt-specific: [LINK to Hauraton-data sheet](#)

Glossary

GWP	Global warming potential
ODP	Depletion potential of the stratospheric ozone layer
AP	Acidification potential of land and water
EP	Eutrophication potential
POCP	Formation potential of tropospheric ozone photochemical oxidants
ADPE	Abiotic depletion potential for non-fossil resources
ADPF	Abiotic depletion potential for fossil resources
PE total	Total use of primary energy resources (=PERT+PENRT)
PERE	Use of renewable primary energy excluding renewable primary energy resources used as raw materials
PERM	Use of renewable primary energy resources used as raw materials
PERT	Total use of renewable primary energy resources
PENRE	Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials
PENRM	Use of non-renewable primary energy resources used as raw materials
PENRT	Total use of non-renewable primary energy resources
SM	Use of secondary material
RSF	Use of renewable secondary fuels
NRSF	Use of non-renewable secondary fuels
FW	Use of net fresh water
HWD	Hazardous waste disposed

Disclaimer:

HAURATON takes reasonable and due care when compiling product information for use within marketing and technical documents. Any guidance, recommendations or advice provided regarding HAURATON products and systems is given without guarantees, as conditions relating to the use and installation of products and systems is beyond the control and influence of the company. The customer has the final responsibility to ensure the suitability of the system regarding its use and application for their project.

This environmental document and the values contained herein have been prepared/provided to the best of our knowledge on the basis of existing data, and where necessary, on the basis of substantiated assumptions by HAURATON GmbH & Co. KG. The information contained in this document does not knowingly omit valid data.

As some of the environmental data and the LCA model were provided by third-party suppliers and service providers, HAURATON GmbH & Co. KG accepts no liability regarding the full accuracy and completeness of the data/content within this document.

Since it is at the auditor's discretion whether and how HAURATON's products are considered regarding their environmental impact (in the auditing process), HAURATON GmbH & Co. KG assumes no liability whether/how/to what extent the environmental information presented in this document (regarding HAURATON products) is considered or evaluated by the auditor. Please note that our products' respective contribution to some LEED credit points also depends on the type of planning and execution of the specific project being designed in conjunction with the LEED rating system.

HAURATON reserves the right to make changes to products, system designs and company information without notice.