







# **EPD** – Environmental Product Declaration

In accordance with ISO 14025:2006 and EN 15804:2012 + A2:2019/AC:2021 for Schwedenmeter 2-10 Folding rule

#### **General information**

Owner of the EPD: Hultafors, Hultaforsvägen 21, 517 21 Hultafors, Sweden Contact: Sandra Lindquist, Quality & Environmental Coordinator Sandra.Lindquist@hultaforsgroup.com

hultafors.com

Location af production site: Hultafors

#### **Programme:**

Programme operator: EPD registration number: Publication date: Valid until:

The International EPD® System, environdec.com EPD International AB EPD-IES-0017433 2025-04-01 2030-04-01

Geographical scope:

Europe



## Tools to rely on

Hultafors is a leading brand offering reliable hand tools designed for discerning craftsmen around the world. For over 140 years we have been developing innovative tools to rely on, in every situation.

Hultafors offer a wide selection of reliable hand tools for measuring, marking, cutting, striking and levelling as well as pry and wrecking bars. Developing new products is what drives us. When we believe in an idea we give 100%. The result is a range of tools that deliver the best possible function, reliability and precision. Tools you can rely on in all situations, every day.

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### **EPD**<sup>®</sup>

### Schwedenmeter Length 2 meters

Schwedenmeter is a folding rule made from lacquered European birch wood intended for measuring distances. Beyond wood, the rule also consists of steel hinges, which are composed of three sub-components, and brass end tips.

UN CPC code: 31911.

Geographical scope: European market.

Product-related or management system-related certifications: ISO9001 and 14001 certified.

## LCA information – Life cycle assessment

Life Cycle Assessment is a method for analysing the environmental impact of a product throughout its life-cycle, from the extraction of raw materials (the cradle) to handling the waste (the grave).

#### **Declared unit**

One (1) piece of folding rule Schwedenmeter 2-10. The folding rule weighs 101 g and has a length of 2 meters.

To convert the results to impact per meter, the results should thus be divided by 2.

#### Time representativeness & data quality

The data used to model the manufacturing of the folding rule is representative for year 2023. No data older than 10 years has been used.

Specific data has been retrieved for the manufacturing process. Similarly, specific data has been collected for the transports and some of the production of the steel used in the rule's hinges. The remaining data has been modelled using generic data. The collected data was reviewed according to EN 15804 and is deemed to be of good quality.

#### Database(s) and LCA software used

The database ecoinvent 3.10 and LCA software SimaPro 10.0 was used.

#### Allocation

Allocation of resources used in manufacturing is done per produced unit, using the total number of produced folding rules at Hultafors as reference. The allocation of waste follows the polluter-pays principle. The system boundary to the subsequent product system is set where the waste (e.g., the discarded product) reaches the end-of-waste state, i.e., when the material has become a usable flow (e.g., for reuse, energy recovery and/or recycling).

#### Cut-off criteria

The cut-off criteria established by the PCR is 1% of all material and energy flows to a single unit process and 5% of total inflows (mass and energy) per module. No cut-offs exceeding this limit have been made.

#### Description of system boundaries

The study's system boundaries are of type b) cradle to gate with options, modules C1–C4, module D and with optional modules A4-A5 (A1–A3 + C + D and additional modules A4–A5). The product does not give rise to any environmental impact during use and subsequently module B is excluded.

#### More information

Manufacturing takes place in Hultafors, Sweden. European birch wood and the other raw materials are transported by train and/ or truck to Hultafors. The manufacturing process includes drying of wood, sawing, lacquering, production of steel hinges and brass fittings, and assembly. The electricity used at the facility comes from renewable sources (0.02 kg CO2 eq/kWh) and is certified with a Guarantee of Origin. The finished products are packaged and distributed to Hultafors' European customers by truck. The weighted average of the transportation distance is estimated to 1103 km and the transport is modelled using "Transport, freight, lorry 16-32 metric ton, EURO6 [RER]] transport, freight, lorry 16-32 metric ton, EURO6 [Out-off, U" (diesel).

The installation entails the disposal of the consumer packaging and is modelled based on the waste handling in the European countries to which Hultafors sell their products. For the product's end-of-life, no deconstruction of the product is included. Instead, as a conservative assumption, the complete product is modelled to be incinerated at end-of-life.



#### **Construc-**Resource recovery Product stage tion pro-Use stage End of life stage cess stage De-construction demolition Construction installation Operational energy use use Raw material supply Reuse-Recovery-Recycling-potential water Waste processing Manufacturing Refurbishment Replacement Maintenance **Operational** Transport Transport Transport Disposal Repair Use Module A1 A2 A3 A5 **B1 B2 B3 B4 B**5 **B6 B7 C1 C2** СЗ **C4** D A4 Modules ND ND ND ND ND ND ND х х х х х х х х х х declared Geography Europe Europe Europe Europe Europe ND ND ND ND ND ND ND Europe Europe Europe Europe Europe Specific 64% 100% \_ \_ 0% --\_ \_ -\_ \_ \_ --. data used

## Modules declared, geographical scope, share of specific data (in GWP-GHG results) and data variation (in GWP-GHG results):

X: Module declared, ND: Module not declared.

## **Content information**

Product components	Weight, g	Post-consumer material, weight-%	Biogenic material, weight-%	Biogenic material, kg C/kg
Wood	48	0%	100%	0.02
Steel hinge	40	1%	0%	0
Brass tip	1.4	0%	0%	0
Paint	0.15 0%		>0%, no specific data	
Lacquer	12	0%	0%	0
TOTAL	101	<1%	47%	0.02
Packaging materials	Weight, g	Weight-% (versus the product)	Weight biogenic carbon, weight-%	kg C/product
Cardboard	5.5	5.5%	100%	0.002
Paper label	0.1	0.1%	100%	<0.0001
Plastic	0.1	0.1%	0%	0
Pallet	6.9	6.9%	99%	0.0001

The product does not contain any Substances of Very High Concern (SVHC) that exceed 0.1% of the product weight.

## Results of the environmental performance indicators

EN 15804 reference package based on EF 3.1 has been used for calculating the environmental impact.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding threshold values, safety margins and/or risks. It should be noted that the EPD results of modules A1-A3 without considering the results of module C is discouraged.

#### Mandatory impact category indicators according to EN 15804 Results per declared unit

Indicator	Unit	A1-A3	A4	A5	C1	C2	C3	C4	D
GWP-total	kg CO2 eq	1.51E-01	2.23E-02	9.30E-03	0.00E+00	7.69E-03	7.46E-02	2.97E-02	-2.50E-02
GWP-fossil	kg CO2 eq	2.28E-01	2.23E-02	1.80E-03	0.00E+00	7.69E-03	6.31E-04	2.97E-02	-2.51E-02
GWP-biogenic	kg CO2 eq	-7.94E-02	4.05E-06	7.50E-03	0.00E+00	6.40E-07	7.39E-02	8.51E-06	1.73E-04
GWP-luluc	kg CO2 eq	2.59E-03	7.41E-06	2.53E-07	0.00E+00	6.32E-07	1.02E-07	5.01E-06	-5.77E-05
ODP	kg CFC11 eq	7.37E-09	4.44E-10	2.73E-11	0.00E+00	1.51E-10	8.80E-12	2.98E-10	-5.94E-10
AP	mol H+ eq	1.85E-03	4.65E-05	7.68E-06	0.00E+00	3.81E-05	7.37E-06	3.77E-05	-1.46E-04
EP-freshwater	kg P eq	1.36E-05	1.74E-07	8.35E-09	0.00E+00	1.58E-08	9.79E-09	6.55E-07	-2.41E-06
EP-marine	kg N eq	4.54E-04	1.09E-05	3.38E-06	0.00E+00	1.71E-05	3.61E-06	9.03E-06	-2.10E-05
EP-terrestrial	mol N eq	5.10E-03	1.21E-04	3.59E-05	0.00E+00	1.87E-04	3.84E-05	1.00E-04	-2.99E-04
POCP	kg NMVOC eq	1.67E-03	7.73E-05	1.45E-05	0.00E+00	7.88E-05	9.61E-06	4.06E-05	-8.55E-05
ADP-minerals & metals*	kg Sb eq	9.30E-06	7.27E-08	2.55E-09	0.00E+00	4.77E-09	1.03E-09	4.37E-08	-4.06E-08
ADP-fossil*	MJ	3.06E+00	3.14E-01	1.86E-02	0.00E+00	9.61E-02	5.13E-03	1.54E-01	-5.95E-01
WDP*	m3 depriv.	1.04E-01	1.30E-03	5.19E-05	0.00E+00	1.18E-04	1.05E-04	1.84E-03	-6.30E-03
Acronyms	GWP-fossil = Global Warming Potential fossil fuels; GWP-biogenic = Global Warming Potential biogenic; GWP-luluc = Global Warming Potential land use and land use change; ODP = Depletion potential of the stratospheric ozone layer; AP = Acidification potential, Accumulated Exceedance; EP-freshwate = Eutrophication potential, fraction of nutrients reaching freshwater end compartment; EP-marine = Eutrophication potential, fraction of nutrient reaching marine end compartment; EP-terrestrial = Eutrophication potential Accumulated Exceedance; POCP = Formation potential, fraction of nutrient								otential land use e; EP-freshwater ion of nutrients of tropospheric

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

\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

## Additional mandatory and voluntary impact category indicators

#### **Results per declared unit**

Indicator	Unit	A1-A3	A4	A5	C1	C2	СЗ	C4	D
GWP-GHG**	kg CO2 eq	2.32E-01	2.23E-02	1.96E-03	0.00E+00	7.69E-03	6.32E-04	2.97E-02	-2.50E-02
PM	disease inc.	9.65E-08	1.64E-09	1.76E-10	0.00E+00	9.53E-10	8.03E-11	5.11E-10	-9.74E-10
IR***	kBq U-235 eq	1.22E-02	1.45E-04	8.57E-06	0.00E+00	1.65E-05	3.50E-06	2.24E-04	-5.81E-03
ETP-FW*	CTUe	2.80E+00	8.55E-02	6.38E-03	0.00E+00	7.08E-03	8.35E-03	4.43E-01	-8.27E-02
HTTP-C*	CTUh	1.32E-08	1.59E-10	5.51E-12	0.00E+00	1.11E-11	1.21E-11	7.10E-11	-1.06E-10
HTTP-NC*	CTUh	1.06E-08	1.97E-10	1.04E-11	0.00E+00	1.57E-11	7.66E-11	9.63E-11	-2.48E-10
Land use, SQP*	Pt	2.54E+01	1.90E-01	3.57E-03	0.00E+00	1.07E-02	1.33E-03	4.05E-02	-7.62E-01
Acronyms	PM: Particulate Matter, IRP: Ionizing Radiation - Human Health, ETP-FW: Ecotoxicity Potential – Freshwater, HTP-C: Human Toxicity Potential – Cancer, HTP-NC: Human Toxicity Potential – Non-Cancer, SQP: Soil Quality Potential Index								

\* Disclaimer: The results of this environmental impact indicator shall be used with care as the uncertainties of these results are high or as there is limited experience with the indicator.

\*\* Disclaimer: This indicator accounts for all greenhouse gases except biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product. As such, the indicator is identical to GWP-total except that the CF for biogenic CO2 is set to zero.

\*\*\* Disclaimer: This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

## **Resource use indicators**

The use of primary energy resources is calculated according to option B in Annex 3 in PCR Construction Products v.1.3.4.

#### **Results per declared unit**

Indicator	Unit	A1-A3	A4	A5	C1	C2	СЗ	C4	D
PERE	MJ	8.43E+00	5.40E-03	3.08E-04	0.00E+00	5.90E-04	1.78E-04	8.20E-03	-3.22E-01
PERM	MJ	1.00E+00	0.00E+00	-9.48E-02	0.00E+00	0.00E+00	-9.10E-01	0.00E+00	0.00E+00
PERT	MJ	9.44E+00	5.40E-03	-9.44E-02	0.00E+00	5.90E-04	-9.09E-01	8.20E-03	-3.22E-01
PENRE	MJ	2.86E+00	3.34E-01	1.98E-02	0.00E+00	1.02E-01	5.58E-03	1.63E-01	-6.19E-01
PENRM	MJ	3.07E-01	0.00E+00	-3.10E-03	0.00E+00	0.00E+00	-3.04E-01	0.00E+00	0.00E+00
PENRT	MJ	3.16E+00	3.34E-01	1.67E-02	0.00E+00	1.02E-01	-2.98E-01	1.63E-01	-6.19E-01
SM	kg	1.07E-02	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
RSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
NRSF	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m3	2.65E-03	4.73E-05	4.15E-06	0.00E+00	5.40E-06	1.15E-05	9.58E-05	-2.04E-04
Acronyms	PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-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; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as raw materials; PENR = Use of non-renewable primary energy resources used as ra								

ding non-renewable primary energy resources; SM = Use of non-renewable primary energy resources; SM = 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; SFF = Use of non-ren

## Waste indicators

#### **Results per declared unit**

Indicator	Unit	Tot. A1-A3	A4	A5	C1	C2	C3	C4	D-module
Hazardous waste disposed	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Non-hazardous waste disposed	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radioactive waste disposed	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

## Output flow indicators

### **Results per declared unit**

Indicator	Unit	Tot.A1-A3	A4	A5	C1	C2	С3	C4	D-module
Components for reuse	kg	0.00E+00	0.00E+00	6.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	7.95E-03	0.00E+00	4.31E-03	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	0.00E+00	0.00E+00
Exported energy, electricity	MJ	6.41E-01	0.00E+00	6.57E-03	0.00E+00	0.00E+00	2.91E-01	0.00E+00	0.00E+00
Exported energy, thermal	MJ	1.50E+00	0.00E+00	1.53E-02	0.00E+00	0.00E+00	6.79E-01	0.00E+00	0.00E+00

## Programme-related information and verification

Programme:	The International EPD® System EPD International AB Box 210 60 SE-100 31 Stockholm Sweden www.environdec.com info@environdec.com
EPD registration number:	EPD-IES-0017433
Published:	2025-04-01
Valid until:	2030-04-01
Product Category Rules:	CEN standard EN 15804 serves as the Core Product Category Rules (PCR)
Product group classification:	UN CPC code: 31911
Geographical scope	Europe

Product Category Rules (PCR): Construction products 2019:14, version 1.3.4 and c-PCR-006 (to PCR 2019:14) version: 2019-12-20

PCR review was conducted by:

The Technical Committee of the International EPD System.

See www.environdec.com for a list of members.

Review chair: Claudia A. Peña, University of Concepción, Chile.

The review panel may be contacted via the Secretariat www.environdec.com/contact

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

X EPD verification by individual verifier

Third party verifier: Mats Zackrisson, RISE Approved by: The International EPD® System

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

🗌 Yes 🛛 No

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

EPDs within the same product category but registered in different EPD programmes, or not compliant with EN 15804, may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterisation factors); have equivalent content declarations; and be valid at the time of comparison. For further information about comparability, see EN 15804 and ISO 14025.

## References

General Programme Instructions of the International EPD® System. Version 5.0

PCR 2019:14. Construction products. Version 1.3.4

c-PCR-006 (to PCR 2019:14) version: 2019-12-20

ISO 14025:2006, Environmental labels and declarations - Type III environmental declarations - Principles and procedures

ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework

ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines (pp. 1–54)

Life Cycle Assessment of Folding Rule by Hultafors, Miljögiraff, 2024



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