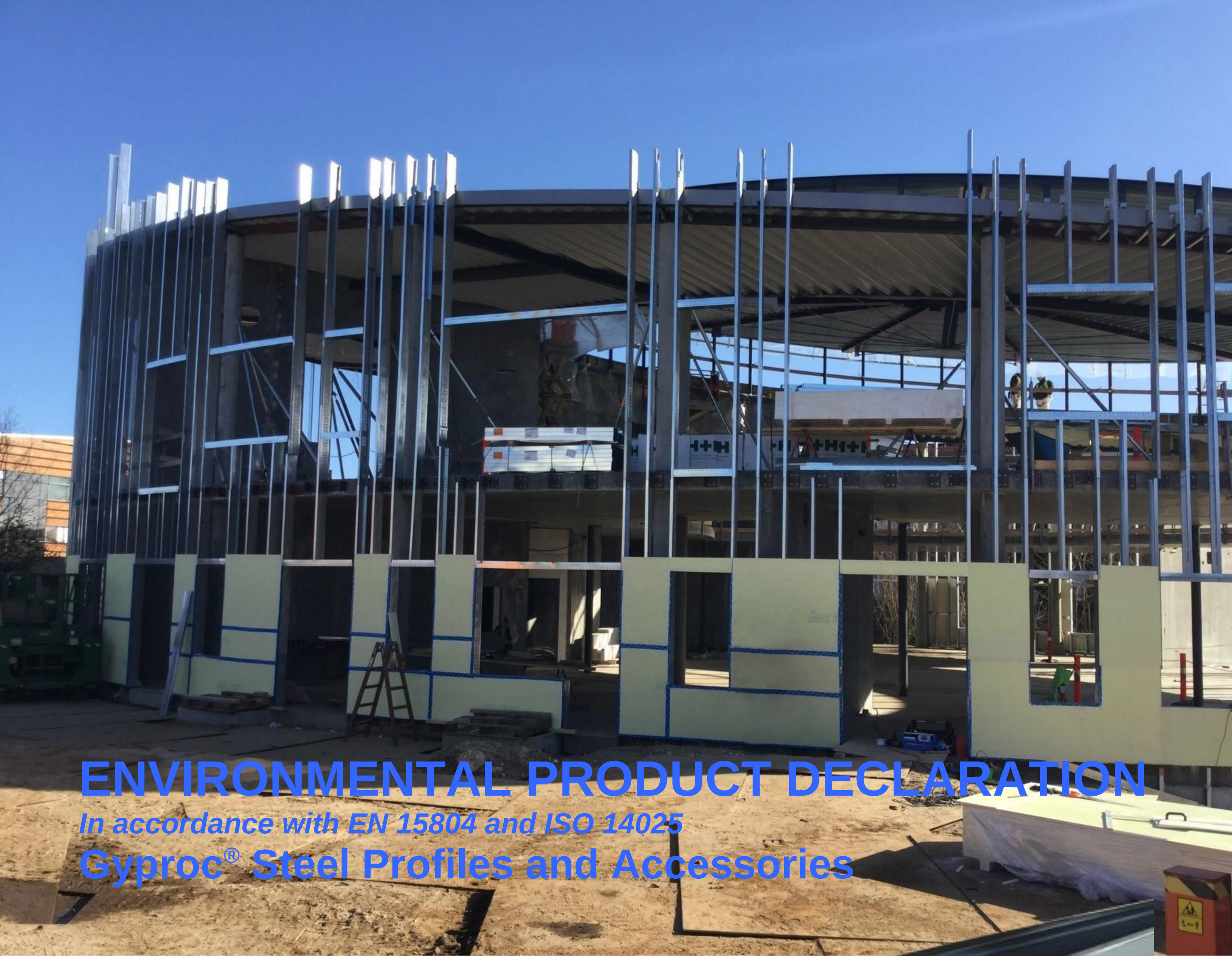
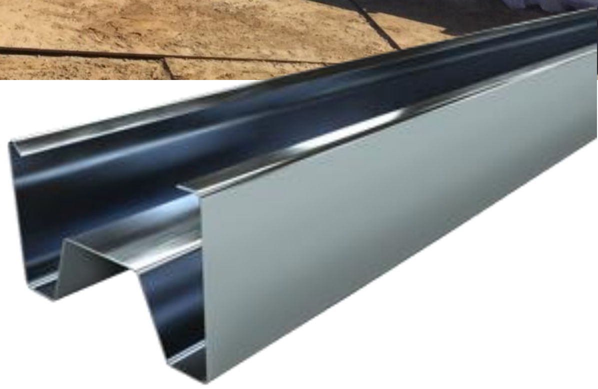


ENVIRONMENTAL PRODUCT DECLARATION

In accordance with EN 15804 and ISO 14025

Gyproc® Steel Profiles and Accessories



Publication Date: 24th February 2017
Valid Until: 7th February 2022
Version : 1.0

EPD VERIFIED

The environmental impacts of this product have been assessed over its whole life cycle. Its Environmental Product Declaration has been verified by an independent third party.

Registration N°

EPD №: S-P-00782

ECO PLATFORM EPD EN 15804 VERIFIED

ECO EPD 00000485

EPD® THE INTERNATIONAL EPD® SYSTEM

Gyproc SAINT-GOBAIN

General information

Manufacturer: Saint-Gobain Sweden AB, Gyproc, Kalmarleden 50, 746 37 Bålsta, Sweden

Programme used: International EPD® System (www.environdec.com)

Publisher: Saint-Gobain Sweden AB, Gyproc, Kalmarleden 50, 746 37 Bålsta, Sweden **Owner of declaration:** Malin Dalborg

EPD registration number/declaration number: S-P-00782

PCR identification: This EPD has been made according to the International EPD System PCR 2012:01 Construction Products and Construction Services (combined PCR & PCR Basic Module Version 2.0).

Product / product family name and manufacturer represented: Steel profiles and accessories produced by Ruukki Sverige AB in Anderslöv, Sweden for Saint-Gobain Sweden AB.

Declaration issued: 7th February 2017

Valid until: 7th February 2022

Demonstration of verification: EN 15804 as the core PCR + The International EPD System PCR for Construction Products and CPC 54 Construction Services V2

An independent verification of the declaration was made, according to ISO 14025:2010 and EN 15804:2012. This verification was external and conducted by the following third party: Håkan Stripple at IVL Swedish Environmental Research Institute, based on the PCR mentioned above.

EPD Prepared by: Alex Hardwick, thinkstep, UK. Contact: alex.hardwick@thinkstep.com

Declaration of Hazardous substances: None

Environmental certifications held at plant: ISO 14001, ISO 50001

Scope: The EPD is based on 2014 production data for the Anderslöv site producing hot dip galvanized steel profiles and accessories used as drywall partition systems. Steel production data for HDG coil is based on production at the Raahe and Hämeenlinna production plants in 2012. This EPD covers information modules A1 to C4 (cradle to gate with options) with the optional module D also reported as defined in EN 15804:2012.

The Declared Unit is 1 metric tonne of installed hot dip galvanized steel profiles and accessories.

CEN standard EN 15804:2012 serves as the core for the PCR[a] used in this EPD
Independent verification of the declaration, according to EN ISO 14025:2010 ☐ **Internal** ☒ **External**
Third party verifier[b]: Håkan Stripple at IVL Swedish Environmental Research Institute, P.O. Box 53021, SE-400 14 Gothenburg, Sweden Hakan.Stripple@IVL.se Accredited by: Approved by the International EPD® System.
[a] Product Category Rules [b] Optional for business-to-business communication; mandatory for business to consumer communication (see EN ISO 14025:2010, 9.4)

Product description

Description of the main product components and/or materials:

This environmental product declaration covers Gyproc steel profiles and steel accessories (not screws) for interior and exterior applications which are available with different surface treatments. The profiles have been manufactured from hot-dip galvanized sheet steel in conformity with EN 10346. Zinc coating provides a good level of protection against corrosion. The zinc coating is lead-free and has a minimum zinc content of 99 %.

Gyproc systems and products are primarily used for the mounting of plasterboard in the construction of interior walls, exterior walls, ceilings and floors. Products can be mounted at the building site or prefabricated as elements. The products are suitable for use in load-bearing and non-load-bearing structures such as curtain walling in apartment buildings, offices, remodelling of residential buildings with penthouses, and remodelling of residential and office buildings. Profiles that are intended to be exposed on the outside of a structure or in external walls are manufactured from galvanized steel with a coating of zinc and a layer of polyurethane to achieve the corrosion class C4. Gyproc profiles for external walls are slotted in web life to minimize heat conduction and channels are provided with 4 mm polyethylene foam strip to optimize moisture insulation and air sealing. Products to improve sound insulation in internal walls are composed of steel channels and corner profiles with seals made of EPDM rubber.

Gyproc steel profiles are recyclable and efficiently packaged and can be offered cut to the right lengths which reduces transportation cost and minimizes the generation of waste at the building site. Figure 1 shows a life cycle diagram for plasterboard systems including steel profiles and accessories.

LCA calculation information	
Declared Unit	1 metric tonne of installed hot dip galvanized steel profiles and accessories
System boundaries	Cradle to Gate with Options: Upstream & Core processes (A1 – A3), Downstream processes (A4 – A5, B1 – B7, C1 – C4 and module D).
Reference service life (RSL)	50 years
Cut-off rules	Life Cycle Inventory data for a minimum of 99 % of total inflows to the upstream and core module shall be included.
Allocations	During A3: water use, recycling, energy and waste data have been calculated on a mass basis.
Geographical coverage and time period	Upstream and downstream data includes Sweden, and Finland. Data for the A3 stage was collected 1 January 2014- 1 January 2015 from Ruukki's Anderslöv production plant in Sweden.

According to EN 15804, EPDs of construction products may not be comparable if they do not comply with this standard. According to ISO 21930, EPDs might not be comparable if they are from different programs.

Life cycle stages

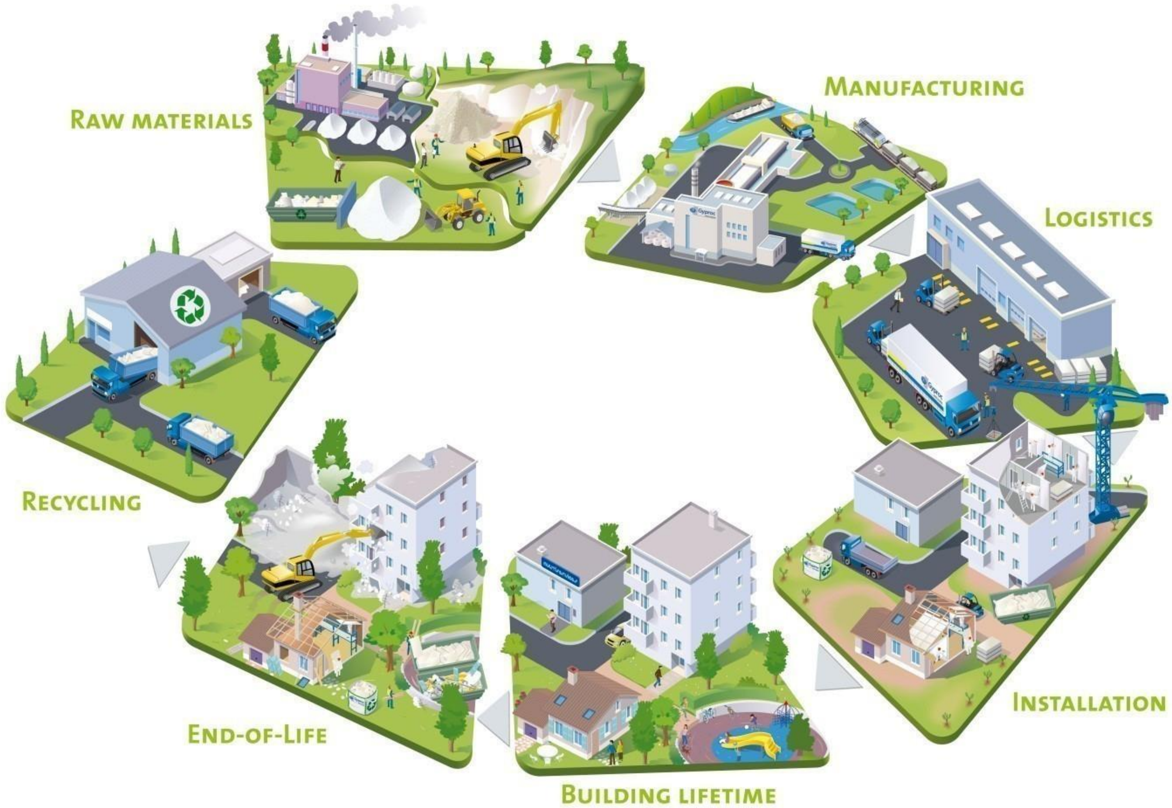


Figure 1: Flow diagram of the product life cycle. The process of the product life cycle is described below.

Product stage, A1-A3

Description of the stage:
A1: Raw material extraction and processing, processing of secondary material input (e.g. recycling processes). This includes the extraction and processing of all raw materials and energy which occur upstream from the manufacturing process.

A2: Transport to the manufacturer. The raw materials are transported to the manufacturing site. The modelling includes road, boat and/or train transportations of each raw material.

A3: Manufacturing, including provision of all materials, products and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the product stage. This module includes the manufacture of products. The use of packaging material is taken into account at this stage. The processing of any waste arising from this stage is also included.

Manufacture:
The steel used to produce hot-dip galvanised profiles is produced by Ruukki via the integrated blast furnace/basic oxygen furnace (BF/BOF) route. The semi-finished hot rolled coil is produced at Ruukki's Raahe site before being transported to the Hämeenlinna rolling mill where hot dip galvanized sheet is produced. The hot dip galvanized sheet is then transported to Anderslöv where it is manufactured into the final steel profile product.

In the integrated steel production route, the blast furnace is used to produce pig iron from various forms of iron ore (sinter, pellets, lump ore) with coke used as the reducing agent. The pig iron is transferred to the basic oxygen furnace where it is converted to steel by decreasing the carbon content. The BOF is also used to add any alloys and adjust other chemical properties of the steel. A small quantity of steel scrap is added to the BOF, primarily for temperature control. The liquid steel is cast into slabs and rolled to produce hot rolled coil. Hot rolled coil is then transported by rail to the Hämeenlinna rolling mill where it is cold rolled, annealed, pickled and finally hot dip galvanized to produce hot dip galvanized steel sheet. These sheets are transported by truck and ferry to Anderslöv. At Anderslöv, the sheets are formed into the final shapes required by Gyproc's customers with small amounts of glue, sealant and rubber tubing also used for some product lines. A mixture of timber, plastic film, plastic strapping and metal strapping is used to package the steel profiles for transport to the customer. Steel waste generated during fabrication is sent for recycling. A manufacturing process flow diagram is displayed in figure 2.

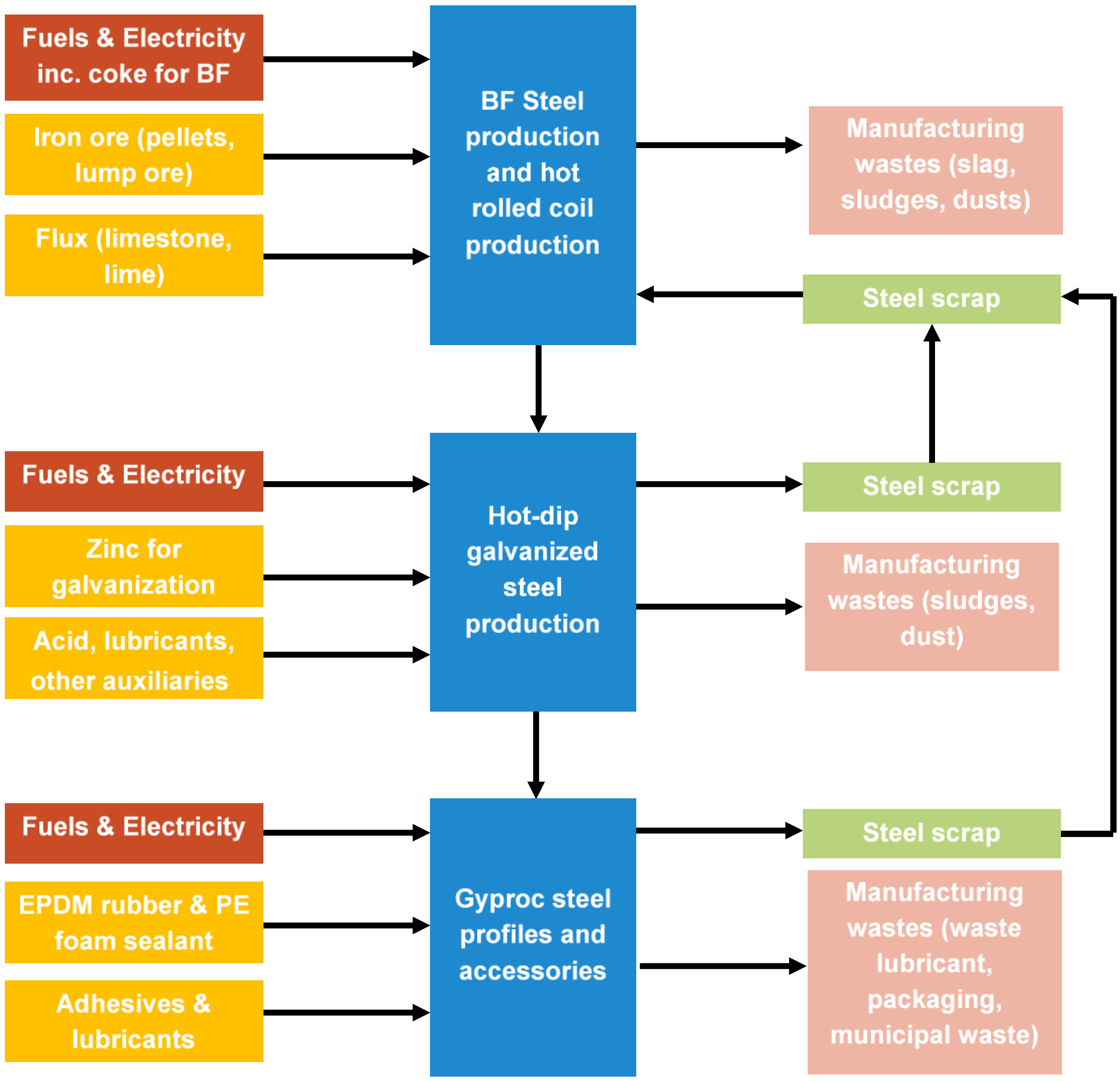


Figure 2: Manufacturing process flow diagram.

Construction process stage, A4-A5

Description of the stage:
A4: Transport to the building site.

A5: Installation into the building, including provision of all materials, products and energy, as well as waste processing up to the end-of-waste state or disposal of final residues during the construction process stage. These information modules also include all impacts and aspects related to any losses during this construction process stage (i.e. production, transport, and waste processing and disposal of the lost products and materials).

Transport to the building site:

PARAMETER	VALUE (expressed per declared unit)
Fuel type and consumption of vehicle or vehicle type used for transport e.g. long distance truck, boat, etc.	Vehicle 1: Euro 5 truck-trailer with a 27 tonne payload capacity. Assumed to be fully laden on outward journey with an empty return. Fuel type: Diesel Vehicle 2: Roll-on, roll-off ferry, 10000 dwt. Average consumption: 0.61 litres per km (inc. empty return)
Distance	613 km by truck and 13.7 km by ferry. Values based on weighted average values for 2014 of transport to customer sites in Denmark, Finland, Norway and within Sweden.
Capacity utilisation (including empty returns)	100 % volume capacity 100 % empty returns
Bulk density of transported products	7850 kg/m³
Volume capacity utilisation factor	1

Installation in the building:

PARAMETER	VALUE (expressed per declared unit)
Ancillary materials for installation (specified by materials)	None
Water use	None
Other resource use	None
Quantitative description of energy type (regional mix) and consumption during the installation process	None
Wastage of materials on the building site before waste processing, generated by the product's installation (specified by type)	26 kg/tonne (2.6 %)
Output materials (specified by type) as results of waste processing at the building site e.g. of collection for recycling, for energy recovering, disposal (specified by route)	24.7 kg to recycling (95 %) 1.3 kg to landfill (5 %) based on European steel recycling statistics for internal light steel from Eurofer.
Direct emissions to ambient air, soil and water	There are no emissions to indoor air from the steel profiles, either in the form of zinc from the HDG or from foams, sealants and adhesives, which are stable when dry and do not contain any VOC emitting substances.

Use stage (excluding potential savings), B1-B7

Description of the stage:
The use stage, related to the building fabric includes:
B1: Use or application of the installed product

B2: Maintenance

B3: Repair

B4: Replacement

B5: Refurbishment, including provision and transport of all materials, products and related energy and water use, as well as waste processing up to the end-of-waste state or disposal of final residues during this part of the use stage. These information modules also include all impacts and aspects related to the losses during this part of the use stage
(i.e. production, transport, and waste processing and disposal of the lost products and materials).

Maintenance:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Maintenance process	None required during lifetime of steel profiles
Maintenance cycle	None required during lifetime of steel profiles
Ancillary materials for maintenance (e.g. cleaning agent, specify materials)	None required during lifetime of steel profiles
Wastage material during maintenance (specify materials)	None required during lifetime of steel profiles
Net fresh water consumption during maintenance	None required during lifetime of steel profiles
Energy input during maintenance (e.g. vacuum cleaning), energy carrier type, (e.g. electricity) and amount, if applicable and relevant	None required during lifetime of steel profiles

Repair:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Repair process	None required during lifetime of steel profiles
Inspection process	None required during lifetime of steel profiles
Repair cycle	None required during lifetime of steel profiles
Ancillary materials (e.g. lubricant, specify materials)	None required during lifetime of steel profiles
Wastage material during repair (specify materials)	None required during lifetime of steel profiles
Net fresh water consumption during repair	None required during lifetime of steel profiles
Energy input during repair (e.g. crane activity), energy carrier type, (e.g. electricity) and amount if applicable and relevant	None required during lifetime of steel profiles

Replacement:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Replacement cycle	None required during lifetime of steel profiles
Energy input during replacement (e.g. crane activity), energy carrier type, (e.g. electricity) and amount if applicable and relevant	None required during lifetime of steel profiles
Exchange of worn parts during the product's life cycle (e.g. zinc galvanized steel sheet), specify materials	None required during lifetime of steel profiles

Refurbishment:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Refurbishment process	None required during lifetime of steel profiles
Refurbishment cycle	None required during lifetime of steel profiles
Material input for refurbishment (e.g. bricks), including ancillary materials for the refurbishment process (e.g. lubricant, specify materials)	None required during lifetime of steel profiles
Wastage material during refurbishment (specify materials)	None required during lifetime of steel profiles
Energy input during refurbishment (e.g. crane activity), energy carrier type, (e.g. electricity) and amount	None required during lifetime of steel profiles
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants)	None required during lifetime of steel profiles

Use of energy and water:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Ancillary materials specified by material	None required during lifetime of steel profiles
Net fresh water consumption	None required during lifetime of steel profiles
Type of energy carrier (e.g. electricity, natural gas, district heating)	None required during lifetime of steel profiles
Power output of equipment	None required during lifetime of steel profiles
Characteristic performance (e.g. energy efficiency, emissions, variation of performance with capacity utilisation etc.)	None required during lifetime of steel profiles
Further assumptions for scenario development (e.g. frequency and time period of use, number of occupants)	None required during lifetime of steel profiles

End-of-life stage C1-C4

Description of the stage: The end-of-life stage includes:
C1: De-construction, demolition

C2: Transport to waste processing

C3: Waste processing for reuse, recovery and/or recycling

C4: Disposal, including provision and all transport, provision of all materials, products and related energy and water use.

End-of-life:

PARAMETER	VALUE (expressed per declared unit) / DESCRIPTION
Collection process specified by type	95 % of waste is collected by truck and taken to be recycled, while the remaining 5 % of waste is collected by truck to be landfilled
Recovery system specified by type	95 % recycled
Disposal specified by type	5 % landfilled
Assumptions for scenario development (e.g. transportation)	Steel profile waste is transported a maximum of 50 km by road from construction/demolition sites to waste processing and disposal sites. In this study, a distance of 50 km has been assumed.

Reuse/recovery/recycling potential, D

Description of the stage: Module D includes: reuse, recovery and/or recycling potentials, expressed as net impacts and benefits.

Credits are given for the net scrap that is produced at the end of a final product's life. This net scrap is determined as follows:

Net scrap = Amount of steel recycled at end-of-life – Scrap input from previous product life cycle

The steel scrap that is generated during production is reused directly in a cycle ("loop"). This internally recycled process scrap is not used to calculate the credit that is reported in Module D. After the collection stage, the demand for scrap input to the production is saturated by the amount of steel recycled at end-of-life (see equation above).

The value of scrap has been calculated in accordance with the methodology developed by the World Steel Association "worldsteel" and is calculated based on the difference between a theoretical 100 % primary steel (BF/BOF route) and 100 % secondary steel (EAF route). Note that for ozone depletion potential (ODP), renewable primary energy demand (PERE/PERT) and radioactive waste disposed (RWD), module D shows an environmental burden rather than a benefit. This is a result of the EAF route being powered by grid electricity while the BF/BOF route uses hard coal as its main fuel source. This means that the EAF route uses significantly more nuclear power than the BF/BOF route, which accounts for the higher impact for radioactive waste and ozone depleting CFCs which are emitted in the uranium enrichment process. Renewable primary energy demand is higher for the EAF route due to the presence of renewable electricity sources (e.g. wind, solar, hydro, biomass, biogas) in the power grid.

LCA results

Description of the system boundary (X = Included in LCA, MND = Module Not Declared)

CML 2001 – Apr. 2013 has been used as the impact model. Primary data have been supplied for the Anderslöv plant, and for the impacts associated with hot-dip galvanized steel production by Ruukki at Raahe and Hämeenlinna. Secondary data come from the GaBi database 2015. All emissions to air, water, and soil, and all materials and energy used have been included.

PRODUCT STAGE			CONSTRUCTION STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
Raw material supply	Transport	Manufacturing	Transport	Construction-Installation process	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-recovery
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ENVIRONMENTAL IMPACTS

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Global Warming Potential (GWP) - *kg CO_2 eq./DU*	2.9E+03	4.3E+01	8.0E+01	0	0	0	0	0	0	0	0	3.3E+00	0	2.4E+00	-1.6E+03
	The global warming potential of a gas refers to the total contribution to global warming resulting from the emission of one unit of that gas relative to one unit of the reference gas, carbon dioxide, which is assigned a value of 1.														
Depletion potential of the stratospheric ozone layer (ODP) *kg CFC 11 eq./DU*	1.1E-05	3.1E-10	2.8E-07	0	0	0	0	0	0	0	0	2.4E-11	0	8.9E-11	3.6E-09
	Destruction of the stratospheric ozone layer which shields the earth from ultraviolet radiation harmful to life. This destruction of ozone is caused by the breakdown of certain chlorine and/or bromine containing compounds (chlorofluorocarbons or halons), which break down when they reach the stratosphere and then catalytically destroy ozone molecules.														
Acidification potential (AP) *kg SO_2 eq./DU*	7.0E+00	1.3E-01	1.8E-01	0	0	0	0	0	0	0	0	9.5E-03	0	7.0E-03	-6.1E+00
	Acid depositions have negative impacts on natural ecosystems and the man-made environment incl. buildings. The main sources for emissions of acidifying substances are agriculture and fossil fuel combustion used for electricity production, heating and transport.														
Eutrophication potential (EP) *kg $(PO_4)^{3-}$ eq./DU*	8.6E-01	3.0E-02	2.3E-02	0	0	0	0	0	0	0	0	2.2E-03	0	8.5E-04	-4.8E-01
	Excessive enrichment of waters and continental surfaces with nutrients, and the associated adverse biological effects.														
Formation potential of tropospheric ozone (POCP) *kg Ethene eq./DU*	6.1E-01	-3.6E-02	1.6E-02	0	0	0	0	0	0	0	0	-2.9E-03	0	7.8E-04	-8.8E-01
	Chemical reactions brought about by the light energy of the sun. The reaction of nitrogen oxides with hydrocarbons in the presence of sunlight to form ozone is an example of a photochemical reaction.														
Abiotic depletion potential for non-fossil resources (ADP-elements) - *kg Sb eq./DU*	2.0E-01	3.2E-06	5.2E-03	0	0	0	0	0	0	0	0	2.5E-07	0	4.7E-07	1.1E-04
Abiotic depletion potential for fossil resources (ADP-fossil fuels) - *MJ/DU*	3.3E+04	5.9E+02	8.6E+02	0	0	0	0	0	0	0	0	4.6E+01	0	3.5E+01	-1.5E+04
	Consumption of non-renewable resources, thereby lowering their availability for future generations.														

RESOURCE USE

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Use of renewable primary energy excluding renewable primary energy resources used as raw materials *MJ/DU*	1.9E+03	3.4E+01	5.0E+01	0	0	0	0	0	0	0	0	2.6E+00	0	2.5E+00	5.1E+02
Use of renewable primary energy used as raw materials *MJ/DU*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total use of renewable primary energy resources (primary energy and primary energy resources used as raw materials) *MJ/DU*	1.9E+03	3.4E+01	5.0E+01	0	0	0	0	0	0	0	0	2.6E+00	0	2.5E+00	5.1E+02
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials *- MJ/DU*	3.5E+04	6.0E+02	9.1E+02	0	0	0	0	0	0	0	0	4.6E+01	0	3.6E+01	-1.5E+04
Use of non-renewable primary energy used as raw materials *MJ/DU*	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total use of non-renewable primary energy resources (primary energy and primary energy resources used as raw materials) *- MJ/DU*	3.5E+04	6.0E+02	9.1E+02	0	0	0	0	0	0	0	0	4.6E+01	0	3.6E+01	-1.5E+04
Use of secondary material *kg/DU*	1.1E+02	0	2.9E+00	0	0	0	0	0	0	0	0	0	0	0	0
Use of renewable secondary fuels- *MJ/DU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of non-renewable secondary fuels *- MJ/DU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Use of net fresh water - *m^3/DU*	1.3E+01	8.3E-02	3.6E-01	0	0	0	0	0	0	0	0	6.5E-03	0	2.6E-04	-1.3E+00

WASTE CATEGORIES

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Hazardous waste disposed *kg/DU*	9.0E-05	4.4E-05	2.8E-06	0	0	0	0	0	0	0	0	3.4E-06	0	2.6E-07	-2.0E-05
Non-hazardous (excluding inert) waste disposed *kg/DU*	1.3E+02	5.1E-02	4.2E+00	0	0	0	0	0	0	0	0	4.0E-03	0	5.0E+01	-2.2E+01
Radioactive waste disposed *kg/DU*	7.7E-01	1.3E-03	2.0E-02	0	0	0	0	0	0	0	0	9.8E-05	0	5.4E-04	1.9E-01

OUTPUT FLOWS

Parameters	Product stage	Construction process stage		Use stage							End-of-life stage				D Reuse, recovery, recycling
	A1 / A2 / A3	A4 Transport	A5 Installation	B1 Use	B2 Maintenance	B3 Repair	B4 Replacement	B5 Refurbishment	B6 Operational energy use	B7 Operational water use	C1 Deconstruction / demolition	C2 Transport	C3 Waste processing	C4 Disposal	
Components for re-use *kg/DU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Materials for recycling *kg/DU*	0	0	1.4E+00	0	0	0	0	0	0	0	0	0	9.5E+02	0	0
Materials for energy recovery *kg/DU*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exported energy, detailed by energy carrier *MJ/FU*	0	0	1.2E+01	0	0	0	0	0	0	0	0	0	0	0	0

LCA results interpretation

		Product (A1-A3)	Transport (A4)	Installation (A5)	Use (B)	End-of-life (C)	Total Environmental impacts of the product	Recycling (D) Positive benefits of recycling	
Global warming	5.00E+03 / 0.00E+00 / -5.00E+03	2.90E+03	4.32E+01	8.00E+01	0.00E+00	5.76E+00	3020 kg CO_2equiv/DU	-1.61E+03	
Non-renewable resource consumption [1]	5.00E+04 / 0.00E+00 / -5.00E+04	3.28E+04	5.94E+02	8.59E+02	0.00E+00	8.06E+01	34300 MJ/DU	-1.52E+04	[1] This indicator corresponds to the abiotic depletion potential of fossil resources.
Energy consumption [2]	5.00E+04 / 0.00E+00 / -5.00E+04	3.67E+04	6.31E+02	9.61E+02	0.00E+00	8.73E+01	38800 MJ/DU	-1.42E+04	[2] This indicator corresponds to the total use of primary energy.
Water consumption [3]	2.00E+01 / 1.00E+01 / 0.00E+00 / -1.00E+01	1.34E+01	8.35E-02	3.56E-01	0.00E+00	6.79E-03	13.9 m^3/DU	-1.27E+00	[3] This indicator corresponds to the net use of fresh water.
Waste generated [4]	5.00E+03 / 0.00E+00 / -5.00E+03	2.90E+03	4.32E+01	8.00E+01	0.00E+00	5.76E+00	184 kg/DU	-1.61E+03	[4] This indicator corresponds to the sum of hazardous, non-hazardous and radioactive waste disposed. See page 12 for the split of waste categories.

Environmental positive contribution & comments

Comments relating to recovered material:
All scrap steel generated at Anderslöv is recycled by Ruukki with all municipal waste sent for recycling or energy recovery.

Waste at the production site is minimised by cutting the profiles to the required lengths before distribution whenever possible. This results in lower transport and installation impacts and maximises the scrap recovery rate (scrap generated at site may become contaminated by other materials and the recycling rate may not be 100 %).

References

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Continuously hot-dip coated steel flat products. Technical delivery conditions

4. EN 15804:2012 + A1:2013
Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products

5. ISO 21930:2007
Sustainability in building construction – Environmental declaration of building products

6. ISO 14040:2006
Environmental management -- Life cycle assessment -- Principles and framework

7. ISO 14044:2006
Environmental management -- Life cycle assessment -- Requirements and guidelines

8. ISO 14025:2006
Environmental labels and declarations – Type III environmental declarations – Principles and procedures

9. ISO 14001:2004
Environmental management systems – Requirements with guidance for use

10. LCA project report created by Saint-Gobain

11. Eurofer steel reuse and recycling survey, 2012. Statistics for internal light steel.