



ENVIRONMENTAL PRODUCT DECLARATION

IN ACCORDANCE WITH EN 15804+A2 & ISO 14025 / ISO 21930

Elpress AB C-Sleeves C6-10, C16-25, C25-50, C50-70, C70-95, C95-120, C150-185, C240-300, C23



EPD HUB, HUB-3111

Published on 28.03.2025, last updated on 28.03.2025, valid until 27.03.2030

Life Cycle Assessment study has been performed in accordance with the requirements of EN 15804, EPD Hub PCR version 1.1 (5 Dec 2023) and JRC characterization factors EF 3.1.



Created with One Click LCA







GENERAL INFORMATION

MANUFACTURER

Manufacturer	Elpress AB
Address	Industrivägen 15, 872 32 Kramfors
Contact details	support@elpress.se
Website	https://www.elpress.net

EPD STANDARDS, SCOPE AND VERIFICATION

Program operator	EPD Hub, hub@epdhub.com
Reference standard	EN 15804+A2:2019 and ISO 14025
PCR	EPD Hub Core PCR Version 1.1, 5 Dec 2023
Sector	Manufactured product
Category of EPD	Third party verified EPD
Parent EPD number	
Scope of the EPD	Cradle to gate with options, A4-A5, and modules C1-C4, D
EPD author	Anna Granås, Tobias Norlin, Elpress AB
EPD verification	Independent verification of this EPD and data, according to ISO 14025: □ Internal verification ☑ External verification
EPD verifier	Imane Uald Lamkaddam as an authorized verifier for EPD Hub

The manufacturer has the sole ownership, liability, and responsibility for the EPD. EPDs within the same product category but from different programs may not be comparable. EPDs of construction products may not be comparable if they do not comply with EN 15804 and if they are not compared in a building context.

PRODUCT

Product name	Elpress AB C-Sleeves
Additional labels	C6-10, C16-25, C25-50, C50-70, C70-95, C95-120, C150-185, C240-300, C23
Product reference	See product description
Place of production	Kramfors, Sweden
Period for data	Calendar year 2024
Averaging in EP	Multiple products
Variation in GWP-fossil for A1-A3	<1 %

ENVIRONMENTAL DATA SUMMARY

Declared unit	1 kg
Declared unit mass	1 kg
GWP-fossil, A1-A3 (kgCO2e)	4,61E+00
GWP-total, A1-A3 (kgCO ₂ e)	4,53E+00
Secondary material, inputs (%)	9,53
Secondary material, outputs (%)	60
Total energy use, A1-A3 (kWh)	22
Net freshwater use, A1-A3 (m ³)	0,01





PRODUCT AND MANUFACTURER

ABOUT THE MANUFACTURER

Since 1959, Elpress is a manufacturer of crimping systems, delivering premium solutions for demanding industries worldwide. With a strong commitment to quality, sustainability and reliability, we develop, manufacture, and provide complete crimping systems that ensure secure and durable electrical connections. Elpress represents knowledge, experience, development and above all, safety. Our headquarters and production is in Sweden. Our market is worldwide.

PRODUCT DESCRIPTION

Elpress C-sleeves are the optimal and innovative solution for branching and splicing of class 2 copper earth cables. With nine variants for dimensions between 6-300 mm², they ensure a reliable and durable connection for earthing and bonding. They provide safe and efficient connections and give you a reliable and durable solution.

Further information can be found at https://www.elpress.net.

PRODUCT RAW MATERIAL MAIN COMPOSITION

Raw material category	Amount, mass %	Material origin
Metals	99,9	EU
Minerals	0,1	EU
Fossil materials	-	-
Bio-based materials	-	-

BIOGENIC CARBON CONTENT

Product's biogenic carbon content at the factory gate

Biogenic carbon content in product, kg C	
Biogenic carbon content in packaging, kg C	0,024

FUNCTIONAL UNIT AND SERVICE LIFE

Declared unit	1 kg
Mass per declared unit	1 kg
Functional unit	
Reference service life	

SUBSTANCES, REACH - VERY HIGH CONCERN

The product does not contain any REACH SVHC substances in amounts greater than 0,1 % (1000 ppm).



PRODUCT LIFE-CYCLE

SYSTEM BOUNDARY

This EPD covers the life-cycle modules listed in the following table.

Pro	duct st	tage	Asse sta	mbly age	Use stage End of life stage								ge	Beyond the system boundaries					
A1	A2	A3	A4	A5	B1	B2	2 B3 B4 B5 B6 B7 C1 C2 C3 C4									D			
×	×	×	×	×	MND	MND	MND	MND	MND	MND	MND	×	×	×	×		×		
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	Deconstruction/ demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling	

Modules not declared = MND. Modules not relevant = MNR

MANUFACTURING AND PACKAGING (A1-A3)

The environmental impacts considered for the product stage cover the manufacturing of raw materials used in the production as well as packaging materials and other ancillary materials. Also, fuels used by machines, and handling of waste formed in the production processes at the manufacturing facilities are included in this stage. The study also considers the material losses occurring during the manufacturing processes as well as losses during electricity transmission.



The raw material for production is purchased as copper profile and made of recycled phosphorus de-oxidized copper with

limited residual phosphorus content. The manufacturing process of the raw material are casting, extruding, drawing/rolling.

Elpress production process for C-sleeves is mechanical processing such as cutting, pressing, shearing tumbling and tin plating, mainly as final step before packaging. Manufacturing process requires, besides raw material, electricity and energy for heating of production facilities and fuel for the internal transport from production to storage. The copper waste produced at the plant is directed to recycling as the loss of material is considered as well as wastewater treatments.

Transportation of raw materials, ancillary materials and packaging materials is assessed as road transports.

TRANSPORT AND INSTALLATION (A4-A5)

Transportation impacts occurred from final products delivery to construction site (A4) cover fuel direct exhaust emissions, environmental impacts of fuel production, as well as related infrastructure emissions.

Products are mainly delivered to Scandinavia. The distance to the customer (weighted average) is estimated as 829 km by truck.

Road transport is assumed to be carried out by EURO6 trucks with payload 16-32 tons. Transportation losses are assessed as insignificant (<1%).

The area of use for the product is earthing, to connect wires on ground or underground, which means the energy and material use at installation is likely to be low. Thus, module A5 comprises of the handling of packaging waste only, cardboard for recycling.

The c-sleeve is a complete product and is delivered ready for installation and no losses occur. Therefore, no losses are declared for the product.







PRODUCT USE AND MAINTENANCE (B1-B7)

This EPD does not cover the use phase. Air, soil, and water impacts during the use phase have not been studied.

PRODUCT END OF LIFE (C1-C4, D)

Energy consumption for demolition is assumed negligible.

An end-of-life recycling rate of 60% is assumed. The disassembled material collected for treatment is transported to the closest facility for sorting and recycling (C2-C3). The assumption for an average distance and transport method is estimated to be 250 km by EURO6 trucks with payload 16-32 tons. The remaining 40% is assumed to be landfilled (A4) using transport distance 50 km with 16-32 tons EURO6 trucks.







MANUFACTURING PROCESS



One Click Created with One Click LCA



LIFE-CYCLE ASSESSMENT

CUT-OFF CRITERIA

The study does not exclude any modules or processes which are stated mandatory in the reference standard and the applied PCR. The study does not exclude any hazardous materials or substances. The study includes all major raw material and energy consumption. All inputs and outputs of the unit processes, for which data is available for, are included in the calculation. There is no neglected unit process more than 1% of total mass or energy flows. The module specific total neglected input and output flows also do not exceed 5% of energy usage or mass.

ALLOCATION, ESTIMATES AND ASSUMPTIONS

Allocation is required if some material, energy, and waste data cannot be measured separately for the product under investigation. All allocations are done as per the reference standards and the applied PCR. In this study, allocation has been done in the following ways:

Data type	Allocation
Raw materials	No allocation
Packaging material	Allocated by mass or volume
Ancillary materials	Allocated by mass or volume
Manufacturing energy and waste	Allocated by mass or volume

AVERAGES AND VARIABILITY

Type of average	Multiple products
Averaging method	Representative product
Variation in GWP-fossil for A1-A3	<1 %

EPD calculation is based on average. The products do not differ in terms of packaging materials, consumption of process materials and energy. There are small differences in the amounts of tin and production waste. The products are all manufactured in the same production plant in Kramfors, Sweden.

LCA SOFTWARE AND BIBLIOGRAPHY

This EPD has been created using One Click LCA EPD Generator. The LCA and EPD have been prepared according to the reference standards and ISO 14040/14044. The EPD Generator uses Ecoinvent v3.10.1 and One Click LCA databases as sources of environmental data. Allocation used in Ecoinvent 3.10.1 environmental data sources follow the methodology 'allocation, Cut-off, EN 15804+A2'.







ENVIRONMENTAL IMPACT DATA

CORE ENVIRONMENTAL IMPACT INDICATORS - EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
GWP – total ¹⁾	kg CO₂e	3,75E+00	1,32E-01	6,45E-01	4,53E+00	1,67E-01	8,91E-02	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,37E+00						
GWP – fossil	kg CO₂e	3,75E+00	1,32E-01	7,27E-01	4,61E+00	1,66E-01	2,09E-03	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,28E+00						
GWP – biogenic	kg CO₂e	0,00E+00	0,00E+00	-8,70E-02	-8,70E-02	0,00E+00	8,70E-02	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-8,00E-02						
GWP – LULUC	kg CO₂e	1,72E-05	4,76E-05	4,26E-03	4,33E-03	5,98E-05	1,15E-06	MND	0,00E+00	1,16E-05	1,92E-05	1,43E-06	-4,79E-03						
Ozone depletion pot.	kg CFC-11e	9,59E-10	2,61E-09	1,24E-08	1,60E-08	3,31E-09	2,11E-11	MND	0,00E+00	6,42E-10	1,75E-10	7,23E-11	-3,01E-08						
Acidification potential	mol H⁺e	2,58E-02	2,78E-04	3,33E-03	2,94E-02	3,46E-04	8,42E-06	MND	0,00E+00	6,71E-05	1,74E-04	1,77E-05	-9,78E-02						
EP-freshwater ²⁾	kg Pe	2,41E+01	9,04E-06	5,63E-04	2,41E+01	1,12E-05	4,65E-07	MND	0,00E+00	2,17E-06	8,83E-06	2,05E-07	-7,10E-02						
EP-marine	kg Ne	6,87E-03	6,73E-05	7,48E-04	7,69E-03	8,32E-05	1,36E-05	MND	0,00E+00	1,61E-05	3,88E-05	6,75E-06	-2,84E-02						
EP-terrestrial	mol Ne	7,54E-02	7,26E-04	5,60E-03	8,18E-02	8,98E-04	2,66E-05	MND	0,00E+00	1,74E-04	4,37E-04	7,37E-05	-4,18E-01						
POCP ("smog") ³)	kg NMVOCe	2,17E-02	4,59E-04	1,98E-03	2,41E-02	5,76E-04	1,02E-05	MND	0,00E+00	1,12E-04	1,29E-04	2,64E-05	-8,09E-02						
ADP-minerals & metals ⁴)	kg Sbe	1,61E-03	4,57E-07	2,01E-06	1,61E-03	5,54E-07	1,35E-08	MND	0,00E+00	1,07E-07	9,61E-07	3,97E-09	-1,30E-03						
ADP-fossil resources	MJ	4,47E+01	1,85E+00	1,61E+01	6,26E+01	2,34E+00	1,90E-02	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,75E+01						
Water use ⁵⁾	m³e depr.	7,73E-03	9,30E-03	3,95E-01	4,12E-01	1,16E-02	5,21E-04	MND	0,00E+00	2,26E-03	3,05E-03	1,77E-04	-1,30E+00						

1) GWP = Global Warming Potential; 2) EP = Eutrophication potential. Required characterisation method and data are in kg P-eq. Multiply by 3,07 to get PO4e; 3) POCP = Photochemical ozone formation; 4) ADP = Abiotic depletion potential; 5) EN 15804+A2 disclaimer for Abiotic depletion and Water use and optional indicators except Particulate matter and Ionizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.





ADDITIONAL (OPTIONAL) ENVIRONMENTAL IMPACT INDICATORS – EN 15804+A2, PEF

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
Particulate matter	Incidence	1,07E-07	9,64E-09	1,42E-08	1,31E-07	1,23E-08	1,13E-10	MND	0,00E+00	2,38E-09	2,43E-09	4,03E-10	-7,95E-07						
Ionizing radiation ⁶⁾	kBq LI235e	2,02E-03	2,40E-03	3,93E-01	3,98E-01	3,02E-03	1,25E-04	MND	0,00E+00	5,85E-04	6,91E-04	3,85E-05	-2,33E-01						
Ecotoxicity (freshwater)	CTUe	1,95E-01	2,52E-01	2,23E+00	2,68E+00	3,12E-01	6,79E-02	MND	0,00E+00	6,04E-02	1,12E-01	5,14E-03	-8,49E+02						
Human toxicity, cancer	CTUh	1,52E-07	2,30E-11	1,50E-10	1,52E-07	2,79E-11	1,51E-12	MND	0,00E+00	5,41E-12	1,31E-11	4,60E-13	-1,84E-09						
Human tox. non-cancer	CTUh	1,52E-07	1,18E-09	6,39E-09	1,60E-07	1,48E-09	8,03E-11	MND	0,00E+00	2,87E-10	8,34E-10	1,06E-11	-1,04E-07						
SQP ⁷⁾	-	1,35E-01	1,11E+00	4,77E+00	6,02E+00	1,42E+00	1,41E-02	MND	0,00E+00	2,74E-01	3,64E-01	1,21E-01	-8,04E+01						

6) EN 15804+A2 disclaimer for Ionizing radiation, human health. 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; 7) SQP = Land use related impacts/soil quality.

USE OF NATURAL RESOURCES

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	В3	B4	B5	B6	B7	C1	C2	С3	C4	D
Renew. PER as energy ⁸⁾	MJ	3,66E+00	3,27E-02	5,61E+00	9,30E+00	4,10E-02	-9,18E-01	MND	0,00E+00	7,95E-03	2,99E-02	5,92E-04	-1,97E+01						
Renew. PER as material	MJ	0,00E+00	0,00E+00	7,43E-01	7,43E-01	0,00E+00	-7,43E-01	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	6,57E-01						
Total use of renew. PER	MJ	3,66E+00	3,27E-02	6,35E+00	1,00E+01	4,10E-02	-1,66E+00	MND	0,00E+00	7,95E-03	2,99E-02	5,92E-04	-1,90E+01						
Non-re. PER as energy	MJ	5,23E+01	1,85E+00	1,56E+01	6,98E+01	2,34E+00	1,90E-02	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,76E+01						
Non-re. PER as material	MJ	0,00E+00	0,00E+00	2,43E-03	2,43E-03	0,00E+00	-2,43E-03	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,59E-02						
Total use of non-re. PER	MJ	5,23E+01	1,85E+00	1,56E+01	6,98E+01	2,34E+00	1,66E-02	MND	0,00E+00	4,54E-01	1,92E-01	6,13E-02	-3,75E+01						
Secondary materials	kg	9,53E-02	8,77E-04	5,90E-02	1,55E-01	1,09E-03	3,14E-05	MND	0,00E+00	2,11E-04	2,23E-04	1,54E-05	4,24E-01						
Renew. secondary fuels	MJ	1,55E-03	1,09E-05	5,40E-03	6,97E-03	1,38E-05	1,77E-07	MND	0,00E+00	2,67E-06	1,01E-05	3,19E-07	-2,02E-03						
Non-ren. secondary fuels	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
Use of net fresh water	m ³	2,54E-04	2,55E-04	1,31E-02	1,37E-02	3,19E-04	-1,07E-05	MND	0,00E+00	6,18E-05	8,41E-05	6,37E-05	-5,51E-02						

8) PER = Primary energy resources.





END OF LIFE – WASTE

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
Hazardous waste	kg	7,32E-01	2,77E-03	3,60E-02	7,71E-01	3,40E-03	3,21E-04	MND	0,00E+00	6,60E-04	1,50E-03	6,77E-05	-6,95E-01						
Non-hazardous waste	kg	1,46E-01	5,78E-02	7,06E+00	7,26E+00	7,18E-02	3,64E-02	MND	0,00E+00	1,39E-02	4,22E-02	1,55E-03	8,48E-01						
Radioactive waste	kg	1,40E-04	5,95E-07	1,09E-04	2,49E-04	7,51E-07	3,18E-08	MND	0,00E+00	1,45E-07	1,70E-07	9,39E-09	-5,73E-05						

END OF LIFE – OUTPUT FLOWS

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	СЗ	C4	D
Components for re-use	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	1,77E-01	1,77E-01	0,00E+00	4,80E-02	MND	0,00E+00	0,00E+00	6,00E-01	0,00E+00	0,00E+00						
Materials for energy rec	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	MND	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	2,23E-02	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
Exported energy – Electricity	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,30E-03	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						
Exported energy – Heat	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,30E-02	MND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00						

ENVIRONMENTAL IMPACTS – EN 15804+A1, CML / ISO 21930

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
Global Warming Pot.	kg CO₂e	3,74E+00	1,31E-01	7,32E-01	4,61E+00	1,65E-01	7,91E-03	MND	0,00E+00	3,21E-02	1,63E-02	2,47E-03	-3,27E+00						
Ozone depletion Pot.	kg CFC-11e	9,25E-10	2,08E-09	1,24E-08	1,54E-08	2,64E-09	1,72E-11	MND	0,00E+00	5,11E-10	1,45E-10	5,74E-11	-2,54E-08						
Acidification	kg SO₂e	2,87E-02	2,23E-04	3,31E-03	3,22E-02	2,78E-04	6,43E-06	MND	0,00E+00	5,39E-05	1,40E-04	1,31E-05	-6,60E-02						
Eutrophication	kg PO₄³e	2,61E-03	5,67E-05	7,95E-04	3,46E-03	7,03E-05	9,64E-06	MND	0,00E+00	1,36E-05	2,00E-05	4,16E-06	-2,39E-02						
POCP ("smog")	kg C₂H₄e	5,84E-04	2,35E-05	1,88E-04	7,95E-04	2,94E-05	1,90E-06	MND	0,00E+00	5,71E-06	8,30E-06	1,24E-06	-3,15E-03						
ADP-elements	kg Sbe	1,61E-03	4,47E-07	2,00E-06	1,61E-03	5,42E-07	1,32E-08	MND	0,00E+00	1,05E-07	9,58E-07	3,89E-09	-1,30E-03						
ADP-fossil	MJ	4,56E+01	1,81E+00	9,12E+00	5,65E+01	2,29E+00	1,69E-02	MND	0,00E+00	4,44E-01	1,82E-01	6,07E-02	-3,38E+01						







ENVIRONMENTAL IMPACTS - GWP-GHG - THE INTERNATIONAL EPD SYSTEM

Impact category	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	С3	C4	D
GWP-GHG ⁹⁾	kg CO₂e	3,75E+00	1,32E-01	7,32E-01	4,62E+00	1,67E-01	2,09E-03	MND	0,00E+00	3,23E-02	1,63E-02	2,50E-03	-3,29E+00						

9) This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5 (IPCC 2013). In addition, the characterisation factors for the flows -CH4 fossil, CH4 biogenic and Dinitrogen monoxide - were updated in line with the guidance of IES PCR 1.2.5 Annex 1. This indicator is identical to the GWP-total of EN 15804:2012+A2:2019 except that the characterization factor for biogenic CO2 is set to zero.







VERIFICATION STATEMENT

VERIFICATION PROCESS FOR THIS EPD

This EPD has been verified in accordance with ISO 14025 by an independent, third-party verifier by reviewing results, documents and compliancy with reference standard, ISO 14025 and ISO 14040/14044, following the process and checklists of the program operator for:

- This Environmental Product Declaration
- The Life-Cycle Assessment used in this EPD
- The digital background data for this EPD

Why does verification transparency matter? Read more online

This EPD has been generated by One Click LCA EPD generator, which has been verified and approved by the EPD Hub.

THIRD-PARTY VERIFICATION STATEMENT

I hereby confirm that, following detailed examination, I have not established any relevant deviations by the studied Environmental Product Declaration (EPD), its LCA and project report, in terms of the data collected and used in the LCA calculations, the way the LCA-based calculations have been carried out, the presentation of environmental data in the EPD, and other additional environmental information, as present with respect to the procedural and methodological requirements in ISO 14025:2010 and reference standard.

I confirm that the company-specific data has been examined as regards plausibility and consistency; the declaration owner is responsible for its factual integrity and legal compliance.

I confirm that I have sufficient knowledge and experience of construction products, this specific product category, the construction industry, relevant standards, and the geographical area of the EPD to carry out this verification.

I confirm my independence in my role as verifier; I have not been involved in the execution of the LCA or in the development of the declaration and have no conflicts of interest regarding this verification.

Imane Uald Lamkaddam as an authorized verifier for EPD Hub Limited 28.03.2025



