



How to read an EPD

An EPD (Environmental Product Declaration) is a document, validated by a third party, that transparently shows the environmental impact of a product or material over its lifetime. The EPD is a representation and analysis of an LCA (Life Cycle Assessment) of the product, which evaluates its environmental performance over its entire life cycle. The EPD framework complies with European and international standards such as EN 15804, ISO14025 and ISO14040 - which makes two EPDs comparable¹. This makes it possible for you to choose the product with the lowest emissions based on the information from the EPD.

What does an EPD cover?

An EPD contains five overall types of information which may be presented in different ways, but will always be present.

1. General information
2. Product information
3. Information about the LCA methodology
4. Results of the LCA
5. Analysis/Interpretation of the LCA results

EPD Guide

Here's a guide to quickly getting the insights you want without having to read all the information in detail.

The product description is typically to be found on the frontpage of the EPD. However, it is always to be found on the page "General information" (typically page 2).

You need to look for five specific points to make sure you can compare different EPDs:

1. Declared product and declared unit
2. Period of validity
3. EPD type
4. EPD scope
5. Verification stamp

In this way, you ensure that the EPD is up to date and that you look at the intended product and understand the characteristics to be compared, i.e. type, volume and unit.

1. LCA methodology

The LCA methodology typically mentions the system boundaries, which indicate the stages of the LCA that are included in the analysis used for the EPD. It is also here that the scrap content of the production is specified, and typically also here that the furnace process is described.

The scrap content is typically presented in a table, where the heading indicates either "scenario" or "technical information".

You are interested in "recycled content of product" or "Scrap input":

Name	Value	Unit
Recycling rate of product	93	%
→ Recycling content of product	82.2	%

Name	Value	Unit
End-of-life recycling rate	93	%
→ Stainless steel scrap input (into modul A)	61.7	%
Net stainless steel scrap credit	27.4	%
Equiv. mass of stainless steel scrap credited per ton product	284.3	kg

The boundaries of the LCA are typically presented in the following way:

	Produkt stage			Costruction process stage		Use stage							End of life stage				Benefits and loads beyond the system boundary
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	Raw material supply	Transport	Manufacturing	Transport from gate to site	Assembly / install	Use	Maintenance	Repair	Replacement	Refurbishment	Building Operational Energy Use During product use	Building Operational Water Use During product use	Deconstruction	Transport	Waste processing	Disposal	Reuse, Recovery, Recycling potential
Declared modules	X	X	X	MND	MND	MND	MND	MND	MND	MND	MND	MND	X	X	X	X	X

When comparing two EPDs, it is important to ensure that you are comparing identical stages.

The stages included in the LCA are typically represented by an "X". Those not included are indicated by "MND / Modules not declared". From ISO15804+A2 it is now mandatory to also report C1-C4 and D. The optional parameters will still typically be displayed with "MND".

2. LCA Results

This section shows the emission factors for each of the steps shown in the diagram above. Please note that there may be several product variants in the EPD. Choose the one that is of interest to you.

You want to know the product's CO₂ emissions to compare products from different vendors. To do this, look for "GWP", which is short for "Global Warming Potential". It is an overall category that allows you to compare different greenhouse gases and is therefore measured in CO₂e (CO₂ equivalents):

Impact category	A1	A2	A3	C1	C2	C3	C4	D
→ GWP 100 kg [kg CO ₂ eq]	1.24E+03	4.73E+01	7.37E+02	3.62E+00	1.35E+01	3.17E+01	2.57E-01	-8.89E+02
ODP [kg CFC-11 eq]	6.16E-05	7.27E-06	1.38E-04	6.28E-07	2.55E-06	1.42E-06	8.61E-08	-6.38E-05
AP [kg SO ₂ eq]	1.93E+01	5.51E-01	1.90E+00	2.73E-02	4.44E-02	1.36E-01	1.89E-03	-3.82E+00
EP [kg (PO ₄) ⁻³ eq]	7.36E-01	7.33E-02	3.50E-01	5.98E-03	7.28E-03	1.55E-02	3.33E-04	-5.09E-01
POCP [kg ethane eq]	1.23E+00	4.73E-02	2.53E-01	4.30E-03	8.37E-03	8.89E-03	2.98E-04	-1.34E+00
ADP _{elements} [kg Sb-eq]	4.61E-02	3.04E-04	6.15E-03	5.67E-06	2.33E-04	5.63E-05	2.41E-06	-2.52E-03
ADP _{fossil fuels} [MJ, LHV]	1.42E+04	6.22E+02	8.24E+03	5.01E+01	2.08E+02	3.47E+02	7.28E+00	-1.11E+04

Because of the many decimals places in the various emissions, the figures are always given in scientific notation. To decipher the figures, you have to take the nth power of ten:

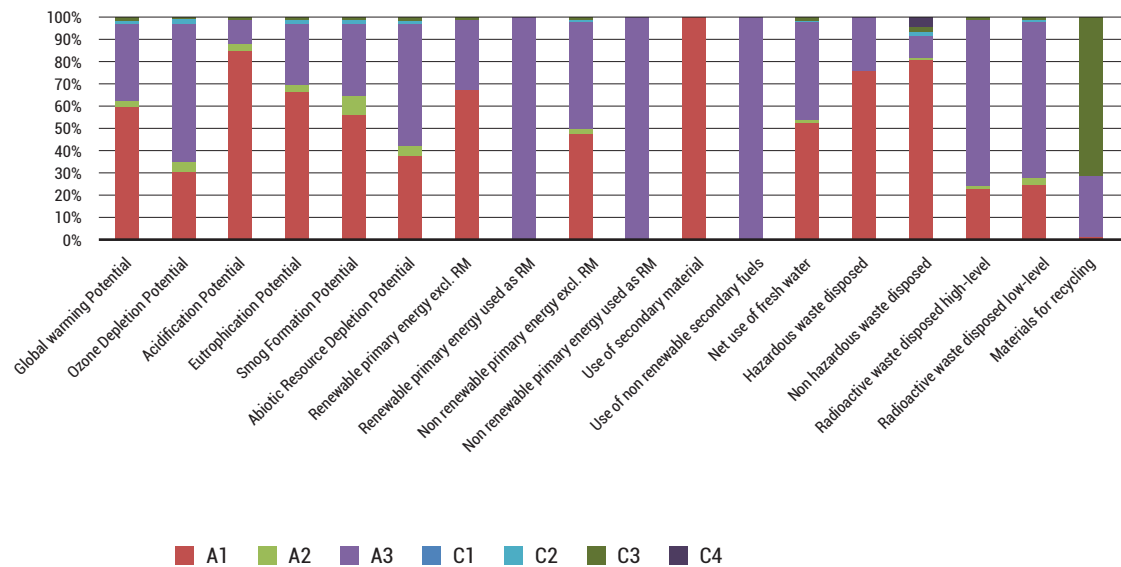
E+01 = *10¹ = *10
 E+02 = *10² = *100
 E+03 = *10³ = *1000
 E-03 = *10⁻³ = /1000

The basic understanding is as follows: if there is a "+" after the "E", move the comma to the right, and if there is a "-" after the "E", move the comma to the left. The number after the leading character **highlights** how many times.

As an example, column A3 of the GWP would result in this:
 737E+02 = 73700

3. LCA Analysis / Interpretations

This part typically shows a more visually pleasing explanation of the figures and describes the processes in more detail.



Summary

The CSRD will enter into force in the financial year 2024, which means that all stock exchange listed companies in Europe will have to include EPDs in their annual accounts. In the following years, the same requirement will apply to larger companies, and eventually also the medium and small-sized companies.

This guide allows you to read the EPD document quickly and correctly, so you can easily find the data that is relevant to you.

If you have any questions about the guide, please do not hesitate to [contact us](#).