DANTES

Demonstrate and Assess Tools for Environmental Sustainability

EPD – Key to interpretation

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EPD® – key to interpretation

EPD stands for Environmental Product Declaration and presents quantified environmental data for a product based on information from a life cycle assessment (LCA) according to the ISO-standards for LCA. EPD is voluntarily developed information and the purpose of an EPD is to provide easy accessible, quality-assured and comparable information regarding environmental performance of products.

There are two documents, which control how the calculations and data collection behind an EPD should be done and what information the EPD must contain; Requirements for the EPD system (MSR) and Product specific requirements (PSR). The MSR contains general requirements for all EPDs and a PSR contains more detailed requirements for each product group.

This key to interpretation includes EPDs within the framework of the Swedish EPD system. This system is the most internationally recognized of its kind. The purpose of this key to interpretation is to make it easier for people who will read and try to understand an EPD. The target group is all users of EPDs. Those who wish to have a more detailed description of the EPD system can find this on www.environdec.com, which is the international EPD web site administrated by the Swedish Environmental Management Council. Certified EPDs can be found and downloaded from this web site.

An EPD must be certified by a third party and the declaration is valid for three years. If important process changes are made during the period of validity, updates are needed.

Different types of environmental labels and declarations

Type I
- Labels
- Pass-or-fail criteria
- Examples:

Type II
- Any written or spoken environmental statement
- No third party verification
- No pass-or-fail criteria

Type III
- LCA based
- Third party verification
- No pass-or-fail criteria
- Registered trademark:

EPD®

The main parts of an EPD
An EPD has three main parts:

Description of the product and the company
The first part of the EPD is very straight forward with descriptions of the product and the manufacturer. The functional unit, which is the unit to which all calculations are referred, can be stated here or in the second part. The functional unit reflects the actual function of the product.

Environmental performance
This part is the core of an EPD. It is based on a life cycle assessment of the product, which means that all processes from extraction of resources, refining of raw materials, transport and final production are included. In most EPDs, important air and water emissions are expressed both as inventory data and as potential influence on different environmental impact categories, for example global warming (GWP). In this case, all emissions contributing to global warming are included in the impact category GWP. Resource consumption is divided into non renewable and renewable resources. All results of calculations are presented per functional unit, which for e.g. chemicals is 1000 kg of the product.

EPDs could also include a presentation of environmental impact from a typical transport to customer.

Information from the company and the accredited certification body

Name and address to the company's contact person and to the certification body, period of validity of the certification and references are given in this part.

What are the advantages of EPDs?

- Fulfill the need for open and quantitative environmental information for a variety of target groups and markets
- Supported by international consensus regarding environmental declarations (ISO 14025)
- Meet demands for objectivity, comparability and credibility
- Are "living" documents which are valid for three years
- Information material and descriptions of the EPD system are together with certified EPDs available on www.environdec.com

Environmental impacts from other activities

It can be difficult to interpret all different values of emissions and environmental impact given in an EPD and this is an attempt to give a better understanding and feeling for if a figure is considerable or negligible. The environmental impact and emissions given below are rough estimations and shall only be regarded as typical values for these kinds of activities. Emissions given as inventory data are included in most EPDs but not in all.

Emissions / Resources	**Unit**			
		1000 kg sodium chloride[1]	500 km car journey[2]	Heating (oil) of a medium-sized private house, one month[3]
CO_2	g	175000	123 000	592000
NOx	g	1500	30	400
CO	g	90	280	120
SO_2	g	1100	-	400
Non renewable resources with energy content	MJ	3000	1460	8000

Category of impact	**Equivalent unit**			
		1000 kg sodium chloride[1]	500 km car journey[2]	Heating (oil) of a medium-sized private house, one month[3]
Global warming (GWP)	g CO_2	175000	123000	592000
Acidification (AP)	Mole H^+	60	0,65	20
Ozone depletion (ODP)	g CFC-11	0,02	-	-
Photochemical ozone creation (POCP)	g ethene	0,7	25	10
Eutrophication (EP)	g O_2	9000	180	2400

1) European average production of sodium chloride
2) Station wagon, gasoline fueled
3) Swedish Energy Agency and Vattenfall