



Environmental Product Declaration

SUSTAINABILITY ADVISORY NOTE

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Environmental Product Declaration

What is an Environmental Product declaration?

An Environmental Product Declaration (EPD) is an independently verified and registered document that communicates clear and comparable information about the life-cycle environmental impact of products. Construction products are assessed using a single set of Product Category Rules (PCR) ensuring consistent [reporting](#) for similar products. EPDs are thus an important tool for assessing building sustainability.

The foundation of any EPD is a lifecycle assessment (LCA). An LCA allows you to evaluate your product's environmental performance over its entire life-cycle. It typically takes into consideration your full value chain, from material extraction through to manufactured product, its usage stage and end of life. It should be noted that EPDs were up until recently only cradle-to-gate, so older EPDs may not provide the end-of-life information that is required.

Why do I need an Environmental Product Declaration?

The UK Government has committed to reducing UK Carbon emissions to net zero by 2050 through a legally binding amendment to the Climate Change Act.

Meeting this goal requires industry to rapidly address the embodied carbon associated with the extraction, manufacture, transport, use and end of life of construction products (which accounted for 33.6 million tonnes of CO₂ in 2010). EPDs support carbon emission reduction by making it possible to compare the impacts of different materials and products in order to select the most sustainable option.

- Architects, engineers and designers are able to choose the most sustainable option for their project.
- Manufacturers are able to optimise the impact of their products and market their carbon transparency.

It is envisaged by 2022 that EPD will become mandatory as will mandatory assessment and reporting of whole life carbon for public buildings and the incentivisation of assessment and reporting of whole life carbon for private buildings.

Governing standards

Life cycle assessments should be carried out to [ISO 14040](#) and [ISO 14044](#) (the International Standards for Life Cycle Assessment).

An EPD is a so-called type III environmental declaration that is compliant with [ISO 14025:2006](#) which sets out the overarching procedures and requirements for producing EPD for all product types.

[EN 15804:2012+A2:2019](#) sets out the fundamental product category rules to ensure that all EPDs in the UK and Europe for construction products, building activities, and construction processes are derived, depicted, and verified in a uniform manner. Other countries will have their own PCR standards.

LCA + PCR = EPD

EPD Programmes

A type III environmental declaration is created and registered in the framework of an EPD programme. An EPD Programme is a database of verified EPDs managed and updated by an independent Programme Operator. It is possible for an EPD to be listed in more than one EPD programme where the programmes follow the same rules.

What's included in an EPD?

In physical terms, an EPD consists of two key documents:

- EPD background project report, a systematic and comprehensive summary of the LCA project to support the third-party verifier when verifying the EPD. This does not have to be made public.
- Public EPD document that provides the results.

As a voluntary declaration of the life-cycle environmental impact, having an EPD for a product does however not imply that the declared product is environmentally superior to alternatives, but it should allow an objective comparison.

How to create an EPD

Developing and publishing an EPD consists of the following steps:

- Step 1 – Collect data: including raw material, resource consumption and waste data for your product. Your choice of programme operator (see below) and PCR will determine the specific data you will need to collect, based on which stages of your product life-cycle and which impact categories your LCA will need to assess.
- Step 2 – Conduct a life-cycle assessment: the LCA will need to conform to the PCR.
- Step 3 – Prepare background report for EPD: the background report (LCA report) is a vital accompaniment to your public EPD. It provides further details about the LCA methodology, assumptions and approach employed to support third party verification, as well as the standards that you have adhered to.
- Step 4 – 3rd party verification: every EPD needs to be verified by an independent third-party verifier before it can be published. This ensures accuracy, reliability and ensures that the EPD conforms to the requirements of the relevant PCR.
- Step 5 – Publication: Once your EPD has been verified by an independent third party, it is ready to be put into the public domain via publication. To do this, you need to submit the EPD document for publication to the program operator, who will process, register and publish your EPD

An EPD is usually valid for five years.

EPD Programmes:

[International EPD® System](#) is owned and operated by EPD International AB.

[BRE EPD Verification Scheme](#) operates in line with EN 15804.

[IBU EPD](#) is owned by IBU (The Institut Bauen und Umwelt e. V.) an association of building product manufacturers who have joined forces to operate an international environmental product declaration programme

EPD consultancy organisations

- [Anthesis](#)
- [Close the Loop](#)
- [Environmental Resources Management \(ERM\)](#)
- [EuGeos Ltd](#)
- [Fishwick Environmental](#)
- [Intertek Group PLC](#)
- [Mark Dowling](#)
- [Metsims Sustainability Consulting](#)
- [Minviro](#)
- [Ramboll](#)
- [RDC Environment](#)
- [Renuables](#)
- [Ricardo Energy and Environment](#)
- [Sphera](#)
- [Sweco](#)
- [WSP](#)

Online tools:

[BRE LINA](#) is an online life cycle assessment (LCA) tool that gives product manufacturers access to LCA data and a route to EPD

[IBU EPD Online Tool](#) leads to the IBU's EPD database system, in which your own EPDs can be created, edited and submitted for verification and publication.

[One Click LCA Pre-verified EPD Generator](#) approved for registration and publication of EPDs in The International EPD System

Further information:

[ECO Platform](#) is an association of European product EPD Programmes that sets standards for verification and mutual recognition between programmes.

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