

FAQs

Environmental Product Declarations for WPC decking boards and facade elements

What is an EPD?

An EPD (Environmental Product Declaration) is a multi-page document outlining the environmental impacts of construction products on the basis of a Life Cycle Assessment featuring quantitative data. It is drawn up by the manufacturer and audited by an independent verifier at IBU (Institut Bauen und Umwelt e.V.) in accordance with the ISO 14025 and EN 15804 standards, followed by publication. Environmental Product Declarations serve as support for the information required on construction products used for sustainability and/or environmental analysis at building level. They include information on the entire life cycle starting with manufacture, documentation on the base materials used for the product, their processing and disposal options as well detailed results of the product life cycle assessments.

What are the benefits of an EPD?

An EPD supplies credible and comparable information on the environmental performance of products, enabling various product groups to be compared with each other. For example, the Süddeutsches Kunststoffzentrum (SKZ) compared the environmental performance of WPC decking boards and decking boards made of Bilinga tropical wood and established that WPC products have a significantly better LCA than Bilinga as of a service life of 15 years. The average service life for WPC decking boards and facade elements is 30 years. In the environmental criteria reviewed, WPC profiles rated better than Bilinga in the categories of ozone depletion potential, acidification potential and energy consumption.

What positive environmental impacts does WPC have?

In comparison with similar products manufactured entirely from wood or plastic, WPC displays various advantages. Compared to wood, the advantages primarily concern less maintenance and a longer service life. Unlike products made entirely of plastic, the percentage of non-renewable depletion of resources can be reduced for WPC while it displays similar properties. Furthermore, other environmental impacts are also reduced when wood is used in plastic products.

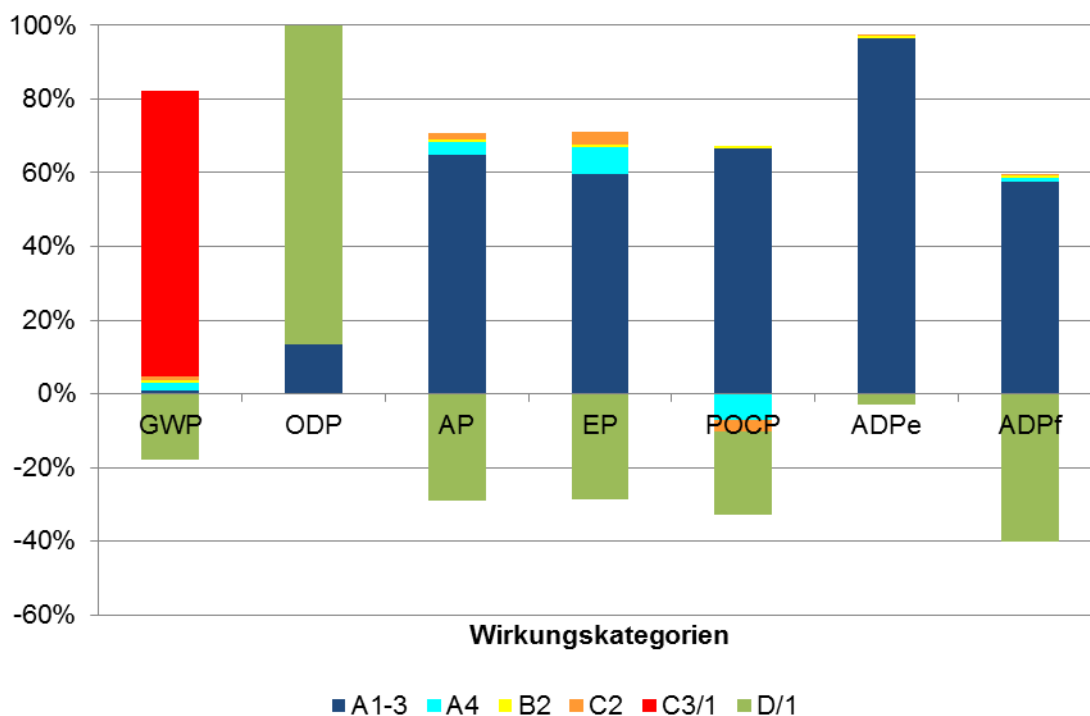


Fig. 1: Estimated impact of decking boards (energy recovery)

Legend:

A 1-3: Manufacture
 A 4: Transport to user
 B 2: Maintenance
 C 2: Disposal
 C 3/1: Waste processing
 D/1: Recycling potential

GWP: Global Warming Potential
 ODP: Ozone Depletion Potential
 AP: Acidification Potential
 EP: Eutrication Potential
 POCP: Photochemical Ozone Creation Potential
 ADPe: Abiotic Depletion Potential of elementary resources
 ADPf: Abiotic Depletion Potential of fossil fuels

Who is the EPD aligned towards?

With its statements on environmental performance, the EPD is directed towards many different addresses: planners, architects, construction companies, real estate companies, facility managers and of course companies involved in manufacturing and service along the value-added chain from raw materials through to the actual building.

Where is the EPD required?

EPDs play a key role within the framework of sustainable building certification, whereby EPDs help to make the environmental impacts of a building measurable and comparable. The positive environmental impact of a building has an influence on the price, resale value and return on investment of a property. For example: certified green buildings accounted for a share of 5.3 billion EUR among individual commercial properties in 2014 (total volume of 27.9 billion EUR).

What are the most important sustainability certification systems?

EPDs use the following certification systems for building certification:

- BNB: Bewertungssystem Nachhaltiges Bauen (sustainable building assessment system)
- DGNB: Deutsche Gesellschaft für Nachhaltiges Bauen
- BREEAM: Building Research Establishment Environmental Assessment Method
- LEED: Leadership in Energy and Environmental Design

You can use the following for your marketing documents:

Logos:



Fig. 1: Logo with reference to standard



Fig. 2: Logo without reference to standard

Important: The logo may only be used in combination with the following formulation:

“Together with VHI, we are committed to sustainable building via EPDs for WPC decking boards and WPC facade elements at IBU.”

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