

ACCIDENTAL GREENWASHING IN EPDS

MISUSE OF MODULE D: WHAT TO WATCH OUT FOR

If you work in the building industry, you're likely familiar with Environmental Product Declarations (EPDs). They help building professionals make informed decisions about materials and products by measuring the total environmental impact of their projects.

EPDs are a valuable part of the decision-making process for tracking emissions, but if misused, they can contribute to accidental greenwashing.

The issue? Incorrect use of the modules found within an EPD, specifically, the use of Module D to calculate a building's overall environmental footprint. Governing standards, such as EN15804+A2, strictly prohibit the summation of data in modules A–D.

Unfortunately, some users improperly include Module D data when evaluating the environmental impact of materials. If you're using Module D to assess how the products in your project impact the building's entire footprint, misinterpreting this data – even unintentionally – could undermine your genuine sustainability efforts and lead to incorrect claims.

Want to avoid this risk? Understanding Module D and applying it responsibly is key.



“Inappropriate use of Module D can lead to double counting across the life cycles of different products and may fail to adequately recognize or incentivize the use of recycled content.”

***- “What’s the story with Module D?”
by Jane Anderson, PhD***

FIRST, WHAT IS MODULE D?

Let's break it down. It all starts when a company conducts a Life Cycle Assessment (LCA), which shows the environmental impact of a product's entire life cycle through various life stages via modules. Then, the company publishes an EPD summarizing the LCA findings. So, where does Module D fit into all this?

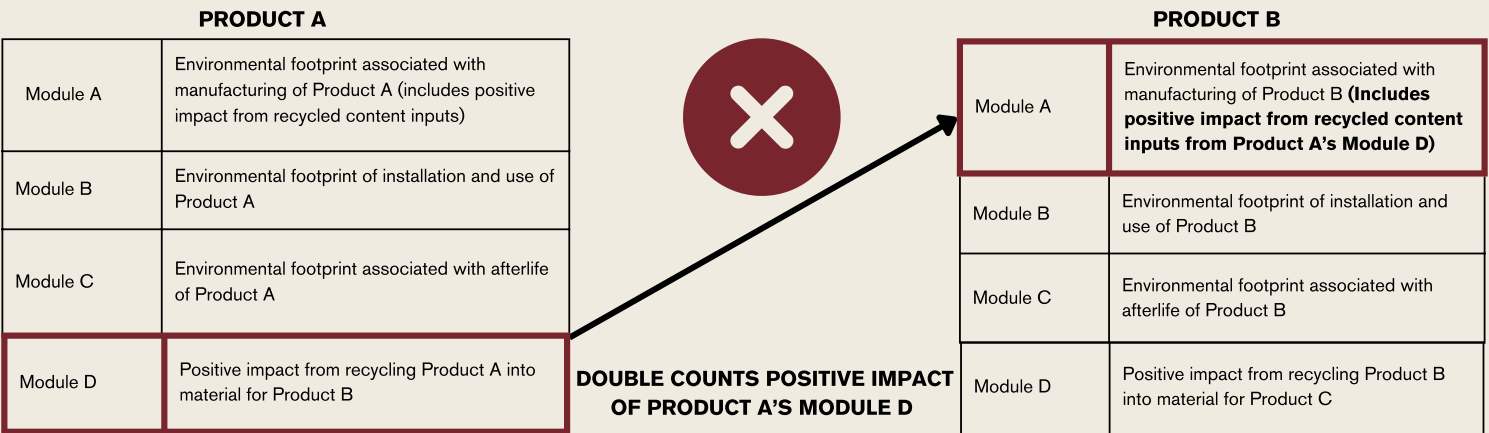
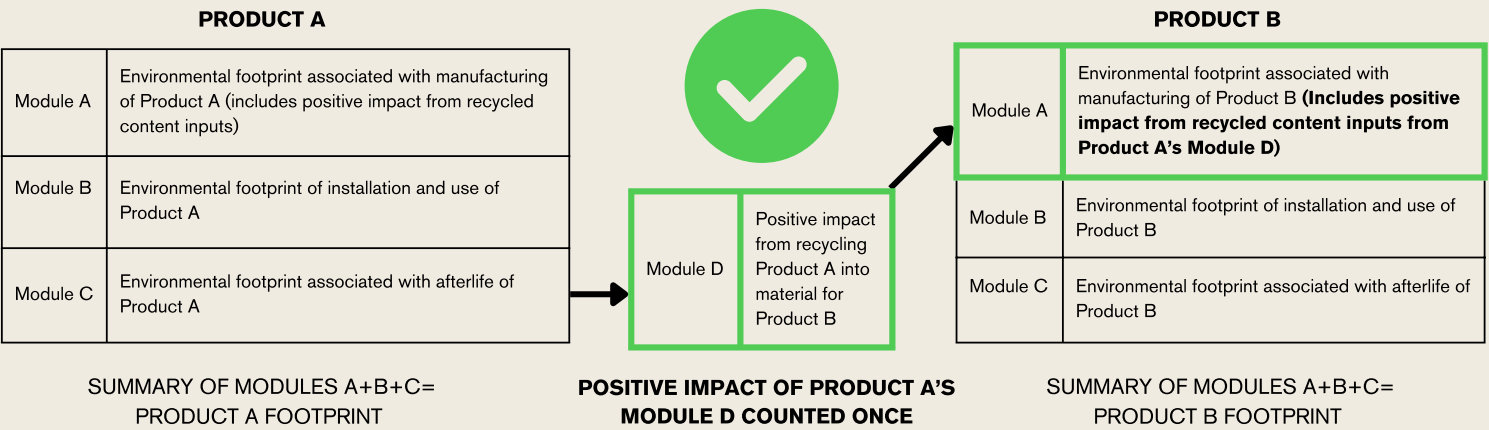
Here's a snapshot:

- For example, for a product's carbon footprint we measure its cradle-to-gate impact, which includes the manufacturing stage (from production to factory departure) or Modules A1–A3 within an EPD, and Modules A4–A5 for transportation and installation impact.
- Other modules cover the remaining phases of a product's life cycle – Module B on use and Module C with end-of-life impacts like reuse, recycling, or disposal. This means that Modules A–C represent the entire life cycle of a product.

- There's also an optional category, called Module D, which assesses a product's impact "afterlife." This afterlife provides benefits to other products, which are not the subject of the EPD. For example, the benefits from recovered energy or recycling waste and scrap in Module D aren't realized in the current product. Instead, they would apply to Module A of the future product resulting from the first product's afterlife. Here's where it gets tricky.

Module D extends beyond Module A–C's standard life cycle stages. Instead, it estimates a product's potential benefits based on future reuse, energy production, and recycling practices. If you calculate a product's total environmental impact using A–D rather than just A–C, you may unintentionally overstate these. (See the example visuals below.)

CORRECT SUMMATION OF MODULES VS. INCORRECT SUMMATION OF MODULES





ENSURE ACCURACY OF VENDOR DATA

At Interface, we align with LCA best practices and Science Based Target initiative (SBTi) standards for carbon reduction.

To be sure we're using the most accurate data available, we prioritize Module A as our main footprint reduction driver, and we avoid combining data in Modules A–D, which LCA governing bodies prohibit.

Module A is more accurate than other modules because it considers a product's cradle-to-gate environmental impact in real time. Based on actual outcomes. Modules B–D represent projected scenarios of potential impacts.

Unfortunately, many providers don't follow these best practices.

Instead, some building vendors (including other modular flooring companies) declare lower circular carbon footprints in some of their products by combining Modules A–D. This data uses potential future benefits that shouldn't apply to that product. It's misleading and goes against best practices. If you're unintentionally relying on inaccurate data from these manufacturing companies, it could negatively impact your sustainability goals.

“Additionally, Module D can be a potential trap for greenwashing. It is relatively easy to claim that a significant portion of a given product is recycled when, in reality, it may end up in landfills.”

***- “Module D in Environmental Product Declarations (EPDs)” by
Andreas Ciroth, PhD, and
Ashrakat Hamed***

REPORT MODULE D RESPONSIBLY TO AVOID OVERSTATING GREEN CLAIMS

Dr. Jane Anderson – an experienced consultant and researcher from ConstructionLCA –explores this topic in depth in her recent article, “What is the story with Module D?”* Below are Dr. Anderson’s top four things you should consider in your EPD approach.

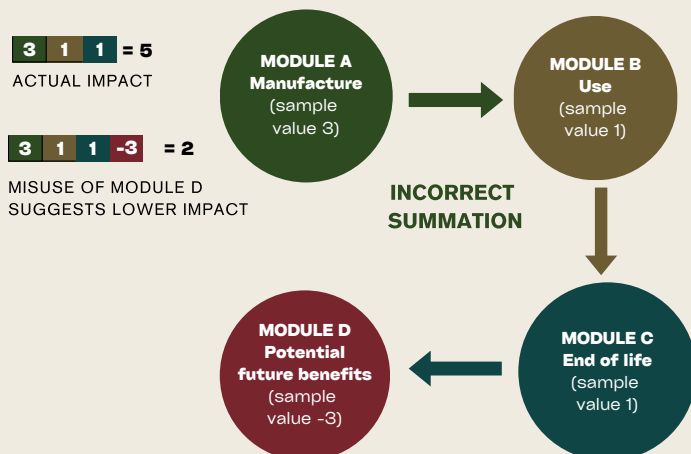
- **Is it inconsistent with other modules?** Module D should never be combined with Modules A–C because Module D is not part of the subject product’s life cycle. They use different methodologies which makes them incompatible. And would make no distinction between the impact of new materials or recycled materials, ignoring the benefits of, for instance, a circular economy.
- **Does it overestimate future benefits?** Module D relies on assumptions about how materials might be recycled or reused today and ignores expected industrial decarbonization by 2050.

- **Is there double counting?** Grouping Modules A–D could lead to double counting across the life cycles of different products. This happens when Module D (used to track the total impacts and benefits) in one product includes data already tracked in Modules A1–A3 of another product.
- **Does it recognize the circular economy?** Arguably, because Module D considers the benefits of recycling new or virgin materials and not that of already recycled ones, it “penalizes” products for using recycled content inputs. This means that products with high Module D values may actually be less circular than products with low values for Modules A–C.

Ultimately, claiming a low environmental footprint based on mishandled data in an EPD from Module D can be risky. The UK Green Claims Code and European Commission Green Claims warn against misleading or exaggerated data.

EXAMPLE: HOW MISUSE OF MODULE D DISADVANTAGES CIRCULAR PRODUCTS

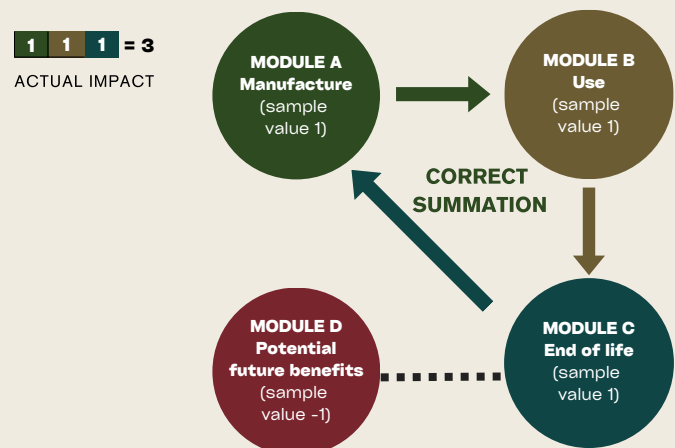
NON-CIRCULAR PRODUCT MADE WITH VIRGIN MATERIALS



Key Distinctions:

- Module A higher due to virgin materials
- Module D represents potential benefits of recycling product that – if realized – may apply to another product in future

CIRCULAR PRODUCT MADE WITH RECYCLED MATERIALS



Key Distinctions:

- Module A lower due to recycled materials
- Module D not included in summation because actual benefits of recycling product already reflected in Module A

TAKEAWAY: WHEN MODULE D IS INCORRECTLY INCLUDED IN THE MODULE SUMMATION FOR THE NON-CIRCULAR PRODUCT MADE WITH VIRGIN MATERIALS, IT IS MISTAKENLY VIEWED AS HAVING A LOWER ENVIRONMENTAL IMPACT THAN THE CIRCULAR PRODUCT.



“Module D is not a good reflection of the circular economy, as recycled products which are themselves recycled show no benefits in Module D.”

- *“What’s the story with Module D?”*
by Jane Anderson, PhD

FROM A LINEAR TO A CIRCULAR ECONOMY – A LOT HAS CHANGED

Based on the challenges outlined above, it’s clear that Module D needs a refresh. It worked in the 1990s when a linear “take-make-waste” economy dominated. However, today’s drive towards a circular economy means EPDs represent more circular products, not just linear ones, and Module D isn’t fit for that purpose.

When a company includes Module D in their environmental footprint calculations, it’s essentially taking credit for something that could happen to another product in the future – like claiming interest in an investment before it’s actually earned. In other words, the data achieved through Modules A–D addition doesn’t accurately represent a product’s life cycle.

And specifying products based on these incorrect values could skew your sustainability efforts and green claims.

Environmental footprint reductions must come from the genuine use of lower-impact raw materials, advanced manufacturing technologies, and circular economy practices. These real reductions should be clearly reflected in Module A1–A3 figures, not through creative sustainability accounting. Consistent and accurate data is your best bet to avoid unintentional greenwashing in your use of EPDs.

WANT TO LEARN MORE?

Below are additional resources for reporting Module D responsibly:

- [“What is the story with Module D?”](#)
by Jane Anderson, PhD*
- [“Module D in Environmental Product Declarations \(EPDs\)”](#) by Andreas Ciroth, PhD and Ashrakat Hamed*
- [Building Transparency Glossary: Cradle-to-Cradle](#) on reporting Module D separately

*Interface, Inc. sponsored these articles to provide an independent evaluation of marketing claims within the flooring industry. The views and opinions expressed in these analyses are those of the authors.