

**Environmental Product Declaration (EPD)**

According to EN 15804+A2/AC2021 and ECO Platform Rules

**Reduction of the Carbon Footprint  
on the Product Level for Steel  
Products**

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## 1 Regulatory Context

The steel industry faces increasing regulatory pressure to reduce its carbon footprint. Key regulations and industry standards driving this change include:

- Under the revised Construction Products Regulation (CPR) does not explicitly mandate a “carbon footprint” for steel-based products. However, it requires Environmental Product Declarations (EPDs) in accordance with EN 15804+A2, which include detailed carbon footprint assessments. These assessments are often conducted using ISO 14067, which provides a standardized methodology for calculating the carbon footprint of products. The EPDs offer transparency about the environmental impact of construction products, including their greenhouse gas emissions throughout the lifecycle.
- EU Emissions Trading System (ETS): This cap-and-trade system sets a limit on overall emissions from covered sectors, including steel production. Companies must buy or receive emissions allowances, creating a financial incentive to reduce emissions.
- Carbon Border Adjustment Mechanism (CBAM): This EU initiative aims to prevent carbon leakage by requiring importers to buy carbon certificates corresponding to the carbon price that would have been paid had the goods been produced under the EU's carbon pricing rules.

These regulations and standards underscore the importance of implementing GHG reduction measures in steel production.

## 2 GHG Emission Reduction for Manufacturing of Steel Products Divided by Module

Many companies need to reduce their impact on climate change and must comply with greenhouse gas emission limits at the product level. Environmental product declarations (EPDs) state the global warming potential (GWP), which can be used to verify the greenhouse gas emissions of the product over its life cycle. If you would like to lower your and your products GWP, please follow the following recommendations and discuss which apply to you. We are happy to help with prioritizing your measures which have the highest impact, are easy to implement, and economical.

### 2.1 Module A1: Raw material supply

The following measures can be implemented to purchase raw materials and products with low GWP:

- Raw materials/prefabricated products with lower GWP total: The total GWP of the raw material of Modules A1 to A3 is lower than that of previously used one (indicated on EPDs according to EN15804+A2/AC2021, Carbon Footprint of Products according to ISO 14067, etc.).
- Increase of secondary content: Purchase raw products with high secondary content or recycled materials (for example EAF steel, post-consumer plastics, ...). Proof of recycling/up-cycling your own products after usephase after collecting those products.
- Substitution of raw materials/prefabricated products: Only, if possible, e.g. lower alloy content in steel products.

## **2.2 Module A2: Transportation from suppliers to the production location**

The following measures can be implemented in order to decrease the GWP of transportation:

- Optimize logistics and route planning to reduce transportation emissions, make use of return trips for raw materials and products to avoid empty loads.
- Decrease of transportation distance, increase purchase of regionally sourced raw materials and products.
- Implement just-in-time delivery to reduce on-site storage and handling.
- Use low-emission vehicles for delivery to construction sites for instance electrification of transportation.
- Usage of biofuels instead of fossil fuels or usage of fuels with high biofuel contents.
- Regarding modes of transportation, keep the following hierarchy in mind: Transoceanic shipping > Rail > Road Electric > Road EURO 6/7 > Road EURO 4/5 >>> Air.

## **2.3 Module A3: Manufacturing**

The following measures can be implemented in order to decrease the GWP of manufacturing:

- Purchase of green electricity mix (bundled or unbundled GOs/RECs).
- Production of renewable electricity onsite used internally, when the electricity is not sold.
- Electrification of machinery, internal transportation, and other processes.
- Combustion of biofuels or green hydrogen instead of fossil fuels for heating, in machinery.
- Internal recycling: Incorporate end-of-life product materials back into production loops.
- Regarding packaging of your products, keep the following hierarchy in mind: Avoid packaging > reusable packaging (prioritise open loop reuse (e.g. pallets) or short distances between customers and the production facility (in case of specific, company owned packaging) > recyclable packaging > biodegradable packaging (e.g. Paper, textiles, etc.).