

UD Plank

ECO REPORT





Product: UD Plank Date: 6/24/2021





General Information

Functional unit

This Eco Report gives insights into the environmental impact of 1 UD Plank of 12.9 kg.

Content declaration

The LCA that has resulted in this Eco Report entails a cradle-to-gate analysis. Listed are materials representing more than 1% mass of the product. This factsheet is valid for the year 2021. For a full report about the used materials, please visit Background and disclaimer.

Product: UD Plank

Product description

The Ultra Duty Plank is our strongest bridge decking, designed to meet the most stringent load requirements for pedestrian and cycle bridges. The UD plank reduces the weight of the structure and is easy to work with at the installation site. It is also corrosion-resistant against a range of chemicals and salt water.

Process description

The manufacturing process is Pultrusion. Company specific data for waste and the use of energy, water and emissions for Pultrusion is used.

LCA calculation rules

System boundary

This Eco Report includes the following product stages:

- Procurement, transport and processing of raw materials as well as processing of secondary raw materials serving as inputs
- Production of the composite parts

Background data

The relevant background datasets were taken from the databases in the SimaPro 8.0.2 software, supplemented by industry data obtained by completed questionnaires. For a full report about the used methodology and background data, please visit <u>Background and disclaimer</u>

Environmental score

Carbon footprint and Cumulative energy demand (CED)

The carbon footprint (calculated with GHG Protocol, v1.01) of 1 UD Plank is equal to 35.92 of kg. The cumulative energy demand (calculated with CED 1.09) of 1 UD Plank is equal to 685.27MJ. The following figures show the environmental impact of the product.

This Eco Report is based on European Industry average figures. Third-party verification has not been performed and this report is not an Environmental Product Declaration (EPD). Environmental declarations from different programs may not be comparable. For full details behind the used methodology, please visit http://www.eucia.eu. Owner of this Eco Report: Fiberline,

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Carbon Footprint

Carbon Footprint:

35.92 kg

20% Conversion process Main materials

Cumulative energy demand:

685.27 мJ

The International Reference Life Cycle Data Systems (ILCD)

The total score of 1 UD Plank is calculated with the ILCD 2011 midpoint+ (v1.06) methodology.

| Category | Amount | Unit |
|--|---------|--------------|
| Climate change | 3.55e+1 | kg CO2 eq |
| Ozone depletion | 3.52e-6 | kg CFC-11 eq |
| Human toxicity, non-cancer effects | 2.74e-6 | CTuh |
| Human toxicity, cancer effects | 3.03e-6 | CTuh |
| Particulate matter | 1.51e-2 | kg PM2.5 eq |
| Ionizing radiation HH | 2.21e+0 | kBq U235 eq |
| Ionizing radiation E (interim) | 8.30e-4 | CTUe |
| Photochemical ozone formation | 2.70e-1 | kg NMVOC eq |
| Acidification | 1.42e-1 | molc H+ eq |
| Terrestrial eutrophication | 3.14e-1 | molc N eq |
| Freshwater eutrophication | 1.13e-3 | kg P eq |
| Marine eutrophication | 2.96e-2 | kg N eq |
| Freshwater ecotoxicity | 1.26e+3 | CTUe |
| Land use | 2.39e+1 | kg C deficit |
| Water resource depletion | 1.94e-2 | m3 water eq |
| Mineral, fossil & ren resource depletion | 5.58e-4 | kg Sb eq |

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