UPM10 Stainless steel

# Product environmental report

## General Information

At Grundfos, we're working towards achieving net zero carbon emissions across our value chain by 2050. It's a journey that is propelled by significant milestones like our **Platinum EcoVadis rating**, which places us among the top 1% of +130,000 companies worldwide and showcases our commitment to sustainable business practices. While the EcoVadis rating is not directly tied to this specific product environmental report, it reflects our broader efforts to strengthen social and environmental responsibility across the value chain. Read more about our sustainability efforts **here**.

This Product Environmental Report (PER) is designed for Original Equipment Manufacturers that incorporate pumps as integrated components within HVAC applications. It has been prepared at Grundfos HVAC OEM, a part of Grundfos Holding A/S, with life cycle assessment calculations conducted in alignment with ISO 14040/14044, EN 15804+A2, and IBU-PCR-Part B for Pumps handling liquids and liquids with solids.

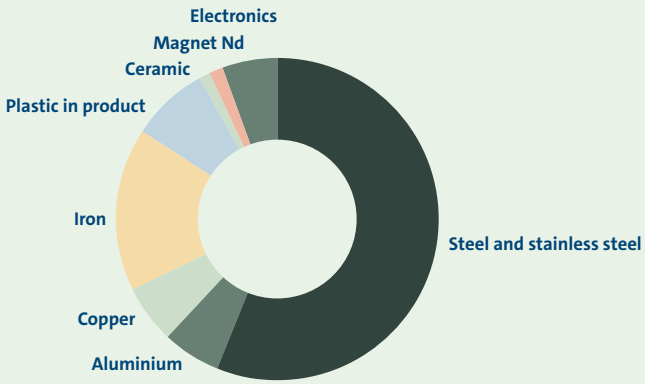
While this Product Environmental Report followed the guidance of ISO 14025/EN 15804+A2, it does not declare the Use Stage and so was not externally verified nor registered by an EPD programme - and, therefore, does not fully comply with the standards or qualify as an EPD.

The presentation of environmental impacts follows the modules of EN15804+A2 and would be categorized as 'cradle-to-gate with options'. Modules concerning shipping (A4) and use stage (B1-B7) are excluded as they are customer/application dependent for each product.

PLATINUM Top 1%
ecovadis
Sustainability Rating
JUN 2024

## Material Composition

| | KG Mass | in % |
|---|---|---|
| Steel and stainless steel | 2.057 | 56.2% |
| Aluminium | 0.219 | 5.98% |
| Brass | 0.00 | 0.0% |
| Copper | 0.207 | 5.65% |
| Iron | 0.602 | 16.4% |
| Plastic in product | 0.282 | 7.69% |
| Ceramic | 0.035 | 0.96% |
| Magnet Nd | 0.058 | 1.58% |
| Electronics | 0.195 | 5.32% |
| EBDM | 0.008 | 0.22% |
| **Total** | **3.66** | |




GRUNDFOS

Possibility in every drop

grundfos.com

## Life Cycle Stages included in the PER

| Life cycle stage according to EN 15804+A2 | Product stage | | | Construction product stage | | Use stage | | | | | | | End of life stage | | | | Benefits and loads |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Module** according to EN 15804+A2 | A1 | A2 | A3 | A4 | A5 | B1 | B2 | B3 | B4 | B5 | B6 | B7 | C1 | C2 | C3 | C4 | D |
| | Raw material supply | Transport | Manufacturing | Transport | Construction installation process | Use | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | Deconstruction demolition | Transport | Waste processing | Disposal | Reuse, recovery, recycling, potential |
| Indicator results included in PER | Yes | Yes | Yes | No | No | No | No | No | No | No | No | No | Yes | Yes | Yes | Yes | Yes |

## Environmental Total Impacts related to the Life Cycle Stages

| Impact category | Total impact |
|---|---|
| Climate Change – total [kg $CO_2$ eq.] | 34.6 |
| Climate Change, fossil [kg CO2 eq.] | 34.5 |
| Climate Change, biogenic [kg $CO_2$ eq.] | 0.0412 |
| Climate Change, land use and land use change [kg $CO_2$ eq.] | 0.0727 |
| Ozone depletion [kg CFC-11 eq.] | 2.52E-08 |
| Acidification [Mole of H+ eq.] | 0.162 |
| Eutrophication, freshwater [kg P eq.] | 8.57E-04 |
| Eutrophication, marine [kg N eq.] | 0.0323 |
| Eutrophication, terrestrial [Mole of N eq.] | 0.330 |
| Photochemical ozone formation, human health [kg NMVOC eq.] | 0.0874 |
| Resource use, mineral and metals [kg Sb eq.] | 4.35E-04 |
| Resource use, fossils [MJ] | 425 |
| Water use [$m^3$ world equiv.] | 21.9 |
| Particulate matter [Disease incidences] | 2.18E-06 |
| Ionising radiation, human health [kBq U235 eq.] | 0.898 |
| Ecotoxicity, freshwater [CTUe] | 213 |
| Human toxicity, cancer [CTUh] | 2.40E-07 |
| Human toxicity, non-cancer [CTUh] | 2.38E-07 |
| Land Use [Pt] | 94.8 |

## Declared Unit and Product Description

The declared unit is 1 piece (pcs.) of UPM10/20 with Stainless steel pumphouse.

UPM10/20 is a Grundfos high-efficiency pump. The UPM10/20 pump can be used as stand-alone or integrated circulator pump in existing systems as a replacement or in new systems with either variable or constant flow rate.


**Anna Charlotte Meyer Poulsen**
Group Vice President, HVAC OEM

**Louise Koch**
Senior Director, Head of Group Sustainability



**Disclaimer**
This Product Environmental Report (PER) is for information purposes only. This PER does not warrant or guarantee the composition of a product or that the product will retain a particular composition for a particular period. Grundfos does not assume any liability for any error or for any consequence which may arise from the use of this information to the maximum extent under the law.


**References**


- EN ISO 14040:2006 + A1:2020
- EN ISO 14044:2006 + A1:2018 + A2:2020
- EN 15804:2012 + A2:2019 + AC:2021
- Institut Bauen und Umwelt e.V (IBU) PCR Part B: Requirements on the EPD for Pumps for liquids and liquids with solids, v9
- CML 2001
- Ecoinvent Version 3.10
- Sphera Version 24.1


**Discover our full HVAC OEM product range here**

GRUNDFOS


*Publication date: 14.01.2025*



© Grundfos Holding A/S 02.2025