

# Environmental Product Declaration Sheet 2023



## MILL LOCATION

Arneburg, Saxony-Anhalt, Germany

## PRODUCT PROFILE

680,000 ADMT/yr Northern Bleached Softwood kraft pulp

## PROCESS DESCRIPTION

Mercer Stendal produces high-quality, bleached softwood kraft pulp using softwood chips purchased from regional sawmills and roundwood from northern European countries. The bleach plant process is enhanced Elemental Chlorine Free (ECF) and Total Chlorine Free (TCF).

## ECF BLEACHING SEQUENCE

(O/O)-Q-OP-D-PO

## TCF BLEACHING SEQUENCE

(O/O)-Q-OP-Q-PO

## SOFTWOOD SPECIES

- **Norway Spruce** - Picea abies
- **Scots Pine** - Pinus sylvestris
- **European Larch** - Larix decidua
- **Douglas fir** - Pseudotsuga menziesii

## MODERN PULP PRODUCTION

Mercer Stendal GmbH processes approximately 3.5 million cubic meters of wood annually for pulp production. In addition to pulp, the mill also produces bioenergy, biochemicals, and other bio-based products from wood, aiming to maximize the value of the biomass.

Mercer Stendal uses the renewable raw material wood as efficiently and sustainably as possible, implementing the principle of biorefineries: breaking wood down to its basic components and using them as extensively as technologically possible. In addition to cellulose fibers, the mill extracts various biochemicals from the wood, including turpentine and tall oil. These bio-based products are used to replace fossil-based raw materials. The mill operates Germany's largest biomass power plant, generating energy from the remaining organic components only after the material utilization of the biomass.

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## COMPLIANCE WITH INTERNATIONAL STANDARDS

Mercer Stendal pulp is fully compliant with the requirements of the US Lacey Act, the EU Timber Regulations, the EU Deforestation Regulation and the EU REACH Regulation.

## CERTIFICATIONS

FIBER	CERTIFICATION NO.	EXPIRATION DATE
PEFC Chain of Custody	DC-COC-000827	30. June, 2029
FSC® Chain of Custody	TUVDC-COC-100827	30. June, 2029
FSC® Controlled Wood	TUVDC-CW-100827	30. June, 2029

## QUALITY, ENVIRONMENT & ENERGY

ISO STANDARD	CERTIFICATION NO.	EXPIRATION DATE
ISO 9001:2015	FS518413(8349D)	30. November, 2024
ISO 14001:2015	EMS518414(8349U)	30. November, 2024
ISO 50001:2018	ENMS909685	30. November, 2026
ISO 38200: 2018	10C0005	11. September, 2027

## FOOD GRADE

STANDARD	EXPIRATION DATE
ISEGA	49257 U 19
US-FDA	21 CFR 176.170 and 176.180

## COMPOSTING

ISEGA	EN 13432	Not applicable
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## 2023 ENVIRONMENTAL PARAMETERS

<b>FOSSIL FUEL GREENHOUSE GAS EMISSIONS:</b>	111 CO <sub>2</sub> e/ADMT												
<b>RENEWABLE ELECTRICITY:</b>	100% of the electricity required for our pulp mill operation is biomass energy generated from the mill's biofuel.												
<b>ENERGY EFFICIENCY:</b>	30.50 GJ/ADMT of which 93% is from renewable sources.												
<b>WATER EMISSIONS:</b>	<table border="1"> <tbody> <tr> <td>BOD<sub>5</sub> (kg/ADMT):</td> <td>0.20</td> </tr> <tr> <td>AOX (kg/ADMT)</td> <td>0.03</td> </tr> <tr> <td>Nitrogen (kg/ADMT)</td> <td>0.10</td> </tr> <tr> <td>Phosphorous (kg/ADMT)</td> <td>0.01</td> </tr> <tr> <td>Water usage (m<sup>3</sup>/ADMT)</td> <td>32.81</td> </tr> <tr> <td>Total suspended solids (kg/ADMT)</td> <td>0.13</td> </tr> </tbody> </table>	BOD <sub>5</sub> (kg/ADMT):	0.20	AOX (kg/ADMT)	0.03	Nitrogen (kg/ADMT)	0.10	Phosphorous (kg/ADMT)	0.01	Water usage (m <sup>3</sup> /ADMT)	32.81	Total suspended solids (kg/ADMT)	0.13
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<b>WASTE MANAGEMENT:</b>	Solid waste landfilled (kg/ADMT): 10.43												

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## ROAD TO ZERO

The protection of human health and personal safety ranks at the highest level of importance to Mercer's operations.

Mercer Stendal operates in a diligent and responsible manner to ensure ZERO HARM to their people through their Road to Zero safety program. Mercer Stendal is dedicated to continuously improving their processes, being individually accountable and promoting comprehensive safety awareness.

### Mill Safety Performance - Total Recordable Incident Rate (TRIR):

(Incidents /200,000 hrs)

2021: 0.84 | 2022: 1.37 | 2023: 1.29



## QUALITY ASSURANCE

Refining is the key process required in papermaking to alter fiber characteristics. Mercer operates a state-of-the-art laboratory refiner simulating the industrial refining process to support Mercer customers, mill projects, and applied research.

## RESPONSIBLE FIBER SOURCING

Mercer consistently monitors for compliance with strict requirements. Mercer Stendal excels in environmental characteristics and redefines technology in many environmental parameters compared to other modern kraft pulp plants. Mercer is committed to sustainable forest management and wood sourcing. All Mercer Stendal's suppliers must comply with Mercer's [Environmental Policy](#) and [Wood and Fibre Procurement Policy](#), which mandate that fiber is sourced from sustainably managed forests. The approach is guided by the following principles:

- Legal and regulatory compliance in wood harvesting and purchasing
- Building long-term supplier relationships
- Respectful collaboration with small landowners and Indigenous Communities
- Prioritizing worker safety and minimizing our carbon footprint

Mercer Holz, Mercer Germany's wood procurement organization, harvests and transports wood fiber in an environmentally friendly and cost-efficient way. All of Mercer Holz's wood comes from low-risk, controlled sources. This ensures that fiber is not sourced from:

- Illegally harvested wood
- Wood harvested in violation of traditional and human rights
- Wood from forests in which high conservation values are threatened by management activities
- Wood harvested in forests being converted to plantations or non-forest use
- Wood from forests in which genetically modified trees are planted

## FOOD GRADE CERTIFICATIONS

Both of Mercer Stendal's softwood pulps are manufactured and rigorously tested by independent labs (ISEGA) to ensure they meet Food-Grade Standards, including European Standards EC No. 1935/2004 and BfR-Recommendation XXXVI. Paper and Board for food contact and XXXVI/1. Cooking Papers, Hot Filter Papers, and Filter Layers.

## ENVIRONMENTAL PERFORMANCE

Mercer consistently monitors for compliance with strict requirements. Compared to other modern kraft pulp plants, Mercer Stendal excels in terms of environmental characteristics and redefines the state of technology in many environmental parameters.

Large amounts of water are taken from the Elbe River for production purposes and returned to the river following a complicated process of mechanical and biological cleaning. The Elbe is part of the "Middle Elbe Biosphere Reserve". Mercer Stendal is further surrounded by nature reserves and conservation areas and located at the edge of a "NATURA 2000" area.

One of the most important environmental parameters in this field is water consumption. Mercer Stendal has been able to reduce water consumption intensity over the last few years and has invested in new modern plant technology to increase the environmental performance, decrease GHG emissions, and improve the effluent quality.

## MITIGATING CLIMATE CHANGE

Mercer is committed to reducing its GHG intensity through continuous investment in technologies to improve energy efficiency, increase the usage of renewable fuels, and ensure full fiber utilization. Mercer Stendal has made significant capital investments in renewable electricity generation. This mill is completely self-sufficient in terms of electricity. Over 50% of this renewable energy is fed annually into the public power grid.

In 2023, Mercer Stendal generated 1,035 GWh of renewable energy, which is enough to power 332,000 private households and replaces electricity volumes that are generated on the basis of fossil fuels.

As part of its commitment to sustainable operations and products, Mercer publishes an annual company-wide Sustainability Report that demonstrates progress and achievements toward sustainability goals. The full report is available at [mercerint.com/sustainability/](https://mercerint.com/sustainability/)

## SCIENCE BASED TARGETS INITIATIVE (SBTi)

Responding to the SBTi's urgent call for corporate climate action, Mercer International has set science based GHG emissions reduction targets that have been validated by the SBTi.

