



CERTIFICATIONS

| Fibre | Certification No. | Expiration Date |
|---------------------------|----------------------------|--------------------|
| PEFC™ Chain of Custody | DC-COC-000827 | 30. June, 2024 |
| FSC® Chain of Custody | TUVDC-COC-100827 | 30. June, 2024 |
| FSC® Controlled Wood | TUVDC-CW-100827 | 30. June, 2024 |
| Quality and Environmental | Standard | Expiration Date |
| ISO 9001: 2015 | FS518413(8349D) | 30. November, 2024 |
| ISO 14001: 2015 | EMS518414(8349U) | 30. November, 2024 |
| ISO 50001:2018 | ENMS909685 | 15. January, 2024 |
| Food Grade | Standard | Expiration Date |
| ISEGA | 49257 U 19 | 28. March, 2023 |
| US-FDA | 21 CFR 176.170 and 176.180 | 28. March, 2023 |
| Composting | Standard | Expiration Date |
| ISEGA | EN 13432 | 22. March, 2024 |

MODERN PULP PRODUCTION

The most efficient use of the renewable material

The Mercer Stendal mill processes approximately 3.5 million cubic metres of wood on an annual basis. Mercer's ultimate goal is to maximize the utilization of wood. In addition to pulp production, the operation also produces bioenergy, biochemicals, and other bio-based products from wood. The goal is to achieve as much value from the wood biomass as possible.

Modern pulp production in a biorefinery

Mercer Stendal uses the renewable raw material wood as efficiently and sustainably as possible, implementing the principle of biorefineries: The wood is broken down into its basic components and then used as extensively as technologically possible. In addition to cellulose fibres, 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.

Stendal operates Germany's largest biomass power plant and generates energy from the remaining organic components only after the material utilization of the biomass.

The pulp is a raw material for the paper industry and is used primarily in the production of printing, hygiene, and specialty papers. Another important use is as fresh fibre in the recycling of waste paper. In this way the mill plays an important role in contributing to maintaining paper recycling.

For more information, visit www.mercerint.com

Environmental Product Declaration 2022

2021 ENVIRONMENTAL PARAMETERS

Fossil Fuel Greenhouse Gas Emissions

116 kg CO₂-e/ADMT - Scope 1 GHG Emissions

Renewable Electricity

100% of the electricity required for pulp mill operations is biomass energy generated from the mill's biofuel.

Energy Efficiency

27.6 GJ/ADMT of which 93% is from renewable biomass energy.

Water Emissions

| | |
|------------------------------------|------|
| BOD ⁵ (kg/ADMT) | 0.23 |
| AOX (kg/ADMT) | 0.02 |
| Nitrogen (kg/ADMT) | 0.07 |
| Phosphorous (kg/ADMT) | 0.01 |
| Water Usage (m ³ /ADMT) | 35.3 |
| Total Suspended Solids (kg/ADMT) | 0.15 |

Air Emissions

| | |
|------------------------------|------|
| SO ₂ (kg/ADMT) | 0.01 |
| Particulate Matter (kg/ADMT) | 0.14 |
| NO _X (kg/ADMT) | 1.54 |

Waste Management

| | |
|-----------------------------------|------|
| Solid waste land filled (kg/ADMT) | 22.2 |
|-----------------------------------|------|

MILL LOCATION

Arneburg, Saxony-Anhalt, Germany

PRODUCT PROFILE

NBSK Pulp: 680,000 ADMT/yr

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

SPECIES

Softwood:

- **Spruce** - Picea Abies
- **Pine** - Pinus Sylvestris

COMPLIANCE WITH INTERNATIONAL STANDARDS

Pulps are fully compliant with the requirements of the US Lacey Act, EU Timber Regulations and REACH.

Responsible Fibre Sourcing

All of Mercer Stendal's fibre suppliers must comply with the Mercer International Wood and Fibre Procurement Policy that ensures all of Mercer sources fibre from sustainably managed forests.

Mercer's wood procurement organisation, Mercer Holz, harvests and transports the renewable resource of wood as environmentally friendly and cost-efficiently as possible. All of the wood that Mercer Holz purchases comes from controlled sources. This ensures that our resource:

- is not illegally harvested,
- does not originate from areas with violation of traditional and civil rights,
- does not originate from forest in which high conservation values are threatened by management activities,
- does not originate from forests being converted from natural and semi-natural forest to plantations or non-forest use, and
- does not originate from forests in which genetically modified trees are planted.

Mercer Holz has invested in a new rail fleet that allows the transport of wood more efficiently and in a more environmentally-friendly manner by train.

Leading Safety Culture

The protection of human health and personal safety rank 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.

Mercer Stendal Safety Performance:

(Incidents /200,000 hrs)

TRIR (2018): 2.00
TRIR (2019): 2.28
TRIR (2020): 1.95
TRIR (2021): 0.84



Mercer's Fibre Centre - Quality Assurance

Refining is the key process required in paper making to alter fibre characteristics. To support customers, mill projects, and applied research, Mercer operates a state-of-the-art laboratory refiner simulating the industrial refining process. This device is integrated into a fully equipped wet and dry laboratory.

Environmental Product Declaration 2022

Environmental Performance

Compliance with strict requirements is constantly monitored by the company. Compared to other modern kraft pulp plants, the Stendal pulp mill clearly 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". The Stendal mill 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. The Stendal mills 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.

Food Grade Certification

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.

Mitigating Climate Change

Mercer is committed to reducing its GHG intensity through continuous investment in technologies for improving energy efficiency, increasing the usage of renewable fuels and through full-fibre utilization. Mercer Stendal has made significant capital investments in renewable electricity generation. This mill is completely self-sufficient in terms of electricity. In 2021, Mercer Stendal has generated 896 GWh of renewable energy. Over 50% of this renewable energy is fed into the public power grid every year. The amount of electricity produced annually by Mercer Stendal could supply more than 284,000 private households. It replaces electricity volumes that are generated on the basis of fossil fuels.



For more information, visit www.mercerint.com