

2025 ENVIRONMENTAL PRODUCT DECLARATION

MERCER ROSENTHAL

PRODUCT: ROSENTHAL NORTHERN BLEACHED SOFTWOOD KRAFT PULP (NBSK)

MILL OVERVIEW

The Mercer Rosenthal mill produces high-strength NBSK pulp, biochemicals, biomaterials and bioenergy. The pulp is manufactured using environmentally conscious bleaching sequences to offer both Elemental Chlorine Free (ECF: OO-OP-D-PO) and Total Chlorine Free (TCF: OO-OP-Z-PO) variants



PRODUCT FEATURES

Product: TCF and ECF Northern Bleached Softwood Kraft Pulp (NBSK)

Raw Material: Chemical pulp from fiber sourced from responsibly managed forests primarily in Germany

ENVIRONMENTAL MANAGEMENT & CERTIFICATIONS

- The traceability of wood through the supply chain is ensured by FSC® (FSC-C019862) and PEFC (PEFC/04-31-0411) Chain of Custody and EU Timber Regulation compliance¹
- ISO 9001:2015 Quality Management
- ISO 14001:2015 Environmental Management
- ISO 50001:2018 Energy Management
- ISO 38200: 2018 Chain of custody
- ISEGA Food Grade and Composting certified
- Copies of certificates are available on our website mercerint.com/sustainability/certificates/

SOFTWOOD SPECIES

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

ENVIRONMENTAL PARAMETERS

Water

COD	6.21 kg/ADMT
AOX	0.03 kg/ADMT
BOD	0.06 kg/ADMT
TSS	0.19 kg/ADMT
Ntot	0.05 kg/ADMT
Ptot	0.01 kg/ADMT
Effluent flow	24.12 m³/ADMT
Water usage	32.11 m³/ADMT

Air

SO ₂	0.08 kg/ADMT
TRS	0.034 kg/ADMT
PM	0.14 kg/ADMT
NO _x	2.03 kg/ADMT
CO ₂ (fossil)	139 kg CO ₂ e/ADMT
CO ₂ (biogenic)	2561 kg CO ₂ /ADMT

Solid process waste landfilled 9.90 BD kg/ADMT

Renewable Energy 90%

Air-dried metric tonne of pulp (ADMT)

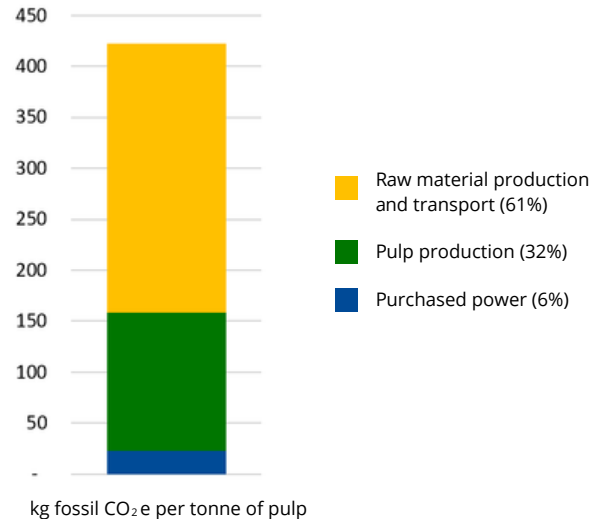
¹ Mercer Rosenthal has already implemented the required traceability and due diligence frameworks to comply with the EU Deforestation Regulation (EUDR) standards that will replace the EU Timber Regulation (EUTR).

PRODUCT CARBON FOOTPRINT

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kilograms per air-dried metric tonne of pulp (kg/ADMT)	
CRADLE-TO-GATE	
Product Carbon Footprint:	432 kg CO₂e
Additional Information:	
Biogenic carbon stored in the product (kg CO ₂)	1455
Biogenic carbon sequestration in the forest (kg CO ₂) (see biogenic carbon note below)	0



How this product carbon footprint is calculated

This carbon footprint has been calculated for all significant greenhouse gas (GHG) emissions for the life cycle stages ‘cradle-to-gate’ following the GHG Protocol Product Standard and ISO 14040 and 14044 standards for Life Cycle Assessment (LCA) and ISO 14067 for carbon footprints. The footprint includes the production of raw materials, fuels & energy, manufacturing of the pulp, and inbound & internal transport to Mercer.

- **Boundaries & Data:** Organizational and value chain boundaries conform to the GHG Protocol Corporate, Scope 2 Guidance, and Value Chain (Scope 3) Standards. Calculations prioritize primary data, applying a 3% significance threshold for minor emission exclusions. Secondary data is derived from credible sources.
- **Biogenic Carbon:** This product contains 398 kg of biogenic carbon per tonne of pulp equivalent to 1,455 kg CO₂, quantified using the -1/+1 chemistry approach. The forest biogenic carbon flux has been set at zero as consensus on methodologies is still developing and it is difficult to isolate and attribute to a specific product. When forests are managed sustainably, carbon stocks are growing or at least equal.
- **Characterization Factors:** Global Warming Potential (GWP) characterization factors utilize the most recent IPCC values where feasible, adapting to earlier IPCC metrics where required by local regulations or data availability.

Third-Party Verification: The emissions inventory has received third-party limited assurance at the corporate level. The independent verification letter is available in our [Sustainability Report](#). We are committed to data integrity and may seek third-party verification for product-level emissions in the future.

Date of Issue: 12.06.2026

Data Collection Period: 1.1.2025 to 31.12.2025



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Available Upon Request

- Product carbon footprint data aligned with the Ten Toes of CEPI's (Confederation of European Paper Industries) Framework for Carbon Footprints for Paper and Board Products or PACT (Partnership for Carbon Transparency) Methodology.
- Tailored logistics footprints calculated directly to our customers' final destination.
- Forest biogenic carbon emissions and removals estimates can be provided upon request.

Carbon footprints are complex estimates based on specific assumptions. Comparisons between product carbon footprints studies should be made with care as results are influenced by many factors including but not limited to the standards and frameworks followed, data quality and availability, assumptions and systems boundaries.

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