

METSÄBOARD PRO FBB BRIGHT PAPER PROFILES

Äänekoski mill paper profile pages 1-4

Husum mill paper profile pages 5-8

METSÄ BOARD CORPORATION

Product Safety

sustainability.metsaboard@metsagroup.com



PRODUCT MetsäBoard Pro FBB Bright 180–350 g/m²

COMPANY Metsä Board Corporation

MILL Äänekoski mill

Information gathered from 1.1.2023 to 31.12.2023 Date of issue 3.4.2024

PRODUCT ENVIRONMENTAL DATASHEET FOR PAPERBOARD

ENVIRONMENTAL MANAGEMENT

Certified environmental management system at the mill since 2001

Company systems ensure traceability of the origin of wood: YES NO 100% RECOVERED PAPER

Certified environmental management system for wood procurement and board and pulp production according to ISO 14001. Certified PEFC Chain of Custody (PEFC/02-31-92) and FSC® Chain of Custody (FSC-C001580). Certificates are available at [Metsä Board's web page](#).

ENVIRONMENTAL PARAMETERS

The figures are based on methods and procedures of measurement approved by the local (or national) environmental regulators at the production site. The figures include both pulp and paperboard production.

Water	COD	6.3	kg/tonne
	AOX	0.035	kg/tonne
	NTot	0.069	kg/tonne
	PTot	0.004	kg/tonne

Air	SO ₂	0.042	kg/tonne
	NO _x	0.68	kg/tonne
	CO ₂ (fossil)*	40	kg/tonne

*This figure does not represent a full scope 1,2 & 3 of CO₂ footprint and neither of carbon offsetting emissions.

Solid waste landfilled 0.019 BDkg/tonne

Purchased electricity consumption*
/tonne of final product 1296 kWh

* Any CO₂ fossil emissions related to the purchased electricity are not reported.

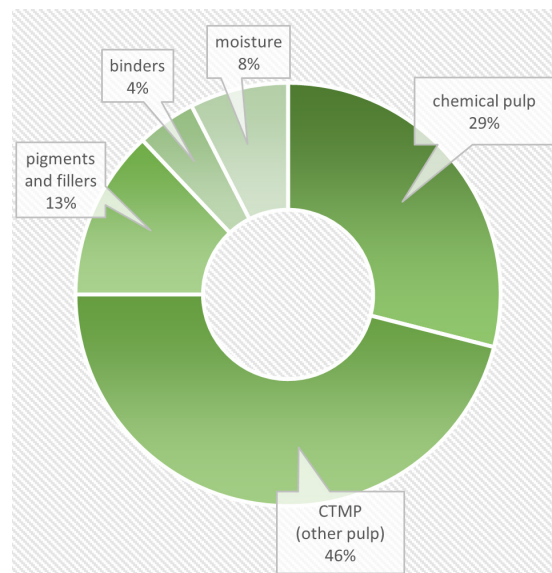
MORE INFORMATION

Contact Petteri Teerijoki

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P.O. Box 400, FI-44101 Äänekoski

PRODUCT COMPOSITION



This product contains biogenic carbon, equivalent to 1375 kg of CO₂ per tonne of product.

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e-mail petteri.teerijoki@metsagroup.com

SUPPLEMENTARY SHEETS TO PAPER PROFILE

MetsäBoard Pro FBB Bright 180–350 g/m²

Metsä Board Äänekoski mill, Finland

MetsäBoard Pro FBB Bright is a fully coated bleached paperboard with white back. It is a lightweight and stiff multipurpose board. Thanks to its high brightness on top and reverse MetsäBoard Pro FBB Bright provides an ideal base for special finishing effects. It has excellent sensory properties for sensitive premium products and it is approved for direct food contact (country specific limitations may apply).

1. MILL INFORMATION

Metsä Board Äänekoski mill produces paperboards for packaging and graphics applications. The main market is Europe but significant quantities are delivered also to Asia and Americas. Paperboard is transported from the mill to ports on Finland's south coast by rail or road and to customers in Europe and overseas by vessel. Small quantities of paperboard are delivered by road to domestic and Scandinavian customers.

Metsä Board only uses Metsä Group's own pulps in its production. Chemi-thermomechanical pulp (BCTMP) is delivered from Metsä Board Joutseno and Kaskinen mills and chemical pulp from Metsä Fibre Äänekoski mill. Mill effluent is treated in a chemi-mechanical effluent treatment plant. The treated effluent is directed to Lake Kuhnamo.

Metsä Board Äänekoski mill is located in the town of Äänekoski, about 310 km north of Helsinki and 40 km north of the town of Jyväskylä.

[More information at our website](#)

2. MAIN ENVIRONMENTAL TARGETS AND PERFORMANCE

Metsä Board's sustainability targets are based on the company's strategy, the materiality assessment of sustainability matters and Metsä Group's sustainability targets, which were updated in 2022 and 2023. With our 2030 sustainability targets, we are committed to safeguarding natural biodiversity, mitigating climate change, reducing emissions and promoting the sustainable use of natural resources. Metsä Board is aiming for 100% fossil free production (i.e. zero fossil-based Scope 1 and 2 CO₂ emissions) and products, as well as more efficient energy and water use by the end of 2030.

In 2023, 90% of the energy used by Metsä Board was fossil free, and over 99% of raw and packaging materials came from fossil free sources. Metsä Board's energy efficiency decreased by 5.8% (target minimum +10% by the end of 2030), and the use of process water per product tonne increased by 2% (target -35% by the end of 2030) from 2018.

In 2023, Metsä Board achieved excellent scores in several ESG ratings, including CDP A List in climate change and water security, and A- in forests; the highest Platinum level and high scores in each of the four themes assessed by EcoVadis; and an A- rating in the Ellen MacArthur Foundation's Circulytics circular economy assessment. These and other ratings provide important information of Metsä Board's sustainability ambition to our stakeholders and help us improve our operations further.

Read more in [Metsä Board's Annual review 2023](#), [Metsä Board Sustainability Review 2023](#) and [sustainability website](#).

3. MANAGEMENT SYSTEMS

Metsä Board continuously develops the efficiency of its production units to improve resource efficiency and environmental performance. Metsä Board follows up on its environmental impact, for example, in the form of greenhouse gas emissions, energy consumption, water use and waste generation. One of Metsä Board's key duties is to guarantee that all its operations are sustainable and that all its products are safe for people and the environment.

All Metsä Board mills have the ISO 22000 certified food safety system, and the mills producing paperboard for food contact, i.e. Kemi, Kyro, Simpele, Äänekoski and Husum board mills, are also certified according to FSSC 22000 food safety system. The FSSC 22000 provides a framework for effectively managing a company's food safety responsibilities and is recognised by the Global Food Safety Initiative (GFSI).

Metsä Board's environmental management follows Metsä Group's Environmental Policy and complies with the ISO 14001 standard. The main principles of the Environmental Policy are environmental responsibility, sustainable forestry, and requiring responsibility in operations also from our suppliers. All production units have the ISO 9001 quality, ISO 14001 environmental, ISO 50001 energy, and ISO 45001 occupational health and safety management systems.

Metsä Board mills are certified according to PEFC and FSC Chain of Custody forest certification systems, which enable full traceability in the wood supply chain. The wood origins of Metsä Board's products are externally verified. Raw materials and services are purchased from suppliers who sign and follow Metsä Group's Supplier Code of Conduct.

MANAGEMENT SYSTEMS

ISO 9001 Quality Management	Inspecta No. 6396-07
ISO 14001 Environmental Management	Inspecta No. 6397-06
ISO 22000 Food Safety Management	Inspecta No. 6398-07
FSSC 22000 Food Safety System Certification	Inspecta No. 10583-04
ISO 50001 Energy Management	Inspecta No. 6399-09
ISO 45001 Occupational Health and Safety Management	Inspecta No. 6400-06
PEFC Chain of Custody	INS-PEFC-COC-205328
FSC Chain of Custody	INS-COC-100100

SUPPLEMENTARY SHEETS TO PAPER PROFILE

MetsäBoard Pro FBB Bright 180–350 g/m²

Metsä Board Äänekoski mill, Finland

4. ORIGIN OF WOOD

Regardless of the country of origin or whether it comes from certified or controlled forests, Metsä Group always knows the origin of the wood it uses, ensures its legality and takes measures to prevent the risk of unacceptable practices in the supply chain.

Metsä Group uses wood that comes from sustainably managed forests. Metsä Group's wood procurement is handled by the company's principal owner, Metsäliitto Cooperative. Metsäliitto Cooperative holds PEFC Chain of Custody, FSC Chain of Custody and controlled wood certificates. Metsäliitto Cooperative's wood origin tracing system is included in its certified ISO 9001 quality and 14001 environmental management systems.

Metsä Board uses only fully traceable wood for its products. In 2023, the share of certified wood Metsä Board used was 91%, while worldwide, only 11% of all forests are certified, and the remaining 9% came from controlled forest origins. The certification claim is shown on the delivery documents of each product.

Wood information of the product (gathered from 1.1.2023 to 31.12.2023):

COUNTRY OF WOOD ORIGIN	SHARE OF TOTAL WOOD SUPPLY	NAME OF SPECIES
Finland	>99%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Estonia	<1%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Latvia	<1%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)

This product fulfils the requirements of EU Timber Regulation and UK Timber Regulation as well as US Lacey Act. More about Metsä Group's wood procurement: metsagroup.com

5. HANDLING AFTER USE

PRODUCT

The recommended handling after use is recycling but it can also be used for incineration. Preferred handling depends on local conditions and regulations. The product also has both industrial as well as home composting certification.

PRODUCT PACKAGING MATERIAL

The packaging material can be recycled or incinerated to produce energy. Preferred handling depends on local conditions and regulations.

6. ENVIRONMENTAL PARAMETERS

COD = CHEMICAL OXYGEN DEMAND

The amount of oxygen consumed in complete chemical oxidation of matter present in waste water.

AOX = ADSORBABLE ORGANIC HALOGEN COMPOUNDS

Reported as the total amount of chlorine bound to organic compounds in waste water.

N_{TOT} = TOTAL AMOUNT OF ORGANIC AND INORGANIC NITROGEN

P_{TOT} = TOTAL AMOUNT OF ORGANIC AND INORGANIC PHOSPHORUS

SO₂ = SULPHUR DIOXIDE

Total sulphur emissions to air from burning sulphur-containing fuels and from chemical pulp processing, expressed as SO₂.

NO_x = NITROGEN OXIDES (NO AND NO₂)

Nitrogen oxides emissions to air from combustion processes, expressed as NO_x.

CO₂ = FOSSIL CARBON DIOXIDE

In the context of papermaking, fossil carbon dioxide is generated from the combustion of fossil fuels during the production of pulp and paper.

BIOGENIC CARBON

The amount of biomass based carbon stored in the product, expressed as CO₂.

SOLID WASTE = NON-LIQUID WASTE LANDFILLED ON SITE AND/OR ELSEWHERE

Organic and inorganic waste materials are defined, calculated and declared as completely dry matter.

PURCHASED ELECTRICITY CONSUMPTION

Amount of purchased electricity per produced tonne of product.

Note: Emissions of SO₂, NO_x and CO₂ resulting from external electricity suppliers are not included.



Metsä

Metsä Board is a producer of lightweight and high-quality folding boxboards, food service boards and white kraftliners. The pure fresh fibres we use in our products are a safe, renewable and recyclable resource, that can be traced back to northern forests. We aim to have completely fossil free mills and raw materials by the end of 2030. We promote a culture of diversity, equality and inclusion.

Metsä Board is listed on the Nasdaq Helsinki. In 2023 our sales totalled EUR 1.9 billion, and we have around 2,300 employees. Metsä Board is part of Metsä Group, whose parent company Metsäliitto Cooperation is owned by over 90,000 Finnish forest owners. The sales of the whole Metsä Group were EUR 6.1 billion.

METSÄ BOARD CORPORATION

P.O. Box 20

FI-02021 Metsä, Finland

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metsagroup.com/metsaboard





PRODUCT MetsäBoard Pro FBB Bright 180–350 g/m²

COMPANY Metsä Board Corporation

MILL Husum mill

Information gathered from 1.1.2023 to 31.12.2023 Date of issue 3.4.2024

PRODUCT ENVIRONMENTAL DATASHEET FOR PAPERBOARD

ENVIRONMENTAL MANAGEMENT

Certified environmental management system at the mill since 1997

Company systems ensure traceability of the origin of wood: YES NO 100% RECOVERED PAPER

Certified environmental management system for wood procurement and board and pulp production according to ISO 14001. Certified PEFC Chain of Custody (PEFC/02-31-92) and FSC® Chain of Custody (FSC-C001580). Certificates are available at [Metsä Board's web page](#).

ENVIRONMENTAL PARAMETERS

The figures are based on methods and procedures of measurement approved by the local (or national) environmental regulators at the production site. The figures include both pulp and paperboard production.

Water	COD	7.6	kg/tonne
	AOX	0.025	kg/tonne
	NTot	0.117	kg/tonne
	PTot	0.016	kg/tonne

Air	SO ₂	0.18	kg/tonne
	NO _x	1.05	kg/tonne
	CO ₂ (fossil)*	101	kg/tonne

*This figure does not represent a full scope 1,2 & 3 of CO₂ footprint and neither of carbon offsetting emissions.

Solid waste landfilled 0.34 BDkg/tonne

Purchased electricity consumption*
/tonne of final product 1365 kWh

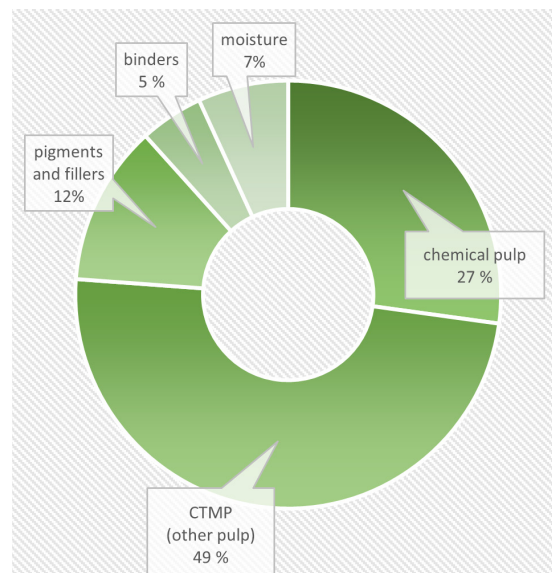
* Any CO₂ fossil emissions related to the purchased electricity are not reported.

MORE INFORMATION

Contact Jonas Adler

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S-896 80 Husum, Sweden

PRODUCT COMPOSITION



This product contains biogenic carbon, equivalent to 1396 kg of CO₂ per tonne of product.

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SUPPLEMENTARY SHEETS TO PAPER PROFILE

MetsäBoard Pro FBB Bright 180–350 g/m²

Metsä Board Husum mill, Sweden

MetsäBoard Pro FBB Bright is a fully coated bleached paperboard with white back. It is a lightweight and stiff multipurpose board. Thanks to its high brightness on top and reverse MetsäBoard Pro FBB Bright provides an ideal base for special finishing effects. It has excellent sensory properties for sensitive premium products and it is approved for direct food contact (country specific limitations may apply).

1. MILL INFORMATION

Metsä Board Husum produces market pulp, uncoated and coated paperboard and uncoated linerboard. The main markets are Europe and North America. Ships are used to transport the products to the terminals in Germany, UK and North America. The products are then forwarded by rail or road, depending on the distance and location of the customer. The products are transported to the Nordic markets mostly by truck, but train is also used.

Metsä Board Husum is located in the village of Husum, on the east coast of Sweden, about 600 km north of Stockholm. It is an integrated mill with a production capacity of 850,000 tonnes of paperboard and linerboard and 730,000 tonnes of chemical pulp. Metsä Board only uses Metsä Group's own pulps in its production. The mill is surrounded by forests and agricultural land. The treated effluent is directed after careful purification to the Baltic Sea. [More information at our website](#)

2. MAIN ENVIRONMENTAL TARGETS AND PERFORMANCE

Metsä Board's sustainability targets are based on the company's strategy, the materiality assessment of sustainability matters and Metsä Group's sustainability targets, which were updated in 2022 and 2023. With our 2030 sustainability targets, we are committed to safeguarding natural biodiversity, mitigating climate change, reducing emissions and promoting the sustainable use of natural resources. Metsä Board is aiming for 100% fossil free production (i.e. zero fossil-based Scope 1 and 2 CO₂ emissions) and products, as well as more efficient energy and water use by the end of 2030.

In 2023, 90% of the energy used by Metsä Board was fossil free, and over 99% of raw and packaging materials came from fossil free sources. Metsä Board's energy efficiency decreased by 5.8% (target minimum +10% by the end of 2030), and the use of process water per product tonne increased by 2% (target -35% by the end of 2030) from 2018.

In 2023, Metsä Board achieved excellent scores in several ESG ratings, including CDP A List in climate change and water security, and A- in forests; the highest Platinum level and high scores in each of the four themes assessed by EcoVadis; and an A- rating in the Ellen MacArthur Foundation's Circulytics circular economy assessment. These and other ratings provide important information of Metsä Board's sustainability ambition to our stakeholders and help us improve our operations further.

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MANAGEMENT SYSTEMS

ISO 9001 Quality Management	RISE No. 5568
ISO 14001 Environmental Management	RISE No. 5568 M
ISO 22000 Food Safety Management	ControlCert No. 2064-22-08401-3
FSSC 22000 Food Safety System Certification	ControlCert No. 2064-22-08401-2
ISO 50001 Energy Management	RISE No. C001960
ISO 45001 Occupational Health and Safety Management	RISE No. C001961
PEFC Chain of Custody	INS-PEFC-COC-205328
FSC Chain of Custody	INS-COC-100100

SUPPLEMENTARY SHEETS TO PAPER PROFILE

MetsäBoard Pro FBB Bright 180–350 g/m²

Metsä Board Husum mill, Sweden

4. ORIGIN OF WOOD

Regardless of the country of origin or whether it comes from certified or controlled forests, Metsä Group always knows the origin of the wood it uses, ensures its legality and takes measures to prevent the risk of unacceptable practices in the supply chain.

Metsä Group uses wood that comes from sustainably managed forests. Metsä Group's wood procurement is handled by the company's principal owner, Metsäliitto Cooperative. Metsäliitto Cooperative holds PEFC Chain of Custody, FSC Chain of Custody and controlled wood certificates. Metsäliitto Cooperative's wood origin tracing system is included in its certified ISO 9001 quality and 14001 environmental management systems.

Metsä Board uses only fully traceable wood for its products. In 2023, the share of certified wood Metsä Board used was 91%, while worldwide, only 11% of all forests are certified, and the remaining 9% came from controlled forest origins. The certification claim is shown on the delivery documents of each product.

Wood information of the product (gathered from 1.1.2023 to 31.12.2023):

COUNTRY OF WOOD ORIGIN	SHARE OF TOTAL WOOD SUPPLY	NAME OF SPECIES
Finland	50%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Sweden	35%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i> , <i>Pinus contorta</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Estonia	8%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Latvia	7%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)
Norway	<1%	spruce (<i>Picea abies</i>), pine (<i>Pinus sylvestris</i>), birch (<i>Betula spp.</i>), aspen (<i>Populus tremula</i>)

This product fulfils the requirements of EU Timber Regulation and UK Timber Regulation as well as US Lacey Act. More about Metsä Group's wood procurement: [metsagroup.com](https://www.metsagroup.com)

5. HANDLING AFTER USE

PRODUCT

The recommended handling after use is recycling but it can also be used for incineration. Preferred handling depends on local conditions and regulations. The product also has both industrial as well as home composting certification.

PRODUCT PACKAGING MATERIAL

The packaging material can be recycled or incinerated to produce energy. Preferred handling depends on local conditions and regulations.

6. ENVIRONMENTAL PARAMETERS

COD = CHEMICAL OXYGEN DEMAND

The amount of oxygen consumed in complete chemical oxidation of matter present in waste water.

AOX = ADSORBABLE ORGANIC HALOGEN COMPOUNDS

Reported as the total amount of chlorine bound to organic compounds in waste water.

N_{TOT} = TOTAL AMOUNT OF ORGANIC AND INORGANIC NITROGEN

P_{TOT} = TOTAL AMOUNT OF ORGANIC AND INORGANIC PHOSPHORUS

SO₂ = SULPHUR DIOXIDE

Total sulphur emissions to air from burning sulphur-containing fuels and from chemical pulp processing, expressed as SO₂.

NO_x = NITROGEN OXIDES (NO AND NO₂)

Nitrogen oxides emissions to air from combustion processes, expressed as NO_x.

CO₂ = FOSSIL CARBON DIOXIDE

In the context of papermaking, fossil carbon dioxide is generated from the combustion of fossil fuels during the production of pulp and paper.

BIOGENIC CARBON

The amount of biomass based carbon stored in the product, expressed as CO₂.

SOLID WASTE = NON-LIQUID WASTE LANDFILLED ON SITE AND/OR ELSEWHERE

Organic and inorganic waste materials are defined, calculated and declared as completely dry matter.

PURCHASED ELECTRICITY CONSUMPTION

Amount of purchased electricity per produced tonne of product.

Note: Emissions of SO₂, NO_x and CO₂ resulting from external electricity suppliers are not included.



Metsä

Metsä Board is a producer of lightweight and high-quality folding boxboards, food service boards and white kraftliners. The pure fresh fibres we use in our products are a safe, renewable and recyclable resource, that can be traced back to northern forests. We aim to have completely fossil free mills and raw materials by the end of 2030. We promote a culture of diversity, equality and inclusion.

Metsä Board is listed on the Nasdaq Helsinki. In 2023 our sales totalled EUR 1.9 billion, and we have around 2,300 employees. Metsä Board is part of Metsä Group, whose parent company Metsäliitto Cooperation is owned by over 90,000 Finnish forest owners. The sales of the whole Metsä Group were EUR 6.1 billion.

METSÄ BOARD CORPORATION

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