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MATERIAL CIRCULARITY STATEMENT

Metsä Board is a leading European producer of premium fresh fibre paperboards. All our paperboards and pulps are made from fresh fibres, which can be traced back to their source in sustainably managed northern forests. Products are manufactured at Metsä Board production sites in compliance with good manufacturing practice and quality management system certified according to ISO 9001, ISO 14001, ISO 45001, ISO 50001, ISO/FSSC 22000, PEFC (02-31-92) and FSC® (C001580).

This document outlines key global legislation and standards for product end-of-life management and the circular economy. Its structure follows the priority order of waste hierarchy seen below which is the cornerstone of European Union (EU) waste policies and legislation, and is laid out in the EU Waste Framework Directive 2008/98/EC (WFD). The document concludes with a chapter on transport packaging.



PACKAGING AND PACKAGING WASTE REGULATIONS AND STANDARDS

We hereby warrant that Metsä Board products are in compliance with the requirements of Directive 94/62/EC and its amendments. Furthermore, Metsä Board operates in accordance with the relevant requirements of Regulation (EU) 2025/40 on packaging and packaging waste (PPWR) in force to date and continues to follow the development of the regulation.



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PREVENTION

EN 13428 Requirements specific to manufacturing and composition. Prevention by source reduction ISO 18602 Optimization of the packaging system	Metsä Board has been continuously able to reduce the weight of its products without compromising the important strength performance characteristics of the material. Reduction of the material weight is an important step towards the minimization of the packaging waste.
CR 13695-1 Requirements for measuring and verifying the four heavy metals and other dangerous substances present in packaging and their release into the environment – Part 1: Requirements for measuring and verifying the four heavy metals present in packaging TPCH (CONEG) Certification / The Model Toxics in Packaging Legislation (USA)	Concentrations of four named heavy metals Lead (Pb), Chromium (Cr (VI)), Mercury (Hg) and Cadmium (Cd) are clearly below the regulated limits in Metsä Board products.
CEN/TR 13695-2 Requirements for measuring and verifying the four heavy metals and other dangerous substances present in packaging and their release into the environment. Part 2: Requirements for measuring and verifying dangerous substances present in packaging, and their release into the environment. ISO 18602 Optimization of the packaging system	Presence of noxious and other hazardous substances as constituents of the packaging material is minimized. Substances classified as hazardous to the aquatic environment are not present in the product above trace level.
SCIP database notification according to Article 9(1)(i) of the Waste Framework Directive 2008/98/EC	Metsä Board's paperboards do not contain substances of very high concern (SVHCs) at a concentration above 0.1% weight by weight (w/w). Therefore, Metsä Board is not obligated to make SCIP notification according to Article 9(1)(i) of the Waste Framework Directive 2008/98/EC.

PREPARING FOR REUSE

EN 13429 Reuse	Generally not applicable. Packaging made of Metsä Board paperboards is not foreseen to be refilled or used for the
	same purpose for which it was conceived.

RECYCLING

EN 643 European list of standard grades of paper and board for recycling *	All products are standard grades and suitable for recycling. They do not contain prohibited materials, or non-paper components.
EN 13430 Requirements for packaging recoverable by material recycling	Metsä Board products have been manufactured using fresh fibres and chemicals which are compatible with known, relevant and industrially available paper recycling
ISO 18604 Material recycling	technologies in the EU.

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97/129/EC: Commission Decision of 28
January 1997 establishing the identification
system for packaging materials pursuant to
European Parliament and Council Directive
94/62/EC on packaging and packaging waste*



All Metsä Board's standard paperboards are considered non-corrugated fibreboard, PAP 21, if they do not fall into the below categories.



All Metsä Board's WKL products used as liner are normally considered corrugated fibreboard, PAP 20.



Metsä Board's PE-coated paperboard grades are considered composite materials of fibreboard/plastic, C/PAP 81.

Recyclability assessment methodology RAM – UK Government DEFRA*

- Metsä Board standard paperboard products: WKL, FBB, FSB, and one-side PE laminated grades with less than 5% PE are classified as 'green' under paper and card (PC).
- All Metsä Board's one-side PE laminated grades with 5 15% PE, which are being used as non-liquid cartons are classified as 'green' under fibre-based composite materials (FC).
- Metsä Board's one-side PE-coated paperboard grades with 5 15% PE that are used as liquid cartons can be rated as amber (FC), if no further exemptions apply.**
 - Metsä Board's two-side PE-coated paperboard grades and grades with more than 15% PE can be rated as red (FC), if no further exemptions apply.**

4evergreen Circularity by Design Guideline 3 – Standard recycling (PART I)

Metsä Board standard paperboard products are fully compatible with standard recycling process according to the quideline.

One-side extrusion coated PE products are either fully, or conditionally compatible with standard recycling process, whereas two-side coated grades may require specialized mill recycling.

Recyclability test results are presented below.

RECYCLABILITY TEST RESULTS

This table summarizes the recyclability test results of Metsä Board's paperboard products within the specified grammage range. The conducted tests emulate the most relevant industrial phases in standard paper and board recycling mills dedicated to the recycling of paper and board according to Cepi Recyclability Laboratory Test Version 2 (Oct 2022). The score represents the lowest value from samples analysed and it reflects paperboard qualities after recycling, as a recyclate.

Product name	Sample grammage (g/m²)	Score
MetsäBoard Classic FBB (SIM)	200 - 340	92/100
MetsäBoard Classic WKL	135 - 175	97/100
MetsäBoard Natural FBB	175 - 325	99/100
MetsäBoard Natural FBB CX (Tako)	205	99/100

Metsä Board Corporation

^{*} It is the responsibility of the converter processing the plain paperboard supplied, to reassess the classification of their final products. If you are unsure regarding classification, please contact your Metsä Board representative for assistance.

^{**} the EPR rating can improve depending on the available dedicated take-back schemes that meet the specified criteria of the take-back protocol.



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MetsäBoard Natural FSB Cup	185 - 310	99/100
MetsäBoard Natural WKL Bright	70 - 160	100/100
MetsäBoard Pro FBB Bright (HUS; AKI)	180 - 350	95/100
MetsäBoard Pro FBB CX (Tako)	190 - 220	100/100
MetsäBoard Pro FBB OBAfree	195 - 345	100/100
MetsäBoard Pro FSB Cup	205 - 330	95/100
MetsäBoard Pro WKL	130 - 200	94/100
MetsäBoard Prime FBB EB	195 - 350	89/100
MetsäBoard Prime FBB CX (Tako)	215 - 260	100/100
MetsäBoard Prime FBB CXB (Tako)	215 - 260	100/100
MetsäBoard Prime FBB Bright (KYR)	170 - 380	95/100
MetsäBoard Prime WKL	125 - 250	95/100

Description of the total score:

0-100 Suitable for Standard Mill recycling.

MetsäBoard Prime FBB EB passed Western Michigan University's SBS Equivalency (WMU SBS-E) testing protocol. This includes Repulpability Process (Part 1) and Recyclability Process (Part 2). The US Federal Trade Commission (FTC) guidelines (FTC Green guides § 260.6 Certifications and Seals of Approval) requires for the use of a recyclable symbol by manufacturers they must have third party independent testing and certification. WMU Pilot Plants qualify as a FTC third party testing facility.

RECYCLABILITY CLAIMS IN THE UNITED STATES

Metsä Board products are capable of being recycled, whether as part of an industrial recycling program or curbside recycling available to consumers. The FTC, however, restricts claims of recyclability if recycling of a given material is not available to a "substantial majority of consumers or communities," which means at least 60% of consumers or communities have access to recycling. Currently, access to recycling facilities on a national basis for paperboard is approximately 91%, for polyethylene coated paperboard 60% and for liquid packaging cartons 64% (Access to Recycling Study, AF&PA 2021).

Metsä Board paperboards are made of fresh fibres originating from Northern European forests. The pulp types used are high brightness BCTMP (bleached chemi-thermomechanical pulp), chemical pulp and in some cases mechanical pulp. Metsä Board produces BCTMP at our Kaskinen and Joutseno mills in Finland by using our modern, patented technology. The bleached chemical pulp is made at Metsä Group mills in Sweden and Finland.

The product specific compositions of paperboards are listed in the product composition table below. Information is based on the valid product specifications and paper profiles of each product.

Product name	Brightness top %	BCTMP %	Chemical pulp %	Mechanical pulp %	Pigments, fillers %	Binders %	Moisture %
MetsäBoard Natural FBB	82	57	28		3	4	8
MetsäBoard Natural FSB Cup	82	28	59		2	3	8
MetsäBoard Natural WKL Bright	86		80		10	3	7
MetsäBoard Classic FBB (SIM)	84	13	24	38	11	5	9
MetsäBoard Classic WKL	79		81		11	1	7
MetsäBoard Pro FBB Bright	91	49	27		12	5	7
(HUS)							
MetsäBoard Pro FBB OBAfree	85	53	26		10	4	7
MetsäBoard Pro FSB Cup	85	26	54		8	4	8

<0 Not suitable for Standard Mill recycling. Potentially recyclable in other mill types.



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MetsäBoard Pro WKL	82		78	13	2	7	
MetsäBoard Prime FBB Bright	91.5	43	28	15	6	8	
MetsäBoard Prime FBB EB	85	44	28	15	6	7	
MetsäBoard Prime WKL	82-85		75	17	2	6	·

How2Recycle® is a program that provides a standardized labelling system for product packaging, helping consumers understand what is recyclable and how to properly prepare and dispose of it. The Metsä Board paperboard grades listed below have been pre-qualified for labels by How2Recycle. The recyclability of the pre-qualified packages can change due to product application, attachments, and other factors. The How2Recycle label is not guaranteed for every Metsä Board package How2Recycle assesses.

Label Received	Label Description	Metsä Board Products Pre-qualified for Label
PAPER PAPIER BOX BOÎTE Widely Recyclable Largement Recyclable	Recycle packages with the Widely Recyclable label through curbside or drop-off programs. Packages with this label are accepted by 60% of America's recycling facilities and 50% of Canada's.	MetsäBoard Natural WKL Bright MetsäBoard Classic WKL MetsäBoard Pro FBB Bright MetsäBoard Pro FBB OBAfree MetsäBoard Pro WKL MetsäBoard Prime FBB Bright MetsäBoard Prime WKL MetsäBoard Natural FSB Cup (unformed baseboard) MetsäBoard Pro FSB Cup (unformed baseboard) MetsäBoard Classic FBB
USA ÉU. COATED PAPER BOX Check Locally* *Not recycled in all communities.	Recycling programs vary from community to community. Whenever you see a Check Locally label, you can contact your local recycler to find out if they accept that type of package.	MetsäBoard Prime FBB EB*

^{*}Due to California's SB 343 legislation, How2Recycle is not issuing Widely Recyclable labels to paperboards that have functional barrier coatings, even if those paperboards have favourable fibre testing results.

Accordingly, Metsä Board recyclability claims are limited to the Metsä Board's products, and do not apply to any final package made from them. We recommend that our customers ensure they have adequate substantiation to support any claims of recyclability or other environmental performance with respect to their specific packaging configuration.



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RECOVERY

COMPOSTABILITY

Certificate numbers for Metsä Board paperboards that fulfil the requirements of certain compostability standards:

	EN 13432 and/or ASTM D 6400 (DIN CERTCO)	NF T51-800 (DIN CERTCO)	ASTM D6400 (BPI)
Äänekoski mill	7W0344	9R0065	10529179-3
Husum mill	7W0370	9R0013, 9R0061	10529179-2
Kemi mill	7W0343	9R0060	-
Kyro mill	7W0351	9R0012, 9R0064	10529179-1
Simpele mill	7W0350	9R0063	-

Please see the certificates for product specific information. PE-coated paperboards are not compostable according to standards.

References:

- EN 13432 Requirements for packaging recoverable through composting and biodegradation. Test scheme and evaluation criteria for the final acceptance of packaging
- ASTM D 6400:2012-1 Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities
- NF T51-800 Plastics Specifications for plastics suitable for home composting

ENERGY RECOVERY

EN 13431 Requirements for packaging recoverable in the form of energy recovery, including specification of minimum inferior calorific value

Metsä Board products are suitable for energy recovery, as they are composed of much more than 50% of organic content.

ISO 18605 Energy recovery

DISPOSAL

Disposal includes methods like landfilling or incineration without energy recovery. It is the least desirable option for waste management and it should only be considered when other options are not feasible to control waste leakage. Metsä Board is not following any standards related to waste disposal, since there are currently no reliable test schemes to prove a product to be safe to litter in variable environments. Moreover, Metsä Board does not want to promote design for disposal rather than prioritizing recycling and recovery.



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METSÄ BOARD TRANSPORT PACKAGING MATERIALS

Metsä Board intends to be a forerunner in the circular economy, and provides packaging material information to our customers, so that they can use this information when sorting packaging waste locally. Information is provided according to the identification system as defined by European Commission decision 97/129/EC and the requirements of Italian legislative decree No. 116. This information is applicable to Metsä Board's paperboard (transport) packaging, supplied both in reels and sheets.

Information is available in electronical format at:



https://bit.ly/m/MetsäBoard

DISCLAIMER

The information provided in this statement applies only to the paperboard, barrier or PE coated paperboard, pulp material, and packaging materials as delivered by Metsä Board Corporation. Any conversion, printing, re-packing, or other processes can potentially change the properties of the products delivered by Metsä Board, and as a result, the information provided in this statement may no longer be applicable. Metsä Board will not be held liable if local waste management infrastructure does not support the waste management processes described in this document.

Metsä Board Corporation shall not be liable for any damage or injury resulting from misuse or uninstructed use of its products. This statement shall not be regarded as a warranty of fitness for particular purpose or end use. The end users shall have responsibility for verifying the suitability of the product for a particular application or end use.

The information given in this statement has been verified by Metsä Board Corporation at the date of its publication and we shall not be liable for any future changes in information, contents, processes, regulatory or legal requirements included in this statement. This statement is valid maximum one year unless a more recently dated version is available.

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METSÄ BOARD CORPORATION

For any queries or questions regarding the statements presented herein, please contact: sustainability.metsaboard@metsagroup.com