Environmental & Health Data Sheet

Self-declaration according to ISO 14021

The medium density fibre board is a board-shaped wood based material with reduced formaldehyde content. Due to its homogeneous structure, the MDF board can be milled three-dimensionally and then painted or faced with a laminate or foil. It is predominantly used coated and as furniture board.

Raw Materials & Primary Products

Wood origin

Our plants are certified according to the standard ISO 38200:2018. On request and in agreement with your contact person at the sales department, our products can be declared on our sales documents also with other certification claims, depending on the availability at the production site. Please inquire availability details from your sales or certificates and an up-to-date list of the regional origin and wood species used in the product, see document available for download at

Manufacturer's Declaration – Timber origins (Pdf)

- Manufacturer Declaration – Sustainable Forestry (Pdf)
- Certificate ISO 38200:2018 (Pdf)
- Further 3rd party certificates of sustainable wood procurement (Pdf) (Pdf)

Renewable content

	Renewable content	Fossil-based content
	87 %	13 %

Average renewable resource content by dry weight, in relation to all constituent materials (incl. wood, glue, resin and others). Figures may vary between thicknesses.

Recycled content

	Virgin material	Co-products	Pre-consumer recycling material	Post-consumer recycling material
	34 %	66 %	0 %	0 %

Average recycling content by dry weight, in relation to all constituent materials (incl. wood, glue, resin and others). Figures may vary between thicknesses.

Carbon Footprint

	Global warming potential
1 m^3	-669.0 kg CO_2-equivalent

A negative amount indicates that carbon is stored in the product. Data on carbon storage in products (carbon footprint) is taken from the Life Cycle Assessment (LCA) in the Environmental Product Declaration (EPD). GWP 100 (global warming potential over 100 years), cradle-to-gate.

Constituent materials

This is a composite wood based, UMF- and UF-bonded panel.The table below contains 99.9% of the primary products, measured by weight. Proportions may vary between individual product thicknesses. Listed is the average across all thicknesses in one production year. All chemicals have been evaluated and are disclosed down to 1000 ppm.

Proportion		Function	Composition/ *Add. info*
87	%	Dry wood fibres	Industrial round wood, Saw mill by-products
11	%	Glue	Mix of Urea-Formaldehyde Glue (UF) and Urea-Melamine-Formaldehyde Glue (UMF) Melamine-Urea-Formaldehyde Glue (MUF) *During the pressing process, the aminoplastic adhesive hardens fully. Under normal conditions , it is bound to the wood and chemically stable*
< 1	%	Formaldehyde scavenger	Technical Urea
< 0.5	%	Hydrophobing agent	Paraffine wax emulsion

Manufacturing

Production plants & their certifications

The product is manufactured at the following locations. You find the plant certifications available for download at . For production plant´s address kindly see footnotes at the end of this document.

Plant [i]	Certifications [ii] obtained by this plant			
	Quality	Environment	Energy	Wood origin
Brilon, D	ISO 9001	ISO 14001	ISO 50001	ISO 32800
Gagarin, RU	ISO 9001	–	–	ISO 32800

Processing

Safety

This product is not hazardous in the form in which it is shipped by the manufacturer. Downstream activities (e.g. grinding, sanding, cutting or pulverizing) may generate wood dust, which is hazardous. Wear a respiratory mask if using hand tools without a dust extraction device. Observe all liability insurance association regulations for commercial processing operations (e.g. safety goggles).

Technical data

See Technical Datasheets available at the product download area

Use

On request the products can be labelled with a certification claim according to:

- ISO 38200:2018
- Further 3rd party certificates of sustainable wood procurement

To download certificates, see environmental downloads at and product categorys downloads.

Product emissions & Health aspects

Natural wood constituents may be released in small quantities. Minor amounts of formaldehyde can be detected. During the manufacturing processes, heat and pressure is applied in a short cyclepress. All resins cure completely into a solid material. In the use phase, the product is chemically stable under normal conditions. There are no known health hazards or health effects to be expected under normal conditions, when the product is used as intended. The following table contains an overview of requirements, on which the product has been tested by an independent third party and fulfills the emission requirements. See Annex for limit values and further details.

Substance / indicator	Product has been tested and fulfils emission requirement	Requirement	Requirement details [iii]
Formaldehyde	✓	E1	Formaldehyde class E1, according to EN DIN EN 16516, external testing
Formaldehyde	✓	E1 DE 2020 ≙ E1E05	German ChemVerbotsVO Formaldehyde class E1 from 1.1.2020, external testing
Formaldehyde	✓	TSCA	U.S. Toxic Substances Control Act, external testing (core board)
Formaldehyde	✓	CARB P2	California's Composite Wood Products Regulation California's

End of life – Waste treatment

Reuse

During remodeling or at the end of the utilization phase of a building, the product can easily be separated and used again for the same applications, if selective deconstruction is practiced. This is only possible if the product has not been bonded over its entire surface.

Recycling – Material use

The use of post-consumer MDF as a raw material for the production of new MDF boards on large scale is technical not feasible, yet. MDF core boards can be tolerated in small quantities in the waste wood stream, but cannot be used as the sole source for the production of new chipboards.

Incineration – Energetic use

After its utilization phase, the product should be separated and routed to an energetic recovery, due to its high calorific value of approx. 18.5 MJ/kg. Upon incineration, kindly observe all locally applicable legal requirements for the correct dimensions, required filter technologies, operating conditions, and legal permissions for burning wood-based panels/chipboards.

Waste code according to European Waste Catalogue, depending on origin of the waste:

- 17 02 01 Construction & Demolition Waste Wood or
- 03 01 05 sawdust, shavings, cuttings, wood, particle board and veneer not containing hazardous substances

The product is not classified as hazardous waste. Used can be classified as glued waste wood without halogenated compounds in the lamination layer and without wood preservatives.

See also document available for download at

- Manufacturer's Declaration – Wood preservatives (Pdf)
- Manufacturer's Declaration – Halogenated organic compounds (Pdf)

Environmental life cycle assessment

The product has a verified Environmental Product Declaration (EPD) according to ISO 14025 and EN 15804.

- available for download at

Compliance with LEED v4

This is compliant with the prerequisites for use in LEED certified buildings outside the U.S. Beyond that the usage of a contributes to gather additional points within the LEED scoring system. The following table shows all LEED credits which are applicable to the usage of our product. As the actually achievable number of points depends on the attributes of all used materials in the LEED building project and further actions by the constructor, we cannot guarantee to obtain the maximum score. For full requirement terms see LEED credit library

Projects outside U.S.

LEED v4 Requirements for Building Design + Construction (BD+C) New Construction, Core and Shell, Schools, Retail, Healthcare, Data Centers, Hospitality, Warehouses and Distribution Centers **LEED v4 Requirements for Interior Design + Construction (ID+C)** Commercial Interiors, Retail, Hospitality			**Product contributions**
Chapter	**Requirement summary**	**Maximum Points**	
Material and Resources	Building Product Disclosure and Optimization - Environmental Product Declarations Option 1. Environmental Product Declaration (EPD)	1 Point	This product has a verified Environmental Product Declaration (EPD) according to ISO 14025 and EN 15804. See ▪ Environmental Product Declaration (EPD) MDF raw boards (Pdf)
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 1:.Raw material source and extraction reporting Third-party verified corporate sustainability reports (CSR) according to an accepted framework.	2 Points	An annual Sustainability report is published in accordance with the GRI standards: "Core" option, and is audited by an independent party. See ▪ Sustainability report (Pdf) .
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 2.3: Wood products must be certified by the Forest Stewardship Council® (FSC®) or USGBC-approved equivalent.		Yes, the product can be purchased in 3rd party certified qualities **on request**. Use delivery receipt as evidence document. See also chapter "Wood origin" of this document.
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 2.5: Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content	*1 Point*	*As sawmill by-products are not defined as recycled material according to LEED, this product does not contain any recycled material. See "Constituent materials" section above to obtain further information.*
Material and Resources	Building Product Disclosure and Optimization - Material Ingredients Option 1: Declare.	1 Point	The manufacturer has screened the product to at least 1,000 ppm and has provided a publicly available inventory. See "Constituent materials" section above to obtain further information.
Indoor Environmental Quality	Low-emitting Materials- VOC emissions evaluation (product categories ceilings, walls, acoustic insulation only) Product complies with the LCI values of the German AgBB Testing and Evaluation Scheme	3 Points	No general documentation of VOC emissions available for. If the product is counted as ceiling, wall, or acoustic insulation in your project, please ask your sales contact for an alternative product to meet this criterion. **For other categories of use ,no VOC test is required.**
Indoor Environmental Quality	Low-emitting Materials- Formaldehyde emissions evaluation For projects **outside the U.S.**., composite wood must be documented not to exceed a concentration limit of 0.05 ppm of formaldehyde.		Product is tested per EN 717-1:2014 for formaldehyde emissions and complies with emissions class E1 DE 2020.Please get in touch with your EGGER sales contact or distributor, who are happy to forward the inquiry to get Formaldehyde test report (Pdf).

Projects inside U.S.

Please note that formaldehyde emission requirements in LEED v4 are deviating for projects **inside the U.S.**

LEED v4 Requirements for Building Design + Construction (BD+C) New Construction, Core and Shell, Schools, Retail, Healthcare, Data Centers, Hospitality, Warehouses and Distribution Centers **LEED v4 Requirements for Interior Design + Construction (ID+C)** Commercial Interiors, Retail, Hospitality			**Product contributions**
Chapter	**Requirement summary**	**Maximum Points**	
Material and Resources	Building Product Disclosure and Optimization - Environmental Product Declarations Option 1. Environmental Product Declaration (EPD)	1 Point	This product has a verified Environmental Product Declaration (EPD) according to ISO 14025 and EN 15804. See ▪ Environmental Product Declaration (EPD) MDF raw boards (Pdf)
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 1:.Raw material source and extraction reporting Third-party verified corporate sustainability reports (CSR) according to an accepted framework.	2 Point	An annual Sustainability report is published in accordance with the GRI standards: "Core" option, and is audited by an independent party. See ▪ Sustainability report (Pdf)
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 2.3: Wood products must be certified by the Forest Stewardship Council® (FSC®) or USGBC-approved equivalent.		Yes, the product can be purchased in 3rd party certified qualities **on request**. Use delivery receipt as evidence document. See also chapter "Wood origin" of this document.
Material and Resources	Building Product Disclosure and Optimization - Sourcing of Raw Materials Option 2.5: Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content, based on cost.	*1 Point*	*As sawmill by-products are not defined as recycled material according to LEED, this product does not contain any recycled material. See "Constituent materials" section above to obtain further information.*
Material and Resources	Building Product Disclosure and Optimization - Material Ingredients Option 1: Declare.	1 Point	The manufacturer has screened the product to at least 1,000 ppm and has provided a publicly available inventory. See "Constituent materials" section above to obtain further information.
Indoor Environmental Quality	Low-emitting Materials- Formaldehyde emissions evaluation: Composite wood must be documented to have low formaldehyde emissions that meet the requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.		*The product does not fulfil ULEF requirements. Glue on a formaldehyde basis is used as a binding agent.*

Compliance with WELL Building Standard v2™

is compliant with the preconditions for use in WELL v2™ certified buildings. Beyond that the usage of this product may contribute to gather additional points within the WELL scoring system. The following table shows all WELL features which are applicable to the usage of our product. *Requirements given in italics are currently not met by the product.* As the actually achievable number of points depends on the attributes of all used materials in the WELL building project and further actions by the constructor, we cannot guarantee to obtain the maximum score. For full requirement terms see WELL feature library at

Requirements			Product contributions
Chapter	**Requirement summary**	**Maximum Points**	
X01 Material Precautions	Restrict asbestos, mercury and lead.	Precondition	The product complies with this precautions. See available for download at www.egger.com/environment. Please get in touch with the product sustainability & compliance team at to get further declarations concerning the non-use of mercury and lead .
X05 Enhanced Material Restrictions	**Part 2a Select Compliant Architectural and Interior Products:** Flooring products, ceiling and wall panels contain halogenated flame retardants (HFR) at less than 100 ppm.	1 Point	The product complies with this requirement. No halogenated flame retardants (HFR) are used in this product. See "Constituent materials" section above for your documentation. Please get in touch with the product sustainability & compliance team at to get manufacturer's declaration on the use of halogenated compounds (Pdf).
X05 Enhanced Material Restrictions	**Part 2a Select Compliant Architectural and Interior Products:** Newly installed floorings and furniture contain Orthophthalates at less than 100 ppm.		In general, no softening agents are used in the production of fibre boards, in particular no phthalates. See "Constituent materials" section above for your documentation.
X06 Volatile Compound reduction	**Part 2a Restrict VOC Emissions from Furniture, Architectural and Interior Products:** Furniture and wall panels tested per AgBB or CDPH method and VOC emission threshold established.	2 Points	No general documentation of VOC emissions available for . If the product is counted as ceiling, wall, or acoustic insulation in your project, please ask your sales contact for an alternative product to meet this criterion. Otherwise, no VOC test is required.
X06 Volatile Compound reduction	**Part 2c2 Restrict VOC Emissions from Furniture, Architectural and Interior Products:** Composite wood panels meet the formaldehyde standards European E1, TSCA, F*** or LEED v4.1		Product is tested per EN 717-1:2014 for formaldehyde emissions and complies with emissions class E1 DE 2020. See "Product emissions & Health aspects" section above for further information. Please get in touch with your sales contact or distributor, who are happy to forward the inquiry to get Formaldehyde test report (Pdf).
X07 Material Transparency	**Part 1: Select Products with Disclosed Ingredients:** Promote ingredient disclosure with ingredients identified and disclosed to 1,000 ppm.	1 Point	The product is screened to at least 1,000 ppm and the manufacturer has provided a publicly available inventory within this document. See "Constituent materials" section above for your documentation.
X08 Materials Optimization	**Part 1 Select Material with Enhanced Chemical Restrictions**: Newly installed furnishings, built-in furniture, interior finishes and finish materials comply with some combination of the listed programs (e.g. Living Building Challenge Red List Free)	*2 Points*	*Currently our product does not participate in any of the listed programs. It does not contribute to achieve points for this requirement.*
X08 Materials Optimization	**Part 2 Select Optimized Products:** Product is certrified by one of the listed programs (e.g. Cradle to Cradle)		*Currently our product does not participate in any of the listed programs. It does not contribute to achieve points for this requirement.*

Compliance with Nordic Swan Ecolabel

Furniture and Fitments, version 4.15

If you are planning to certify a furniture product with the Nordic Swan Ecolabel, we as your supplier are happy to provide you with the required evidence documents, as shown below. From our current knowledge, all other requirements beyond this list are not applicable to this product from the raw material supplier. When in doubt, please always take the original criteria version as a reference at the official Nordic Swan website.

Requirements		Product contributions
Chapter	**Requirement summary**	
R11 Origin and traceability	Written procedure ensuring traceability to the origin of the raw materials	The product complies with the requirement. The following evidence document can be used: ▪ Certificate ISO 38200:2018 (Pdf) .
R12 Chemical products and additives	Chemical products and additives/constituent substances used in the production of wood-based panels must satisfy the requirements of R3, R4 and R5 in Chapter 2.1.	The product complies with the requirement. Please get in touch with the product sustainability & compliance team at to get Form 2a documents and safety data sheets for each chemical product and additive/ constituent substance.
R13 Formaldehyde	Average emissions of formaldehyde must not exceed 0.07 mg/m³ air as determined by the current version of EN 717-1	Product is tested per EN 717-1:2014 for formaldehyde emissions and complies with emissions class E1 DE 2020. See “Product emissions & Health aspects” section above for further information. Please get in touch with your sales contact or distributor, who are happy to forward the inquiry to get Formaldehyde test report (Pdf).

Compliance with other labels & regulations

Additional information in the form of manufacturer declarations, EPDs and brochures is available at

Your label or regulation is missing? product sustainability & compliance team is happy to support you with suitable information on the requirements. Please get in touch with or contact your sales contact or distributor, who are happy to forward the inquiry.

Footnotes

i

Production plant	Address

Product Certifications	
ISO 38200:2018	ISO 38200:2018 Chain of Custody of wood and wood-based products

iii

Substance	Requirement	Norm reference	Limit value	Testing method
Formaldehyde	E1	Chemicals Act (Chemicals Prohibition Ordinance; German: Chemikalien-Verbotsverordnung, ChemVerbotsV), Appendix 1 to Section 3, Entry 1: “Formaldehyde” Clause 2(1)	0.1 ppm	DIN EN 16516
Formaldehyde	E1 DE 2020 ≙ E1E05	Chemicals Act (Chemicals Prohibition Ordinance; German: Chemikalien-Verbotsverordnung, ChemVerbotsV), Appendix 1 to Section 3, Entry 1: “Formaldehyde” Clause 2(1)	0.1 ppm [test result x factor 2]	DIN EN 717-1
Formaldehyde	TSCA	U.S. Toxic Substances Control Act (TSCA), requirements of EPA TSCA Title VI – § 770.10 b 1-4	0.09 ppm	ASTM D6007-14
Formaldehyde	CARB P2	Final Regulation Order §93120 , title 17, California Code of Regulations: “Airborne Measure to Reduce Formaldehyde Emissiones from Composite Wood Products	0.09 ppm	ASTM D6007-14