

Environmental & Health Datasheet

Eurodekor EAC E1 EPF-S CARB2/TSCA P2

Eurodekor EAC E1 EPF-S CARB2/TSCA P2 is a melamine-faced chipboard with reduced formaldehyde content for numerous applications in furniture and interior design.

Manufacturing

Production plants & their certification

Eurodekor EAC E1 EPF-S CARB2/TSCA P2 is manufactured at multiple locations. The production plants are listed below. For address and certification details, kindly see footnotes at the end of this document.

Plant ⁱ	Certifications obtained by this plant ⁱⁱ						Add. info
	ISO 9001	ISO 14001	ISO 50001	EMAS	FSC [®]	PEFC	
Brilon	✓	✓	✓	-	✓	✓	
Radauti	✓	✓	-	-	✓	✓	
Rambervillers	✓	✓	-	-	✓	✓	
St. Johann in Tirol	✓	✓	-	-	✓	✓	
Unterradlberg	✓	✓	-	✓	✓	✓	main overseas export plant for this product

Constituent materials

All chemicals have been evaluated and are disclosed down to 1000ppm. This means that the table below contains 99.9% of the raw materials / primary products, measured by weight. Kindly note that proportions may vary between individual product thicknesses. Listed is the average across all thicknesses and coating types in one production year.

%	Function	Material	Origin / Add. info	renewable	recycled
3	Coating	Impregnated decorative paper	30% Decor paper (virgin cellulose, print colour)	✓	-
			70% Melamine-Formaldehyde resin <i>during the pressing process, the aminoplastic resin hardens fully into a hard surface. Under normal conditions, it is bound to the paper and chemically stable</i>	-	-
82	Wood	Wood chips	45 % Pre-consumer recycling wood (saw mill by-products)	✓	✓
			30 % Post-consumer recycling wood	✓	✓
			25 % Industrial round wood	✓	-
13	Glue	Mix of Urea-Formaldehyde Glue (UF) and Urea-Melamine-Formaldehyde Glue (UMF)	<i>during the pressing process, the aminoplastic adhesive hardens fully. Under normal conditions, it is bound to the wood and chemically stable</i>	-	-
1	Hydrophobing agent	Paraffine wax emulsion		-	-
< 1	Hardener	Ammonium nitrate / Ammonium sulphate	<i>chloride-free</i>	-	-
< 1	Glue	Isocyanate (MDI)		-	-

Responsible	Editor	Valid until	Revision	Classification	Page
Riepertinger Manfred	Bühner Moritz	31.08.2018	1	Public	1 von 8

Wood origin

For an up-to-date list of the regional origin and wood species used in the board, kindly see our declaration

- „Manufacturer's Declaration – Timber origins (PDF)“ available for download at www.egger.com/environment

Product certification

On special order, the product can be certified according to FSC® or PEFC. Please get in touch with your EGGER sales contact or local distributor.

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 properties

For additional properties kindly see

- Technical Datasheet available for download at www.egger.com

Use

Reaction to fire

Norm	Fire class	
EN 13986, Tab. 8	D-s2,d0	≥ 9 mm (0.35") (raw density 5 600 kg/m³)

Product emissions & health aspects

Natural wood constituents may be released in small quantities. Minor amounts of formaldehyde can be detected. There are no known health hazards or 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 successfully.

Substance	Emission class / Requirement	Product has been tested and fulfils requirements?	Testing information / Supervisor ⁱⁱ
Formaldehyde	CARB 2	✓	regular internal testing & external monitoring
Formaldehyde	TSCA Title VI	✓	regular internal testing & external monitoring
Formaldehyde	E1	✓	regular internal testing & external monitoring
Formaldehyde	IOS-MAT 0003	✓	see EPF-S

Formaldehyde	EPF-S	✓	regular internal testing & external monitoring
--------------	-------	---	--

End of life – waste treatment

Reuse

During remodelling or at the end of the utilisation 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

Leftovers which arise on the construction site as well as those from deconstruction measures should primarily be routed to a material utilisation stream (use as post-consumer recycling material). The product can be recycled and used for the same purpose, since waste wood from furniture is a secondary material already used in the production of new chipboards.

Disposal

The product is not classified as hazardous waste. If material use is not possible, energetic utilisation is the second-best option. Kindly get in touch with your local authorities to inquire the correct dimensions, required filter technologies, and operating conditions for burning wood-based panels/chipboards. Landfilling is the least-favorable option.

Product	Eurodekor
Waste code according to European Waste Catalogue	170201/030105
Calorific value	16.7 MJ/kg

Environmental impact, cradle-to-gate

The product has a verified Environmental Product Declaration according to ISO 14025 and EN 15804

- EPD Eurodekor MFC (PDF) available for download at www.egger.com/environment



Compliance with LEED 2009

For a listing of all LEED 2009 credits, kindly consult the USGBC website at <http://www.usgbc.org/credits/new-construction/v2009>. When in doubt, please always take the original version as a reference. The following information is provided as a guideline only, not as a guarantee to score credits.

MRc4 - Recycled Content

Product	Virgin material	Preconsumer recycling material	Postconsumer recycling material
Eurodekor	39%	37%	25%

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

MRc5 - Regional Materials

The product contains mostly wood. A large proportion of this wood is sourced regionally, within a radius of 150km around the production plant.

For wood origin, kindly see “Wood origin” above. To find out the production plant for your delivery, please get in touch with your EGGER sales contact or distributor. Exact addresses are listed in the annex of this document.

MRc7 - Certified Wood

EGGER as a company, and all EGGER production plants, are FSC® certified. However, due to limited wood availability in some countries, EGGER products are certified only on request. Kindly verify with your EGGER sales contact or distributor that your desired product is available FSC®-certified, and that your delivery is processed accordingly.

IEQc4.4 - Low-Emitting Materials (Composite Wood and Agrifiber Products)

The product is covered by LEED’s “composite wood and agrifiber products” definition.

The applicability of this credit depends on the product’s area of application:

- A. There are restrictions for “base building elements”:
 “Composite wood and agrifiber products used on the interior of the building (i.e., inside the weatherproofing system) must contain no added urea-formaldehyde resins. Laminating adhesives used to fabricate on-site and shop-applied composite wood and agrifiber assemblies must not contain added urea-formaldehyde resins.” (..)
- B. However, there are no restrictions for “fixtures, furniture and equipment”:
 “Materials considered fixtures, furniture and equipment (FF&E) are not considered base building elements and are not included.”

A. When used in “base building elements”, the product cannot obtain credits for IEQc4.4. It is based on a “urea-formaldehyde” glue system. We recommend using our ULEF-certified board instead, called “EurodekorJP F0,3 (F****)”, which can obtain credits.

B. When used as furniture, the LEED credit IEQc4.4 is not applicable for the product.

From our current knowledge, all other LEED 2009 credit points are not applicable for the product. If you still have questions on using the product for a LEED-certified building, kindly get in touch with environment@egger.com or contact your EGGER sales contact / distributor.

Compliance with LEED v4

For a listing of all LEED v4 credits, kindly consult the USGBC website at <http://www.usgbc.org/credits/new-construction/v4>. When in doubt, please always take the original version as a reference. The following information is provided as a guideline only, not as a guarantee to score credits.

MRc1: Building life-cycle impact reduction

Option 4

For a “Whole-Building Life-Cycle Assessment”, data for the product is readily available in its EPD.

- A. You can either manually copy the LCA data from the EPD’s PDF document
 EPD download at http://www.egger.com/shop/en_GB/about-us/environment/epd
 or
- B. use the product’s GaBi dataset
 or
- C. extract the data from public databases such as Oekobau.dat

MRc2: Building product disclosure and optimization - environmental product declarations

Option 1, type C

All EGGER main products have their proper EPD, which is a product-specific, third-party validated Type III declaration based on ISO 14025 and EN 15804. In LEED v4 MRc2, products with this type of EPD count as “one whole product”.

The product’s EPD is available for download

- A. at www.egger.com, http://www.egger.com/shop/en_GB/about-us/environment/epd
- B. or at the “Institute for Construction & Environment”, www.ibu-epd.com



MRc3: Building product disclosure and optimization - sourcing of raw materials

Option 1

For the principal raw material wood, EGGER is committed “to long-term ecologically responsible land use”, “to reducing environmental harms from extraction and/or manufacturing processes”, and to “meeting applicable standards or programs voluntarily that address responsible sourcing criteria”. For all these points, documentation is available to the public at http://www.egger.com/shop/en_GB/about-us/environment/sustainable-forestry:

- Principles for Uncertified Wood Sources (PDF)
- Manufacturer’s Declaration – Timber origins (PDF)
- FSC®-Certificate EGGER Group (PDF)
- PEFC Certificate EGGER Group (PDF)

With these “self-declared reports”, half a credit can be obtained.

Option 2

Wood products

For “leadership extraction practices” of wood, there are two possibilities:

- A. FSC certification
“Wood products must be certified by the Forest Stewardship Council or USGBC-approved equivalent.”
- B. PEFC certification, via ASTM D7612-10 (as specified in [pilot credit MRpc102 - Legal Wood](#))
“Wood products from Certified Sources as defined by ASTM D7612-10 are valued at 100% of their cost for purposes of credit achievement calculation if the following two conditions are also met:
 - a. 100% of all wood is verified to be from Legal (non-controversial) Sources as defined by ASTM D7612-10. These components include at a minimum, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes.
and
 - b. 70% (based on cost) of all wood used on the project is from Responsible Sources as defined by ASTM D7612-10. These components include at a minimum, structural framing and general dimensional framing, flooring, sub-flooring, wood doors and finishes.”

EGGER as a company, and all EGGER production plants, are both FSC® and PEFC certified. Due to limited wood availability in some countries, EGGER products are certified only on request. Kindly verify with your EGGER sales contact or distributor, which type of certification (FSC® or PEFC) is available and which order you would like to place.

Recycled content

Building products that contain recycled material support scoring credits for “leadership extraction practices” in LEED v4. It is defined as follows: “Recycled content is the sum of postconsumer recycled content plus one-half the preconsumer recycled content (...)”

In order to calculate your recycling quota, please find the required information in the following table:

Product	Virgin material	Preconsumer recycling material	Postconsumer recycling material
Eurodekor	39%	37%	25%

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

MRc4: Building product disclosure and optimization – Material ingredients

Option 1. material ingredient reporting - Declare

This credit relates to the disclosure of a product’s ingredients. Kindly see “Constituent materials” section above to obtain this information.

IEQc2: Low-emitting materials

This credit relates to building product emissions into the indoor air. It makes two differentiations. One per location, and the other per product group. The location is divided into two spheres: projects located within the United States have different criteria than projects located in the rest of the world. Additionally, the requirements for flooring (“General Emissions Evaluation”) are different from those for wood-based products (“Composite Wood Evaluation”).

USGBC has published a table listing all accepted emission test methods more comprehensively. The table is available online:

- “LEED v4 EQ Credit Low-Emitting Materials Third Party Certifications and Labels”:
<http://www.usgbc.org/sites/default/files/Low%20Emitting%20Third%20Party%20Certifications%20and%20Labels%20August%202016.pdf>

The product is covered by LEED’s “composite wood” definition. For the indoor air credit, the “Composite Wood Evaluation” applies.

Projects in the US

The indoor air quality credit specifies: “Composite wood (...) must be documented to have low formaldehyde emissions that meet the California Air Resources Board ATCM for formaldehyde requirements for ultra-low-emitting formaldehyde (ULEF) resins or no added formaldehyde resins.”

The product cannot obtain credits for IEQc2. It is based on a “urea-formaldehyde” glue system.

We recommend using our ULEF-certified board instead, called “EurodekorJP F0,3 (F****)”, which *can* obtain credits.

Projects in the rest of the world (outside the US)

For wood-based boards used in projects located outside the United States, LEED v4 specifies:

“(...) composite wood must be documented not to exceed a concentration limit of 0.05 ppm of formaldehyde (0.06 mg/m²-h when expressed as emission rate) as tested following either EN-717-1:2004, following ISO 16000-3: 2010, ISO 16000-6: 2011, ISO 16000-9: 2006, ISO 16000-11:2006, or following CEN/TS 16516: 2013 either in conjunction with AgBB or with Belgian or French legislation on VOC emission class labeling.”

In addition to the test methods accepted in the US, compliance can also be demonstrated by matching the specifications of:

- German Blue Angel RAL UZ 76 (Apr 2011)
or
- French VOC emission class A or A+
or
- Finnish emission class M1

The product fulfils this requirement, it emits less than 0,05ppm of formaldehyde when tested according to EN 717-1. It also fulfils French emission class A. Kindly ask your EGGER sales contact for an up-to-date test report.

From our current knowledge, all other LEED v4 credit points are not applicable for the product. If you still have questions on using the product for a LEED-certified building, kindly get in touch with environment@egger.com or contact your EGGER sales contact / distributor.

Compliance with other labels & regulations

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

- www.egger.com/environment

Your label or regulation is missing? The EGGER product sustainability & compliance team is happy to support you with suitable information on the requirements. Please get in touch with

- environment@egger.com

or contact your EGGER sales contact or distributor, who are happy to forward the inquiry.

Production plant	Address
Brilon	EGGER Holzwerkstoffe Brilon GmbH & Co. KG Im Kissen 19 59929 Brilon Germany
Radauti	SC EGGER România SRL Str. Austriei 2 PO Box 38 725400 Radauti Romania
Rambervillers	EGGER Panneaux & Décors Usine de Rambervillers ZI Blanchifontaine 88700 Rambervillers France
St. Johann in Tirol	FRITZ EGGER GmbH & Co. OG Holzwerkstoffe Weiberndorf 20 6380 St. Johann in Tirol Austria
Unterradlberg	FRITZ EGGER GmbH & Co. OG Holzwerkstoffe Tiroler Straße 16 3105 Unterradlberg Austria

ii

Management Systems / Certifications		Certification body, registration no.
ISO 9001	Quality Management System	Quality Austria, AT-00184/0
ISO 14001	Environmental Management System	Quality Austria, AT-01128/0
ISO 50001	Energy Management System	Germany: TÜV Nord, 44 764 141565 UK: Exova BM TRADA, 009, 010
EMAS	Environmental Management System	AT-000568
FSC®	Chain-of-Custody for Responsible Forestry	SGS Société Générale de Surveillance SA, SGSCH-COC-110039, SGSCH-CW-110039
PEFC	Chain-of-Custody for Sustainable Forestry	SGS Société Générale de Surveillance SA, CH17/0386

Certificates are available for download at www.egger.com/environment

iii

Substance	Emission class	Limit value	Norm	Supervision institute, contract no.
Formaldehyde	CARB 2	0,09ppm	ASTM E1333	WKI, 722-2008-11-TPC-4
Formaldehyde	TSCA Title VI	0,09ppm	ASTM E1333	WKI, 0104-2017-07-TPC-4
Formaldehyde	E1	0,1ppm	EN 717-1	WKI, 0493
Formaldehyde	IOS-MAT 0003 (including EPF-S)	4.0mg/100g dry board	EN 120	WKI, 0493

Kindly note that these emission classes relate to raw boards. Since they are based on different test procedures, their limit values are not directly comparable. The melamine-faced surface of Eurodekor is diffusion-resistant, which reduces emissions when compared to raw boards. When measured according to EN 717-1, Eurodekor emission level is reduced to < 0,03ppm. On the other hand, when applying large-scale drilling and slotting, like in acoustic panels, emission levels increase.