



# Environmental Product Declaration

according to ISO 14025









Declaration Number  
EPD-EHW-2008311-E

Institut Bauen und Umwelt e.V.  
[www.bau-umwelt.com](http://www.bau-umwelt.com)

**EGGER**  
**Raw and Melamine faced**  
**Medium and High Density**  
**Fibreboard**



Institut Bauen  
und Umwelt e.V.

	<p style="text-align: center;"><b>Summary</b> <b>Umwelt- Produktdeklaration</b> <i>Environmental Product-Declaration</i></p>
<p><b>Institut Bauen und Umwelt e.V.</b> <a href="http://www.bau-umwelt.com">www.bau-umwelt.com</a></p> 	<p style="text-align: right;">Program holder</p>
<p><b>Fritz EGGER GmbH &amp; Co.</b> Company Head Office Weiberndorf 20 A – 6380 St. Johann in Tyrol</p> 	<p style="text-align: right;">Declaration holder</p>
<p>EPD-EHW-2008311-E</p>	<p style="text-align: right;">Declaration number</p>
<p><b>Egger raw / Melamine faced medium and high-density fibreboard</b></p> <p>This declaration is an environmental product declaration according to ISO 14025 and describes the environmental rating of the building products listed herein. It is intended to further the development of environmentally compatible and sustainable construction methods. All relevant environmental data is disclosed in this validated declaration. The declaration is based on the PCR document "Wood-based materials", year 2009-01.</p>	<p style="text-align: right;">Declared building products</p>
<p>This validated declaration authorises the holder to bear the official stamp of the Institut Bauen und Umwelt. It only applies to the listed products for one year from the date of issue. The declaration holder is liable for the information, evidence and verifications on which the declaration is based.</p>	<p style="text-align: right;">Validity</p>
<p>The declaration is complete and contains in its full form:</p> <ul style="list-style-type: none"> <li>- Product definition and physical building-related data</li> <li>- details of the basic materials and origin</li> <li>- description of how the product is manufactured</li> <li>- instructions on how to process the product</li> <li>- data on usage condition, unusual effects, and end of life phase</li> <li>- life cycle assessment results</li> <li>- evidence, verifications, and tests</li> </ul>	<p style="text-align: right;">Content of the declaration</p>
<p>25. February 2009</p>	<p style="text-align: right;">Date of issue</p>
<div style="border: 1px solid black; padding: 5px;">  </div> <p>Prof. Dr.-Ing. Horst J. Bossenmayer (President of the Institut Bauen und Umwelt)</p>	<p style="text-align: right;">Signatures</p>
<p>This declaration and the rules on which it is based have been examined by an independent expert committee (SVA) in accordance with ISO 14025.</p>	<p style="text-align: right;">Verification of the declaration</p>
<div style="border: 1px solid black; padding: 5px;">  </div> <p>Prof. Dr.-Ing. Hans-Wolf Reinhardt (chairman of the expert committee)</p>	<div style="border: 1px solid black; padding: 5px;">  </div> <p>Dr. Frank Werner (tester appointed by the expert committee)</p> <p style="text-align: right;">Signatures</p>



**Summary**  
**Umwelt-**  
**Produktdeklaration**  
*Environmental*  
*Product-Declaration*

Raw / Melamine faced MDF boards are panel-shaped materials according to EN 622-5 and EN 14322. The boards of material are primarily used in Melamine faced form and as furniture panels. They are used in low-front panel applications in kitchens, for example. The decorative design is achieved through the use of printed decorative paper. At the same time, a corresponding feel can also be applied to the surface during pressing.

**Product description**

Melamine faced MDF boards are used in interior applications for higher-quality purposes in furniture manufacturing. Due to their homogenous composition, MDF boards can be milled in three dimensions and then either coated or laminated with a film in a membrane press. Boards manufactured in this way are frequently used as front panels in premium kitchens.

**Applications**

The **Life Cycle Assessment (LCA)** was performed according to DIN ISO 14040 following the requirements of the IBU guideline for type III declarations. Both specific data from the reviewed products and data from the "GaBi 4" database were used. The life cycle assessment encompasses the production of raw materials and energy, transportation of raw materials, the actual manufacturing phase as well as the End of Life in a biomass generating plant with energy utilisation. One each of raw 1 m<sup>3</sup> HDF and MDF and 1 m<sup>2</sup> of Melamine faced MDF with a thickness of 9.3 mm, are declared.

**Scope of the LCA**

MDF boards (per m <sup>3</sup> )				
Evaluation variable	Unit per m <sup>3</sup>	Total	Manufacturing	End of Life
Primary energy, non renew able	[MJ]	-5179	8734	-13913
Primary energy, renew able	[MJ]	11496	11653	-157,2
Global warming potential (GWP 100)	[kg CO <sub>2</sub> eqv.]	-159,7	-504,6	345,0
Ozone depletion potential (ODP)	[kg R11 eqv.]	2,65E-05	5,96E-05	-3,30E-05
Acidification potential (AP)	[kg SO <sub>2</sub> eqv.]	2,77E+00	1,72E+00	1,06E+00
Eutrophication potential (EP)	[kg Phosphate eqv.]	6,83E-01	4,79E-01	2,04E-01
Photochemical oxidant formation potential (POFP)	[kg ethylene eqv.]	3,37E-01	3,55E-01	-1,81E-02
HDF boards (per m <sup>3</sup> )				
Evaluation variable	Unit per m <sup>3</sup>	Total	Manufacturing	End of Life
Primary energy, non renew able	[MJ]	-6473	10918	-17391
Primary energy, renew able	[MJ]	14370	14567	-196,5
Global warming potential (GWP 100)	[kg CO <sub>2</sub> eqv.]	-199,6	-630,8	431,2
Ozone depletion potential (ODP)	[kg R11 eqv.]	3,32E-05	7,45E-05	-4,13E-05
Acidification potential (AP)	[kg SO <sub>2</sub> eqv.]	3,47E+00	2,14E+00	1,32E+00
Eutrophication potential (EP)	[kg Phosphate eqv.]	8,54E-01	5,99E-01	2,55E-01
Photochemical oxidant formation potential (POFP)	[kg ethylene eqv.]	4,21E-01	4,44E-01	-2,27E-02
MDF - Melamine faced boards (per m <sup>2</sup> )				
Evaluation variable	Unit per m <sup>2</sup>	Total	Manufacturing	End of Life
Primary energy, non renew able	[MJ]	-38,3	98,4	-136,7
Primary energy, renew able	[MJ]	108,1	109,6	-1,6
Global warming potential (GWP 100)	[kg CO <sub>2</sub> eqv.]	-0,50	-3,92	3,42
Ozone depletion potential (ODP)	[kg R11 eqv.]	2,70E-07	5,97E-07	-3,27E-07
Acidification potential (AP)	[kg SO <sub>2</sub> eqv.]	2,73E-02	1,78E-02	9,48E-03
Eutrophication potential (EP)	[kg Phosphate eqv.]	6,80E-03	4,94E-03	1,86E-03
Photochemical oxidant formation potential (POFP)	[kg ethylene eqv.]	3,47E-03	3,67E-03	-2,06E-04

**Results of the LCA**

Prepared by: PE INTERNATIONAL, Leinfelden-Echterdingen  
in cooperation with Fritz EGGER GmbH & Co.



In addition, the results of the following tests are shown in the environmental product declaration:

- Formaldehyde according to EN 120 / EN 717-1, testing institute: WKI Fraunhofer Wilhelm-Klauditz-Institute
- Eluate analysis according to EN 71-3, testing institute: MFPA Leipzig GmbH
- EOX (extractable organic halogen compounds) according to DIN 38414-S17, testing institute: MFPA Leipzig GmbH
- Toxicity of the fire gases according to DIN 53436, testing institute: MFPA Leipzig GmbH
- PCP/Indane according to PA-C-12: 2006-02, testing institute: WKI Fraunhofer Wilhelm-Klauditz-Institute

**Evidence and verifications**



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In the case of a doubt is the original EPD “EPD-EHW-2008311-D”  
applicable.