

REPORT

Contract no: 2024/2017 - RB 26.02.2018
WÖJ/RIK

Customer: FunderMax GmbH
Klagenfurter Straße 87-89
AT-9300 St.Veit/Glan

Subject: 2nd inspection 2017 of the production of fibreboards of the type
"FunderMax Organic Fibre" with respect to their formaldehyde
content and formaldehyde release, respectively
Order number: 4500140108

Date of contract: 31.05.2007 (contract)

Date of sample delivery: 17.11.2017

Date/Period of service: 15.11.2017

Period of validity: 12 months

Pages: 5

Enclosures: --

1. Contract

Based on the contract dating from 31.05.2007 between the company FunderMax GmbH, AT-9300 St. Veit/Glan and Holzforschung Austria an inspection of the production of fibreboards according to ÖNORM EN 622-2 with respect to their formaldehyde content and emission was carried out. The report on hand provides the results of the inspection and of the subsequent laboratory testing.

2. Inspection and testing

The inspection in AT-9300 St.Veit/Glan was performed by Mr. DI B. Kraus (Holzforschung Austria) in the presence of Mr. K. Huber (FunderMax GmbH) on 15.11.2017.

Testing was carried out in the laboratories of Holzforschung Austria in November 2017.

2.1. References

The inspection and tests were performed based on the following references:

- | | |
|----------------------------------|--|
| ÖNORM EN 622-1 | Fibreboards - Specifications - Part 1: General requirements (01.08.2003) |
| ÖNORM EN ISO 12460-3 | Wood-based panels - Determination of formaldehyde release - Part 3: Gas analysis method (15.03.2016) |
| ÖNORM EN ISO 12460-5 | Wood-based panels - Determination of formaldehyde release - Part 5: Extraction method (called the perforator method) (01.04.2016) |
| ÖNORM EN 326-1 | Wood-based panels - Sampling, cutting and inspection - Part 1: Sampling and cutting of test pieces and expression of test results (01.12.2005) |
| ÖNORM EN 326-2 | Wood-based panels - Sampling, cutting and inspection - Part 2: Initial type testing and factory production control (15.09.2014) |
| BGBI. No. 194/1990 | Austrian federal law gazette No. 194/1990 Formaldehyde regulation (10.04.1990) |
| 6. | Regulation decree for the chemicals law: Examination methods to use at the control of formaldehyde decree (13.03.1995) |
| IKEA Specification IOS-MAT-0003: | Formaldehyde requirements of wood-based products (Version: no. AA-10899-11, 16.11.2016) |
| IKEA Specification IOS-TM-0010: | Formaldehyde in wood-based material – test methods. (Version No. AA-325858-2, 13.05.2011) |

Holzforschung Austria Working Directive A 005: Wood based panels - Determination of formaldehyde content - Extraction method called the perforator method

Holzforschung Austria Working Directive A 006: Determination of formaldehyde release by the gas analysis method

Holzforschung Austria Working Directive R 033: Inspection for wood based materials

2.2. Personnel

Contact: Mr. K. Huber

2.3. Factory production control

In accordance with the current technical and normative status quo no formaldehyde testing is carried out as part of the factory production control. As part of the control concerning raw materials and production the addition of substances containing formaldehyde is monitored and thus the potential of the resulting product to emit formaldehyde is checked and documented.

In course of the inspection randomly selected parts of the production of the "FunderMax Organic Fibre" fibreboards were inspected. In addition, the product formulations utilized in the manufacturing of different fibreboard types were viewed and checked with respect to the raw materials used. According to the product formulation the addition of formaldehyde-containing phenolic resin does not exceed 1,5 %. The correct application of all parameters specified in the product formulations was checked during the production process in operation at the time of inspection.

2.4. Sampling and standardised testing

During the inspection, a sample was drawn at random by Mr. DI B. Kraus for testing at Holzforschung Austria taking the additional specification of IKEA IOS-TM-0010 into consideration.

The testing material listed in Tab. 1 arrived at Holzforschung Austria on 17.11.2017. It was stored until testing under the conditions described in IKEA IOS-MAT-0003 (Version No. AA-10899-11).

The determined results are given in Tab. 2 and Tab. 3. The requirements given in section 2.1 are met.

Tab. 1: Testing material

Number	
2024/2017/1	4 sections à 0,25 m ² of an uncoated fibreboard; thickness: 2,4 mm; batch no.: 101998706; date of production: 15.11.2017
2024/2017/2	4 sections à 0,25 m ² of a coated fibreboard; thickness: 4 mm; batch no.: 101980704, date of production: 18.10.2017

Tab. 2: Formaldehyde content according to ÖNORM EN ISO 12460-5 ¹⁾

Number	Single	Mean	Moisture- content u in %	Single ²⁾	Mean	expanded measurement uncertainty in %
	in mg/100 g atro board at m.c.			in mg/100 g atro board corrected to m.c. = 6,5 %		
2024/2017/1	0,1	0,1	0,6	0,3	0,3	± 26
	0,1			0,3		

¹⁾ Test results of the Method are equivalent to ÖNORM EN 120.

²⁾ Recalculated to 6,5 % M.C. in accordance with ÖNORM EN 622-1.

Tab. 3: Formaldehyde-release and moisture content according to ÖNORM EN ISO 12460-3 ³⁾

Number	Single	Mean value (Gas analysis) in mg HCHO/m ² h	Moisture- content u in %	expanded measurement uncertainty in %
	in mg HCHO/m ² h			
2024/2017/2	< 0,1	< 0,1	1,5	± 21
	< 0,1			

³⁾ Test results of the Method are equivalent to ÖNORM EN 717-2.

3. Reclamations listed in previous report

None.

4. Summary of the evaluation

An inspection of the production of fibreboards according to ÖNORM EN 622-2 with respect to the formaldehyde content was performed on 15.11.2017 in the plant of FunderMax GmbH in AT-9300 St.Veit/Glan.

Subsequent testing was performed by Holzforschung Austria in November 2017.

The inspection confirmed that in the production process only minor amounts of formaldehyde-containing resins are used, which are furthermore known to emit only minimal amounts of formaldehyde once curing has occurred. Furthermore, the inspection showed that no modifications of the relevant production parameters (primarily product formulation, raw materials) were implemented since the initial plant inspection.

Thus “FunderMax Organic fibre” fibreboards produced using the current process exhibit a very low potential for emitting formaldehyde similar to that of natural wood. The results of the laboratory testing carried out at Holzforschung Austria confirm the low potential of the product to emit formaldehyde.

During the inspection and subsequent laboratory testing no non-conformities were found. Therefore, the production of “FunderMax Organic fibre” boards meets the requirements of ÖNORM EN 622-1, the Austrian formaldehyde regulation and of IKEA Specification IOS-MAT-0003 (Version No. AA-10899-11) for the formaldehyde emission class E1.

HOLZFORSCHUNG AUSTRIA





DI Bernhard Kraus
Authorised signatory and Technical consultant



DI Franz Neumüller
Technical consultant

Accreditation is given for the following procedures.
It is not allowed to use included accreditation marks for own purposes.

accreditation mark	type of accreditation	procedure/s
	inspection	<ul style="list-style-type: none"> • ÖNORM EN 326-1 • ÖNORM EN 326-2 • ÖNORM EN 622-1 • BGBl. No. 194/1990 • IOS-MAT-0003
	testing	<ul style="list-style-type: none"> • ÖNORM EN 326-1 • ÖNORM EN ISO 12460-3 • ÖNORM EN ISO 12460-5

The results and statements given in this document relate only to the tested materials, the present information and the state of the art at the time of investigation.
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