

REPORT

Contract no.: 1279/2016 - RB 15.11.2016
NEF/MÜJ

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

Subject: 1st Inspection 2016 of melamine faced boards for interior uses of
the type "Star Favorit" and "Star Favorit Superfront" according to
ÖNORM EN 14322

ordernumber: 4500113053

Date of contract: 27.07.2005 (inspection contract)

Date of sample delivery: 25.05.2016

Date/Period of service: 25.05.2016

Period of validity: 18 Months

Pages: 4

Enclosures: 4

1. Contract

On the basis of contract dating from 27.07.2005 between FunderMax GmbH in AT-9300 St. Veit/Glan and Holzforschung Austria an inspection of melamine faced particleboards of the types "Star Favorit" and "Star Favorit Superfront" was carried out. The inspection report on hand provides the results of the plant inspection and of the laboratory testing.

2. Inspection and testing

2.1. References

The tests are performed on the basis of the following references:

- ÖNORM EN 14322 Wood-based panels - Melamine faced boards for interior uses - Definition, requirements and classification (01.06.2004)
- ÖNORM EN 14323 Wood-based panels - Melamine faced boards for interior uses - Test methods (01.06.2004)
- 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: Quality control in production (15.09.2014)
- ÖNORM EN 311 Wood-based panels - Surface soundness - Test method (01.08.2002)
- ÖNORM EN 438-2 Decorative high-pressure laminates (HPL) - Sheets based on thermosetting resins - Determination of properties (01.05.2005)
- ÖNORM EN 120 Wood-based panels - Determination of formaldehyde content - Extraction method called the perforator method (01.02.1993)
- ÖNORM EN 717-2 Wood-based panels - Determination of formaldehyde release - Part 2: Formaldehyde release by the gas analysis method (01.02.1995) (Corrigendum according to ÖNORM EN 717-2/AC from 01.11.2002)
- BGBI. No. 194/1990 Austrian federal law gazette No. 194/1990 (BGBI. 194/1990)
Formaldehyde regulation
6. Regulation decree for the chemicals law: Examination methods to use at the control of formaldehyde decree
- Holzforschung Austria Working directive A 006: Determination of formaldehyde release by the gas analysis method
- Holzforschung Austria Working directive R 030: Determination of surface soundness of covered and uncovered wood based material-boards and laminate floor coverings
- Holzforschung Austria Working directive R 033: Inspection for wood based materials

2.2. Testing

The inspection in AT-9300 St. Veit/Glan was performed by Mr. DI F. Neumüller (Holzforschung Austria) in the presence of Mr. R. Wetzl (Funder Max GmbH) on 25.05.2016. Subsequent testing was carried out in the laboratories of Holzforschung Austria between May and October 2016.

2.3. Personnel

Contact: Mr. Reinhard Wetzl

2.4. Factory production control

The inspection of the factory production control was performed by Mr. DI F. Neumüller (Holzforschung Austria) in the presence of Mr. R. Wetzl (FunderMax GmbH) on 25.05.2016 and covered parts of the production and warehouse facilities as well as the laboratory. Results of the factory production control and electronic records were checked. For the production of melamine faced boards company FunderMax GmbH, AT-9300 St. Veit/Glan uses raw particle boards from the FunderMax GmbH plant in AT-7201 Neudörfl exclusively (exception: B1 boards). Regarding the formaldehyde content of the raw boards the production at the AT-7201 Neudörfl site is subject of a factory production control and external controls of conformity. All inspected and documented results of the internal quality control met the requirements.

2.5. Sampling and standardized testing

In the course of the plant inspection a sample of material for testing was drawn at random by Mr. DI F. Neumüller. The testing material is described in Tab. 1 and arrived at Holzforschung Austria on 25.05.2016.

Tab. 1: Testing material

Nummer	
1279/2016/1	4 pieces of melamine faced particleboard of the type "Star Favorit" each measuring 800 x 800 x 19 mm décor: 0741/0741, structure: FH/FH Date when melamine face was applied: 14.05.2016 Production order no.: 101631126
1279/2016/2	4 pieces of melamine faced particleboard of the type "Star Favorit Superfront" each measuring 800 x 800 x 20,3 mm decor: 0921/0921, structure: FH/FH Date when melamine face was applied: 22.05.2016 Production order no.: 101637855

In accordance with ÖNORM EN 14323 the following properties were determined at the site using full-sized panels: length, width, thickness, flatness and edge-chipping. The results of these tests are given in the enclosed tables.

The requirements listed in paragraph 2.1. were met. Test results are given in the enclosed tables.

3. Reclamations listed in previous testing report

None.

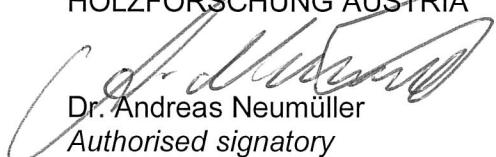
4. Summary of the evaluation

An inspection of the production of melamine-faced boards for interior uses was performed on 25.05.2016 in the plant of FunderMax GmbH in AT-9300 St. Veit/Glan.

Subsequent testing was performed by Holzforschung Austria between May and October 2016.

Plant inspection and the laboratory tests did not reveal any non-conformities. The production of melamine faced boards of the types "Star Favorit" and "Star Favorit Superfront" meets the requirements as stated in ÖNORM EN 14322 and in the Austrian Formaldehyde regulation.

HOLZFORSCHUNG AUSTRIA



Dr. Andreas Neumüller
Authorised signatory



Dr. Franz Neumüller
Technical consultant

4 enclosures

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 438-2 • ÖNORM EN 14322 • BGBl. No. 194/1990
	testing	<ul style="list-style-type: none"> • ÖNORM EN 120 • ÖNORME EN 311 • ÖNORM EN 326-1 • ÖNORM EN 438-2 • ÖNORM EN 717-2 • ÖNORM EN 14323

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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In case of dispute the original German version prevails. This translation is for information purposes only.

Table 1:
**Mechanical and physical properties and formaldehyde release of melamine faced boards of the type
 "Star Favorit", company FunderMax GmbH, AT-9300 St.Veit/Glan; Contract No. 1279/2016**

Test	Standard	Unit	1279/2016/1 (19) decor: 0741/0741, structure: FH/FH 1)				Requirement acc. to ÖNORM EN 14322 ≥ 15 to 20 mm
			X _{min}	- X _{mean}	- X _{max}	S	
Thickness t _{max} - t _{min}	EN 14323	mm	19,0	- 19,1	- 19,1	0,0	0,2 for class 3B: NT + 0,5 / - 0,3 ≤ 0,6
Length	EN 14323	mm	2817	- 2817	- 2817		± 5
Width	EN 14323	mm	2068	- 2068	- 2068	0,4	± 5
Flatness	EN 14323	mm					≤ 2
Formaldehyde release	EN 717-2	mg/m ²	SV	≤ 0,1 (DL)	Average ≤ 0,1 (DL)		≤ 3,5 (E1)
		mg/m ²	SV	≤ 0,1 (DL)			

1) minimum - mean - maximum value

DL ... Determination Limit

Table 2:
**Surface properties of melamine faced boards of the type "Star Favorit",
company FunderMax GmbH, AT-9300 St.Veit/Glan; Contract No. 1279/2016**

Test	Board No. (Nom. thickness mm) Décor	1279/2016/1 (19)				Requirement acc. to ÖNORM EN 14322 ≥ 15 to 20 mm
		Standard	Unit	X _{min} - X _{mean} - X _{max}	1) FH/FH decor: 0741/0741, structure: FH/FH	
Edge chipping	EN 14323	mm		2,0		≤ 10
Surface imperfections	EN 14323	mm ² /m ²		none		≤ 2
Punctiform imperfection		mm/m		none		≤ 20
Prolate imperfection	EN 14323	N		> 4		≥ 1,5
Resistance to scratching	EN 14323	Degree				
Resistance to staining		Degree		5 (no changes)		≥ 3
Acetone with glass cover		Degree		5 (no changes)		≥ 3
Acetone without glass cover		Degree		5 (no changes)		≥ 3
Coffee at 80 °C with glass cover	EN 14323	Degree		5 (no changes)		≥ 3
Coffee at 80 °C without glass cover		Degree		5 (no changes)		≥ 3
Tendency to crack		Degree		5 (no changes)		≥ 3
Resistance to surface wear	EN 14323	Rotations Rotations	IP WR	533 629	class 3A: ≥ 150 class 3A: ≥ 350	

1) Minimum - Mean - Maximum

Table 3:

Mechanical and physical properties and formaldehyde release of melamine faced boards of the type "Star Favorit Superfront", company FunderMax GmbH, AT-9300 St.Veit/Glan; Contract No. 1279/2016

Test	Standard	Unit	1279/2016/2 (20)			Requirement acc. to ÖNORM EN 14322 ≥ 15 to 20 mm		
			X_{\min}	-	X_{mean}	-	X_{\max}	S
Thickness $t_{\max} - t_{\min}$	EN 14323	mm	20,1	-	20,2	-	20,3	0,0
Length	EN 14323	mm	2821	-	2822	-	2822	± 5
Width	EN 14323	mm	2069	-	2069	-	2069	± 5
Flatness	EN 14323	mm				0,8		≤ 2
Formaldehyde release	EN 717-2	mg/m ²	SV	≤ 0,1 (DL)	Ave.	< 0,1 (DL)	≤ 3,5 (E1)	
		mg/m ²	SV	≤ 0,1 (DL)				

1) Minimum - Mean - Maximum value

DL ... Determination Limit

Table 4:
**Surface properties of melamine faced boards of the type "Star Favorit Superfront",
company FunderMax GmbH, AT-9300 St.Veit/Glan; Contract No. 1279/2016**

Test	Board No. (Nom. thickness mm) Décor	1279/2016/2 (20)				Requirement acc. to ÖNORM EN 14322 ≥ 15 to 20 mm
		Standard	Unit	X _{min} - X _{mean} - X _{max}	1) FH/FH	
Edge chipping	EN 14323	mm		3,0		≤ 10
Surface imperfections	EN 14323	mm ² /m ²		none		≤ 2
Punctiform imperfection		mm/m		none		≤ 20
Prolate imperfection		N		> 4		≥ 1,5
Resistance to scratching	EN 14323	Degree				
Resistance to staining	EN 14323	Degree		5 (no change)		≥ 3
Acetone with glass cover		Degree		5 (no change)		≥ 3
Acetone without glass cover		Degree		5 (no change)		≥ 3
Coffee at 80 °C with glass cover	EN 14323	Degree		5 (no change)		≥ 3
Coffee at 80 °C without glass cover		Degree		5 (no change)		≥ 3
Resistance to crazing	EN 14323	Degree		5 (no change)		≥ 3
Resistance to surface wear	EN 14323	Rotations	IP	25	class 1: < 50	
		Rotations	WR	113	class 1: < 150	

1) minimum - mean - maximum