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Pfleiderer Gütersloh GmbH
 Carl-Bertelsmann-Straße 23
 33332 Gütersloh
 Germany

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Your reference

Your message dated

Our reference
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Braunschweig, November 12, 2025

Test report No. QA-2024-1907

Customer: Pfleiderer Gütersloh GmbH
 Carl-Bertelsmann-Straße 23
 33332 Gütersloh (Germany)

Product name: Classic Board P2 F****

WKI-ID-No.: 8614

Receipt of item: October 13, 2025

Start of measurement: October 22, 2025

Objective of the measurement: Determination of the formaldehyde release according to JIS A 1460

Content of the test report:

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This test report comprises 4 pages and 2 enclosures (1 table and 1 annex concerning assessment).

This test report is not permitted to be published incompletely. A publication in extracts is in any case subject to the previous consent of Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut WKI, Riedenkamp 3 in 38108 Braunschweig (Germany). The results exclusively refer to the item of the test. The test item was used up.



Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., Munich

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1. Task

The Fraunhofer Institute for Wood Research, Wilhelm-Klauditz-Institut WKI, was entrusted by Pfeleiderer Gütersloh GmbH in 33332 Gütersloh (Germany) to determine the formaldehyde release of a wood-based panel according to Japanese standard JIS A 1460:2015 –Determination of the emission of formaldehyde from building boards – Desiccator method.

1.2 Task | Evaluation of measured value

As ordered the measured value shall be evaluated as follows:

No evaluation of the measured value formaldehyde

- 1.2.1 Determination of material characteristics,
statements on conformity with a requirement are not part of the test report.

Evaluation of the measured value formaldehyde under consideration of the limit value

- 1.2.2 Japanese standard JIS A 5908 (for uncoated and coated particleboards)
1.2.3 Japanese standard JIS A 5905 (for uncoated and coated MDF)

1.3 Task | Evaluation of measured value – Consideration of measurement uncertainty

According to the order, the measurement results are to be evaluated taking into account the decision rule applicable to the measurement procedure. Fraunhofer WKI decision rule are to be evaluated as follows:

- 1.3.1 Evaluation of the results shall be carried out according to the above requirement / standard.
No measurement uncertainties shall be considered. The requirements shall be considered fulfilled if the measured value complies with the requirements for the limit value.
- 1.3.2 Evaluation shall be made considering the measurement uncertainty
The requirements are considered fulfilled if the measurement result (measured value incl. measurement uncertainty) complies with the limit value minus the measurement uncertainty at the most.

2. Test item and data of receipt

Product:	particleboard, unfaced
Product name:	Classic Board P2 F****
Thickness [mm]:	18
Production date ref. customer:	September 25, 2025
Manufacturer:	Pfleiderer Gütersloh GmbH
WKI-ID-No.:	8614

The test item was sent to the Fraunhofer WKI for measurement.
Selection and marking was done

<input checked="" type="checkbox"/>	selection and marking by the customer
<input type="checkbox"/>	selection corresponding to Fraunhofer WKI guidelines and marking by the customer
<input type="checkbox"/>	other:

The test item arrived at Fraunhofer WKI packed in polyethylene foil on October 13, 2025, was marked with WKI-ID-No. "8614" and stored under room conditions (at 23°C / 50 % relative humidity) until start of sample preparation.

3. Execution of the measurement

The determination of the formaldehyde release was carried out according to Japanese standard JIS A 1460:2015 –Determination of the emission of formaldehyde from building boards – Desiccator method.

The item was cut off into test specimens each with the dimension of a length of (150 ± 1) mm and a width of (50 ± 1) mm. The number of test specimens was prepared to reach a total surface area, defined as the sum of the areas of the edges, sides and faces, as close as possible to 1800 cm². They were placed on a grid made out of stainless steel by using metallic holders in a circle above a glass dish containing (300 ± 1) ml distilled water.

This arrangement was kept for 24 hours \pm 5 minutes at a temperature of $(20 \pm 0,5)$ °C in a desiccator (according to JIS R 3503; inner volume: 11 l). The formaldehyde content of the distilled water (having absorbed formaldehyde evaporated from the specimens) was determined by using the acetylacetone method as specified in JISA A 1460 paragraph 8.6.

The measurements were carried out after a prior conditioning of the samples for seven days at a temperature of (20 ± 2) °C and a relative humidity of (65 ± 5) %.

4. Measured quantity value

For the test item of Pfleiderer Gütersloh GmbH in 33332 Gütersloh (Germany) tested according to Japanese standard JIS A 1460 following formaldehyde release was determined and specified as individual values and as a mean value from a repeat determination:

Receipt of test item: October 13, 2025
 Date of cutting: October 15, 2024
 Number of test specimens used for one measurement: 8
 Date of start of conditioning period: October 15, 2024
 Period of pre-conditioning: 7 days
 Date of start of JIS desiccator measurement: October 22, 2025

WKI-ID- No.	Test item name according to customer	thickness [mm]	Number of test specimens	Measured quantity value Formaldehyde release [mg / Liter] *	
				individual values	average value
8614	"Item name: Classic Board P2 F****	18	8	0.38 0.37	0.4
	Batch no.: 1125				
	Manufacturer: Pfleiderer Gütersloh				
	Production date: 25/09/2025"				
	- particleboard, unfaced				
	Blank value	-	-	0.01	-

* Determination was carried out after a prior conditioning of the test items for seven days at a temperature of 20°C and a relative humidity of 65%



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Dipl.-Ing. Harald Schwab
Head of Department
Quality Assessment

Assessment of measurement result | Japanese Standard

1. Basis of assessment

Japanese standard JIS A 5908 (for uncoated and coated particleboards) JIS A 5905 (for uncoated and coated MDF) (see annex 2).

2. Item | Measurement procedure | Measurement result

Test report No.	QA-2024-1907 dated November 12, 2025	
Customer:	Pfleiderer Gütersloh GmbH, 33332 Gütersloh (Germany)	
Product name	Classic Board P2 F****	
Type of wood-based panel	particleboard, unfaced	
Thickness [mm]	18	
Measurement procedure (applied)	JIS A 1460	
Measured quantity value	0.4	mg / L
Measurement result*	0.4	mg / L

* Measurement uncertainties were not considered for the assessment. In this case, the measured quantity value is equivalent to the measurement result.

3. Assessment

The tested item complies with the requirement of specification as follows:

Requirement of limit value fulfilled**October 8, 2024	Test method	Limit value	Evaluation acc.	Formaldehyde grade JIS average / single values
F****	JIS A 1460	mean 0.3 or under [mg / L]	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no	

** Note concerning the decision rule: Statements on conformity assessment were made on the basis of the measured quantity value obtained. Measurement uncertainties were not considered for the assessment.

Table: - Informative -

Following limit values regarding formaldehyde release are fixed for uncoated and coated particleboards (JIS A 5908) or MDF (JIS A 5905) determined by using the desiccator method JIS A 1460

formaldehyde grade	average value [mg HCHO/L]	single value [mg HCHO/L]
F☆☆☆☆	mean 0.3 or under	maximum 0.4 or under
F☆☆☆	mean 0.5 or under	maximum 0.7 or under
F☆☆	mean 1.5 or under	maximum 2.1 or under

Note: In Germany it is not allowed to use this Japanese test method for the classification of wood-based panels according to the German Prohibition Regulation for Chemical Products "Chemikalien-Verbotsverordnung".