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Braunschweig, 04 May 2020

### Test report No. QA-2020-1579

Customer:	Pfleiderer Gütersloh GmbH Stadtring Nordhorn 120 33332 Gütersloh Germany	
Receipt of sample(s):	8 April 2020	
WKI-ID-No.:	0184_2020	
Start of JIS desiccator test:	29 April 2020	
Objective of the test:	Determination of the formaldehyde release according to JIS A 1460	
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This test report comprises 3 pages and 1 table.

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The test results exclusively refer to the objects of the test. The test material was used up.



Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e. V., München  
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## **1. Task and test material**

The Fraunhofer-Institut für Holzforschung, Wilhelm-Klauditz-Institut (WKI), was entrusted by Messrs. Pfeleiderer Gütersloh GmbH in 33332 Gütersloh (Germany) with the determination of the formaldehyde release according to the Japanese standard JIS A 1460, description of sample(s) see table(s) enclosed.

The test material was selected, marked by the client and delivered to the WKI for examination.

The test material arrived at WKI packed in polyethylene foil on 8 April 2020 was marked with WKI-ID-No. "0184\_2020" and stored under room conditions (at 23°C / 50 % relative humidity). It was unpacked and cut off on 22 April 2020 and conditioned for seven days at a temperature of 20°C and a relative humidity of 65%.

The JIS desiccator test started on 29 April 2020.

## **2. Execution of the test**

The determination of the formaldehyde release was made according to the Japanese test method called JIS A 1460.

The sample was cut off into 8 pieces each with the dimension of 150 mm x 50 mm x thickness. They were placed on a grid made out of stainless steel by using metallic holders in a circle above a glass dish containing 300 ml distilled water.

This arrangement was kept for 24 hours at a temperature of 20°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. The tests were carried out after a prior conditioning of the samples for seven days at a temperature of 20°C and a relative humidity of 65%.

### 3. Test results

The table enclosed to the test report shows the formaldehyde values of the tested sample(s). They are specified as individual values and as a mean value of a repeated determination as well.

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

We draw your attention to the fact that the effected test was made as a material parameter and not as a classifying test.



Kathrin Huslage  
Official in charge



Dipl.-Ing. Harald Schwab  
Head of Testing, Supervision and  
Certifying Body

Table: Formaldehyde release according to the Japanese standard JIS A 1460 of a sample ordered by Messrs. Pfeleiderer Gütersloh GmbH in 33332 Gütersloh (Germany)

Date of receipt: 8 April 2020  
 Start of conditioning period: 22 April 2020  
 Conditioning period: 7 days  
 Start of JIS test: 29 April 2020

WKI-ID-No.	Sample name according to customer	thickness [mm]	Number of test specimen	Formaldehyde release [mg / Liter] *	
				individual values	average value
0184_2020	“Sample name: <b>16 mm JIS F****, beschichtet, W10220 MP beidseitig</b> ”	16	8	0.23 0.26	0.2
	Product code: 440-2020				
	Thickness: 16 mm				
	Manufacturer: Pfeleiderer Gütersloh GmbH				
	Production date: 26 March 2020; coating on 2 April 2020”				
	- particleboard, faced on both sides				
	Blank value	-	-	< 0.01	-

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