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Your reference

Your message dated

Our reference Mey/Pr

Braunschweig, 25 November 2013

Test Report No. QA-2013-2414

Client: Kronospan Schweiz AG

Willisauerstr. 37 6122 Menznau Switzerland

Method and object

of the test:

External supervision of wood based materials regarding formaldehyde

content

Content of the test report:

Task
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The test report comprises 3 pages and 1 appendix.

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







DIBt-Richtlinie 100



#### 1. Task

External supervision of wood based materials according to the "Regulation on the classification and external supervision of wood-based panels regarding formaldehyde emission (DIBt-Richtlinie 100)" version June 1994 resp. to the "Regulation on the Prohibition of Chemicals [Chemikalien-Verbotsverordnung (ChemVerbotsV)]" using the perforator method.

The supervision is done according to the contract 116 dated 7 December 1987 between the client and the WKI; corresponding to this contract the attestation no. 116 is valid for the supervision period mentioned.

### 2. Material

Type of wood-based panels: particleboard, unfaced

Technical type: DIBt 100, E1
Plant category: SwissSpan E1

Thickness [mm]: 18
Thickness range [mm]\*:  $\leq 60$ Identity No.: 9421

## \*Reference note:

According to the DIBt-Richtlinie 100 the manufacturer is allowed to differentiate between the following thickness ranges in order to enable him to restrict test and evaluation criteria: up to 12 mm, more than 12 mm up to 25 mm, more than 25 mm up to 40 mm, more than 40 mm up to 60 mm, more than 60 mm.

The boards were sampled on 9 September 2013 by a WKI's representative. Referring to the information given by the customer the samples were produced on 22 August 2013. The sampling was carried out in accordance with the DIBt-Guideline 100. The tests were carried out on 18 November 2013, 19 November 2013, 20 November 2013. The test material was used up.



#### 3. Test methods

The determination of formaldehyde content was carried out without a prior conditioning of the samples according to the perforator method DIN EN 120:1992-08. Moisture content was determined according to DIN EN 322:1993-08.

#### 4. Test results

The test results are made up in the following table. The perforator values are mean values of a double testing. Non of the three mean values of the boards may exceed the limit value of 8.0 mg HCHO/100 g dry board by more than 10 %. (General limit values see appendix)

Identity No.	Thickness [mm]	Density [kg/m³]	Moisture content		or value 00 g dry board]
			[%]	А	В
9421/1	18	643	5.4	3.7	4.2
9421/2	18	639	5.3	3.4	3.9
9421/3	18	653	5.0	3.3	3.9
X		645	5.2	3.5	4.0

A = determined perforator value

B = perforator value converted to 6,5 % moisture content

Bettina Meyer Official in charge anerkannte Übonadungs und Zegrüngen der Wing- alla Schmatte

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



# **Appendix (Assessment criterias)**

According to the German Prohibition for Chemical Products – "Chemikalien Verbotsverordnung" – annex § 1, para 3, in relation with the publication of the Federal Health Office in the journal "Bundesgesundheitsblatt", issue October 1991 (p. 487 – 489) and the "Regulation on the classification and external supervision of wood-based panels regarding formaldehyde emission (DIBt-Richtlinie 100)" version June 1994 the limit values are as follows:

	Perforator value*) [mg HCHO/100 g dry board]	
	average value	single value
uncoated particleboard	6,5	8,0
uncoated fibreboard	7,0	8,0

<sup>\*)</sup>the average value is defined as rolling half year value, the single value is defined as 95% percentil

The values are valid after a conversion to a material humidity of 6,5 %.

Uncoated boards with perforator values > 8 and < 10 mg HCHO/100 g dry board may only be put in circulation with special labeling.