



Quality Assessment

WKI · FRAUNHOFER-INSTITUT · Bienroder Weg 54 E · D-38108 Braunschweig

NIVAM b.v.
PO Box 9701

3506 GS Utrecht
The Netherlands

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

Bienroder Weg 54 E
D-38108 Braunschweig
Germany

Phone +49 (0) 531/2155-370
Telefax +49 (0) 531/2155-907
E-mail harald.schwab@wki.fhg.de
www.wki.fhg.de

Officer in charge: Bettina Meyer
Phone +49 (0) 531/2155-375
Telefax +49 (0) 531/2155-906
E-mail bettina.meyer@wki.fhg.de

Your reference

Your message dated

Our reference
Mey

Braunschweig,
29 September 2005

Test report No. B1575/05

Customer:

NIVAM b.v.
PO Box 9701

3506 GS Utrecht (The Netherlands)

Order of:

3 June 2005

Receipt of sample:

13 June 2005

WKI-ID-No.:

863/05

Date of test:

15 June 2005

Objective of the test:

Determination of formaldehyde release

Content of the test report:

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This test report comprises 3 pages and 1 figure.

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-Institut für Holzforschung, Wilhelm-Klauditz-Institut (WKI), Bienroder Weg 54E in 38108 Braunschweig (Germany).

The test results exclusively refer to the objects of the test.


The test material was used up.

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Banking Code:
Deutsche Bank, München
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EC Notified 0765	Testing, Supervising and Certifying Body authorized by the Principal Authority for Supervision of Construction
 Deutscher Akkreditierungs Rat DAP-PL-2071.00	Testing laboratory authorised by DAP Deutsches Akkreditierungssystem Prüfwesen GmbH according to DIN EN ISO/IEC 17025. The requirements of the DIN EN ISO 9001 : 1994 are fulfilled. The authorisation covers the test methods listed in the certificate..



1. Task and test material

The Fraunhofer-Institut für Holzforschung, Wilhelm-Klauditz-Institut (WKI), was entrusted by Messrs. NIVAM b.v. in 3506 GS Utrecht (The Netherlands) with the determination of formaldehyde emission value of an uncoated fibreboard sample with a thickness of 25 mm. The test has been carried out 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).

The test material has been chosen, marked with

„TECTUM magnesite bound fibre panel
manufactured by:
Tectum Inc.
105 Sixth South Street
Newark, Ohio (USA)
supplied by:
Nivam BV
Kalkoven 4
Ind. terrein Diepswal
9351 NP Leek“

and sent for testing to the WKI by the customer.

2 . Execution of the test

For the determination of formaldehyde release two samples each with the dimensions of 500 mm x 500 mm x thickness and a total surface of 1 m² were put into a 1 m³ chamber. The edges were sealed with self-adhesive aluminium tape before testing to get a ratio U (unsealed edges) / A (surface area) of 1,5 m/m².

During the test the temperature was kept at 23°C ± 0,5 K, the relative humidity of the air was kept at 45 ± 3 % and the air exchange rate was adjusted to 1 h⁻¹.



Therefore, the relationship between air exchange level and room load was 1. The concentration of formaldehyde in the 1 m³ chamber was measured twice a day until steady state concentration was reached using the acetylacetone-method.

The climatic test parameters above-mentioned correspond to EN 717-1:2005-01. The test parameter published by BGA in the Bundesgesundheitsblatt 34, 10 (1991), S. 488 - 489, to fulfil the requirements of the German Chemikalien-Verbotsverordnung – ChemVerbotsV -, annex § 1, para 3, are followed as well.

3. Test result

For the tested uncoated fibreboard sample with a thickness of 25 mm named „TECTUM magnesite bound fibre panel“ as tested as described in Ch. 2 a formaldehyde concentration of 0,01 ppm was determined in the 1 m³ chamber (testing period: 291 hours – see figure enclosed – 1 ppm \triangleq 1,2 mg HCHO/m³ air at 20°C and 1013 hPa).

This value is lower than 0,1 ppm, showing that the tested sample of Messrs. NIVAM b.v. in 3506 GS Utrecht (The Netherlands) fulfils the requirements of the German Prohibition Regulation for Chemical Products concerning wood based materials.

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

Bettina Meyer
Officer in charge

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

Enclosure to test report No. B1575/05
dated 29 September 2005

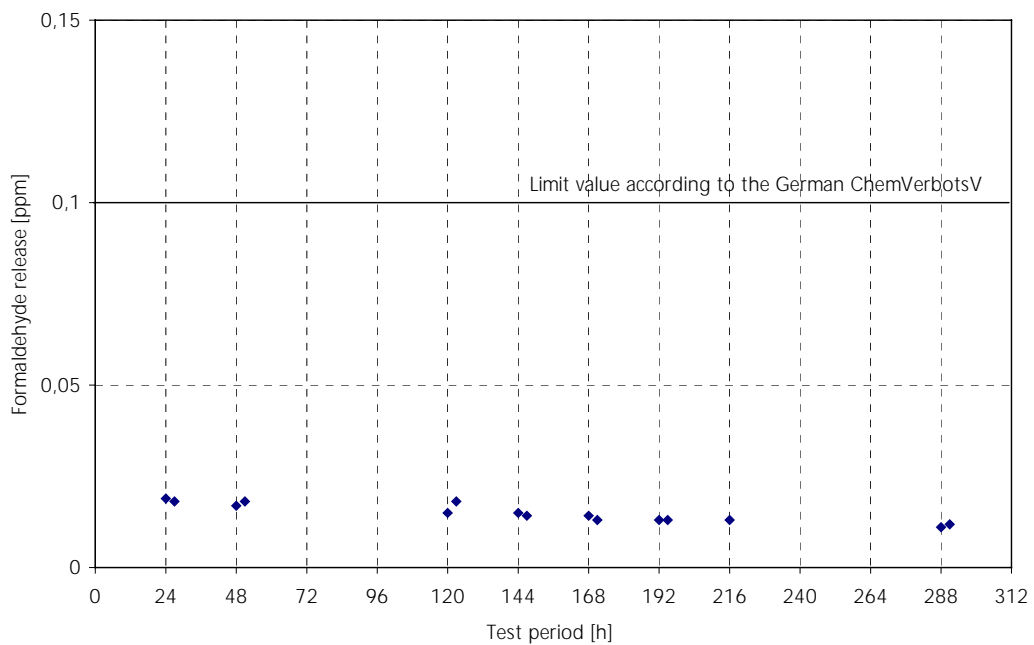


Figure: Determination of formaldehyde release using a 1 m³ chamber of an uncoated fibreboard sample with a thickness of 25 mm marked with „TECTUM magnesite bound fibre panel“ sent by Messrs. NIVAM b.v. in 3506 GS Utrecht (The Netherlands)