



Produktprüfung
Zertifizierung
Qualitätssicherung



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Akkreditiertes Prüflabor
nach DIN EN ISO/IEC 17025



Test Report No. 39833 – 001 (III)

Client:	Wall-Art Hong Kong Ltd. Sheung Wan, Hong Kong
Sample description by client:	Wall Art 3d wall panels (made of sugarcane)
Sample no.:	A001
Type of sample:	Wall covering as reference for all Rebel of Styles design tiles made of sugarcane.
Sampled by:	see b) sampling report
Date of arrival of sample:	25.03.2013
Condition of sample:	without objection
Date of report:	24.06.2013
Number of pages of report:	4
Test parameter:	Emission test following the "Principles for the Health Assessment of Construction Products", published by the "German Institute of Structural Engineering (Deutsches Institut für Bautechnik DIBt)", status: October 2010 - Volatile Organic Compounds (VOC) after 3 and 7 days - Aldehydes and ketones after 3 and 7 days
Testing laboratory:	eco-INSTITUT GmbH, Cologne

a) Legal basis of emission test

The emission tests have been performed in accordance with the "Principles for the Health Assessment of Construction Products", published by German Institute of Structural Engineering (Deutsches Institut für Bautechnik DIBt), status: October 2010. The analysis is based on the LCI-list, issued 2012.

b) Sampling Report

Not applicable

c) Special remarks

Not applicable

d) Emission test

Preparation of the test specimen	according to DIN EN ISO 16000-11 and DIN EN 717-1	
Date of the manufacture of the test specimen	2013-04-05	
Dimensions	35,3 cm x 35,3 cm	
Masking of sample	edges not masked, backside masked	
Details of additional material	adhesive aluminium band, producer: Praktikus techn.-chem. Erzeugnisse GmbH	
Test	Start of preconditioning	
	Placing of the test specimen into the test chamber and start of testing (t_0)	05.04.2013
	First sampling (t_{3d})	08.04.2013
	Second sampling (t_{7d})	12.04.2013
	Arrangement of the test specimen in the test chamber	on floor
	Use of the break-off criteria	7 days
Test chamber	Type	Emission chamber
	Manufacturer	eco-INSTITUT GmbH, Cologne
	Material and volume	Glass, 0,125 m ³
	Details of climate and other conditions	Temperature: 23°C
		Relative humidity: 50 %
Air pressure: normal		
	Air: cleaned	
	Air change rate: 0.5 h ⁻¹	
	Air velocity: 0,3 m/s	
	Loading: 1 m ² /m ³	
	Area specific air flow rate: 0,5 m ³ /m ² *h	
Analytics	Analytical system	The emission tests have been performed in accordance with the "Principles for the Health Assessment of Construction Products", published by German Institute of Structural Engineering (Deutsches Institut für Bautechnik DIBt), October 2010 considering

Remark: The test result referred to the submitted test sample exclusively. The validity of the report is three years at most and will end immediately at any alternation of material composition or in manufacturing process. Publishing in parts requires authorisation.

	<p>additional decisions and cited test methods:</p> <ul style="list-style-type: none">- test chamber following DIN EN ISO 16000-9- VOC-analysis following DIN ISO 16000-6- Aldehydes/Ketones analysis following DIN ISO 16000-3 <p>The emission test of the volatile organic compounds has been performed under realistic conditions in a testing chamber under standardized testing conditions for loading, air exchange rate, humidity, temperature and air flow velocity of the chamber air.</p> <p>Air samples were collected after 3 and 7/28 days under continuous testing conditions. Samples volumes were 5 l chamber air with 100 ml/min on Tenax and 100 l with 0,8 l/min on DNPH.</p> <p>Tenax samples have been analyzed with GC/MS. Limit of consideration was 5 µg/m³. The collected aldehydes and ketones on DNPH were analyzed with liquid desorption / HPLC. Limit of consideration was 5 µg/m³.</p> <ul style="list-style-type: none">- Thermodesorber (ATD or Turbomatrix)- GC/MS-system with constant pressure program and Quadrupol-analyser- Column: Methylsilicone-phase with 5 % Phenylsilicone, length 60 m, inner diameter 0.25 mm, film thickness 1.0 µm
Special remarks	<p>The test took place without special remarks.</p>
Quality assurance system	<ul style="list-style-type: none">- Accredited for chamber tests and VOC-analysis by thermodesorption-GC/MS- Participation in robin round tests- Participation in experience exchange- Application of internal standards- Validation of test chamber with permeators- Thermo desorber validation with test mixture- Control charts

e) Results

The test results are listed in the excel sheet „ADAM_2012_08_3_eco.39833.2.A001_III.xls“.

Cologne, 24.06.2013



Dr. H.-U. Krieg
(Technical Manager)

Assessment of the emission test following the "Principles for the Health Assessment of Construction Products", published of the "German Institute of Structural Engineering (Deutsches Institut für Bautechnik DIBt)", status: October 2010

3 day emission..... fulfilled
7 day emission..... fulfilled
28 day emission..... not tested

The assessment is subject to the confirmation by the "German Institute of Structural Engineering (Deutsches Institut für Bautechnik DIBt)".

This test report does not replace a general technical approval by DIBt.

Cologne, 24.06.2013



Daniel Tigges, Dipl.-Holzwirt
(Projekt Manager)