

Entwicklungs- und Prueflabor Holztechnologie GmbH · Zellescher Weg 24 · 01217 Dresden · Germany

LOBA GmbH&CO.KG
Herr Dr. Ehmann
Leonberger Straße 56-62
71256 Ditzingen

Deutschland

E-Mail: wolfgang.ehmann@loba.de

Entwicklungs- und Prueflabor
Holztechnologie GmbH
Zellescher Weg 24
01217 Dresden · Germany

Phone: +49 351 4662 0
Fax: +49 351 4662 211
info@eph-dresden.de
www.eph-dresden.de

Sw-50
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Test Report Order no. 2519001

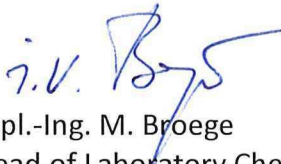
Client: LOBA GmbH&CO.KG
Leonberger Straße 56-62
71256 Ditzingen

Date of order: 17.12.2018

Order: Determination of the migration behavior of heavy metals according to DIN EN 71-3: 2018-08 (category III, table 1) in 2 samples of parquet oil

Contractor: EPH – Laboratory chemical testing

Engineer in charge: Dr. Christiane Swaboda



Dipl.-Ing. M. Broege
Head of Laboratory Chemical Testing

The test report contains 3 pages. Any duplication, even in part, requires written permission of EPH.

1 Assignment

Determination of the migration behaviour of heavy metals according to DIN EN 71-3 (category III, table 1) in in 2 samples of parquet oil

2 Sample material

The client handed over the following samples:

- P1 LOBASOL® HS Akzent 100 Oil
- P2 LOBASOL® HS 2K Impact Oil

Sample receipt in the EPH: 21 December 2018

3 Investigations carried out

3.1 Migration behavior of heavy metals acc. to DIN EN 71-3

The following elements were to be determined:

Aluminum (Al), Antimony (Sb), Arsenic (As), Barium (Ba), Boron (B), Cadmium (Cd), Cobalt (Co), Chrome (Cr), Copper (Cu), Mercury (Hg), Manganese (Mn), Nickel (Ni), Lead (Pb), Selenium (Se), Tin (Sn), Strontium (Sr), Zinc (Zn)

About 1 g of the lacquer were scraped from the surface of the glass plates added with 50 ml of 0.07 mol HCl, stirred for 15 minutes at 37°C and then left for 2 hours. Afterwards, the liquid was separated by centrifugation. The resulting pH - value of the solutions was 1.5.

The quantitative determination of the heavy metals was carried out with the methods and detection limits indicated in table 1. The results are average values from a double determination.

The evaluation of the results followed the limit values for category III according to pt. 7.4.3.1 for uncolored or imbued materials like wood, wood-based materials, bones ore leather.

The values are averages of a double determination.

4 Results

Table 1 Details of testing method, limit values and measuring values for estimation of the heavy metal contents

Test method		LV		Measuring Values	
ICP-OES	Wavelength (nm)	DL (mg/kg)	Category III (mg/kg)	P1 (mg/kg)	P2 (mg/kg)
Al	237.312	3	70000	47.4	<DL
As	193.696	1.5	47	<DL	<DL
B	182.577	3	15000	<DL	<DL
Ba	455.403	0.1	18750	<DL	<DL
Cd	214.439	0.05	17	<DL	<DL
Co	230.786	0.05	130	<DL	<DL
Cr	205.560	0.05	0.2*	<DL	<DL
Cu	213.598	0.1	7700	0.2	0.3
Hg**	184.887	0.05	94	<DL	<DL
Mn	257.610	0.05	15000	<DL	<DL
Ni	231.604	0.25	930	<DL	<DL
Pb	220.353	1.5	23	<DL	<DL
Sb	206.834	1.5	560	<DL	<DL
Se	196.026	1.5	460	<DL	<DL
Sn	189.925	0.05	12***	<DL	<DL
Sr	407.771	0.05	56000	<DL	<DL
Zn	213.857	1.5	46000	<DL	<DL

DL= Determination Limit

LV = Limit value acc.to DIN EN 71-3, pt. 4.2 table 2 in connection with table 1 pt. 4.1

* value for Cr VI ** = with Hydridsysteme, ***Value for Organotin

5 Evaluation

The two products completely meet the requirements of DIN EN 71-3 (2018:08).

6 Miscellaneous

The product samples will be stored in the EPH for 3 months as retained samples.



Dr. rer. nat. Ch. Swaboda
Chemist in Charge