

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

Rheinspan GmbH & Co. KG  
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Dresden, 10/01/2023  
FiM

## Test Report Order no. 2522319\_2

**Client:** Rheinspan GmbH & Co. KG  
Konrad-Nolte-Straße 40  
76726 Germersheim

**Order:** Testing of two samples on the organochlorine pesticides  
Pentachlorophenole (PCP) and Lindane as well as on polycyclic  
aromatic hydrocarbons (PAH)

**Contractor:** Entwicklungs- und Prueflabor Holztechnologie GmbH  
Chemical Testing  
Zellescher Weg 24  
01217 Dresden  
Germany

**Engineer in charge:** Dr. Martin Fischer



Dipl.-Ing. Martina Broege  
Head of Laboratory Chemical testing

The test report contains 3 pages. Any duplication of extracts requires the written permission of EPH. The test results refer exclusively to the material tested.

## 1 Task

The accredited Entwicklungs- und Prueflabor Holztechnologie GmbH was instructed by the company Rheinspan GmbH & Co. KG to test two samples on the organochlorine pesticides PCP and lindane as well as on polycyclic aromatic hydrocarbons (PAH).

## 2 Test material

test material: 12mm Eco Maxx vom 12/11/22 Auftr.-2974  
 18mm Eco Maxx vom 19/11/22 Auftr.-3051  
 date of receipt: 05/12/2022

**tab. 1** Requirements for wood and wood products

	PCP [mg/kg]	Lindane [mg/kg]
IKEA IOS-MAT-0010 Version no: AA-10911-16	max. 3.0	max. 1.0
IOS-MAT-0054 Version no: AA-92520-12	max. 1	max. 1

## 3 Test performance

Both samples were completely ground to a particle size of  $\leq 1$  mm and homogenized thereafter. The tests for PCP and lindane were carried out in accordance with IOS-MAT-0010 (version no.: AA-10911-16) or EN 71-10 and EN 71-11 respectively. From the cut and homogenized samples two weights of 2 g each were prepared, mixed with 40 mL toluene and 2 mL 1 M sulphuric acid, treated for 4 h at  $\geq 40$  °C in an ultrasonic bath and further extracted for 20 h using a laboratory shaker. Afterwards, the extraction solutions were filtered through 0.2  $\mu$ m disposable filters and measured directly with a gas chromatograph with electron capture detector (GC-ECD) for the determination of lindane. Another part was derivatised with acetic anhydride and measured with GC-ECD to determine the PCP content. Calibration was performed externally using commercial calibration standards.

Limit of quantification: 0.05 mg/kg  
 The tests were carried out: 13-15/12/2022

From the cut and homogenized samples two exact weights of 0.5 g each were mixed with 10 mL toluene containing internal standards and then extracted for 1 h at 60 °C in an ultrasonic bath. The extracts were filtered through 0.2  $\mu$ m disposable filters and measured using a gas chromatograph with mass selective detection (GC-MS). The determination of PAHs in the extracts was performed following AfPS GS 2019:01 PAH [1].

Limit of quantification for single PAH: < 0.2 mg/kg  
 The tests were carried out: 21-22/12/2022

## 4 Results

**tab. 2** PCP and Lindane in two samples; [mg/kg]

sample	PCP	Lindane
12mm Eco Maxx vom 12/11/22 Auftr.-2974	1.2	0.2
18mm Eco Maxx vom 19/11/22 Auftr.-3051	0.7	0.1

tab. 3 PAH in two samples; [mg/kg]

PAH single component	12mm Eco Maxx vom 12/11/22 Auftr.-2974	18mm Eco Maxx vom 19/11/22 Auftr.-3051
naphthalene	-	-
phenanthrene	-	-
anthracene	-	-
fluoranthene	-	-
pyrene	-	-
chrysene	-	-
benzo(a)anthracene	-	-
benzo(b)fluoranthene	-	-
benzo(k,j)fluoranthene	-	-
benzo(e)pyrene	-	-
benzo(a)pyrene	-	-
indeno(1,2,3-cd)pyrene	-	-
dibenzo(a,h)anthracene	-	-
benzo(ghi)perylene	-	-
<b>sum, rounded</b>	<b>=</b>	<b>=</b>

If an assessment is made according to AfPS GS 2019:01 PAH [1], both samples are to be classified in category 1 listed there.

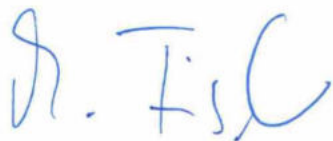
Both samples meet the requirements of IOS-MAT-0010 and IOS-MAT-0054 regarding the tested parameters PCP and Lindane.

## 5 Reference

- [1] AfPS GS 2019:01 PAK, Prüfung und Bewertung von Polyzyklischen Aromatischen Kohlenwasserstoffen (PAK) bei der Zuerkennung des GS-Zeichens - Spezifikation gemäß § 21 Abs. 1 Nr. 3 ProdSG – status: 15/05/2019

## 6 Miscellaneous

The remaining material is stored for 3 months and then disposed of.



Dr. Martin Fischer  
Chemist in charge