

Aschaffenburg, 14 June 2024

From: IIs-har  
Authorized by: IIs

## REPORT

**Order No.:** 17622/9a      **Page 1 of 3 pages**

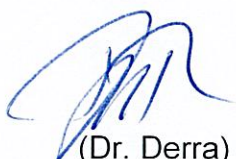
**Client:** Guangxi Sun Paper Board Co., Ltd.  
No. 1, 5<sup>th</sup> Floor, Tieshan Port Joint Inspection BLDG  
Xinggang Town, Tieshan Port, Beihai City  
Guangxi Zhuang Autonomous Region  
536017  
China

**Date of order:** 28 March 2024

**Receipt of sample material:** 24 April 2024

**Origin of sample material:** From the client

**Purpose:** Analysis of a board grade for various parameters



(Dr. Derra)  
Managing Director



(IIs)  
Officially certified  
food chemist  
Project manager

The present report exclusively refers to the samples mentioned. It meets the requirements of the DIN EN ISO/IEC 17025:2018 for simplified test reports. Additional information and statistical data on the results are available upon request.

## **Sample Material**

For analysis the following sample material was in hand:

IPSUN GC BOARD

## **Carrying out of the Tests**

Examination period: 24 April 2024 to 14 June 2024

### **1. Determination of the Grammage \***

The determination was performed according to DIN EN ISO 536:2012-11 after conditioning of the sample at 23 °C/50 % relative humidity which is prescribed as standard atmosphere with a reduced amount of test specimens.

Result: 301 g/m<sup>2</sup>  $\triangleq$  280 g dry matter/m<sup>2</sup>

### **2. Determination of the Moisture Content \***

The determination was performed as single determination according to DIN EN ISO 638-1:2022-07 in the condition as received.

Result: 6.0 %

### **3. Preparation of Extracts \***

The extract was prepared according to the "Methodensammlung zur Untersuchung von Papier, Karton und Pappe für den Lebensmittelkontakt" (collection of methods for the examination of paper and board for food contact) of the BfR as well as according to DIN EN 645:1994-01. The selection of suitable procedures for simulating the transfer of substances was performed according to the corresponding BfR guideline ("Leitfaden zur Überprüfung der Stoffübergänge von Bedarfsgegenständen aus Papier, Karton und Pappe").

Water: 24 hours at 23 °C

### **4. Determination of Methanal (Formaldehyde) in the Water Extract \***

The determination was performed according to DIN EN 1541:2001-07 photometrically in line with the acetylacetone method.

Result: not quantifiable < 0.004 mg/g dry matter

## 5. Determination of the Transfer of Antimicrobial Constituents \*

The determination was made according to DIN EN 1104:2019-01. Test specimens of a diameter of 10 mm were placed onto an inoculated nutrient medium and then incubated. The inhibition zone is indicated as total diameter (including the test specimen).

Result:

with *Aspergillus niger*: Microbial growth up to the edges of the test specimens.  
Presence of a modification of the test microorganism *A. niger* growth at the edges of the test pieces.

with *Bacillus subtilis*: Microbial growth up to the edges of the test specimens.

Comment:

The proof of the presence of an inhibition zone is provided by the absence of test microorganism growth in a minimum diameter of 14 mm.

Therefore, a transfer of antimicrobial constituents is considered as not detected.

## 6. Determination of the Heavy Metals in Packagings \*

The determination was performed after microwave disintegration by means of AAS or ICP-OES. It applies to those metals which are restricted according to the European Packaging Directive 94/62/EC as well as to the US American CONEG legislation.

Result:

Lead	(Pb):	not quantifiable	< 5	mg/kg dry matter
Cadmium	(Cd):	not quantifiable	< 0.5	mg/kg dry matter
Mercury	(Hg):	not quantifiable	< 0.25	mg/kg dry matter
Chromium	(Cr):		1.2	mg/kg dry matter

**Limit value** 100 mg/kg (sum of Pb, Cd, Hg and Cr(VI)).

Comment:

Under the disintegration conditions the total content of chromium including chromium(VI) is detected.

17622/9a  $\hat{=}$  preliminary test report; current state of the tests.

The accreditation applies to the methods marked with \* in the test report (Register no. D-PL-14160-01-01).

End of report