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Dresden, 24 January, 2019

Test Report Order no. 2218044, Pos. 10

Client: Zhejiang Xinhaiye Bamboo Technology Co., Ltd.

Xikou Industrial Zone, Longyou County

Zhejiang, China

**Date of order:** 4 December, 2018

**Order position:** Moisture resistance and dimensional stability

**Contractor:** EPH – Entwicklungs- und Prueflabor Holztechnologie GmbH

Laboratory Unit Material and Product Testing

**Engineer in charge:** Dipl.-Ing. J. Gecks

Dipl.-Ing. J. Gecks Head of Laboratory Material and Product Testing

The test report contains 3 pages. Any duplication, even in part, requires written permission of EPH. These test results are exclusively related to the tested material.







#### 1 Terms of Reference

The Entwicklungs- und Prueflabor Holztechnologie GmbH (EPH) was ordered by Zhejiang Xinhaiye Bamboo Technology Co., Ltd. to carry out the test below:

- Determination of moisture resistance and of dimensional stability in water immersion test acc. to DIN EN 15534-1, § 8.3.

#### 2 Test Material

The test material was sent to the Contractor by the Client and got to the laboratory on 4 December, 2018.

Producer: Fujian Dasso Industry Co., Ltd.

Zhuhai trading mall, Jianou city, Fujian province, China

Cross-section: 145 mm x 20 mm

The test material was conditioned at a temperature of 23 °C and a relative humidity of 50 % after cutting of the test pieces.

### 3 Realisation of Tests

The test for determination of moisture resistance and dimensional stability was carried out by analogy with EN 317: 3 test specimens were stored in water (temperature of 20 °C) during 28 days. Afterwards, the thickness, the width und the length was measured using a calliper gauge for the determination of swelling. The mass was measured before and after immersion test for the calculation of water absorption. The test pieces were stored at normal conditions (temperature of 23 °C and relative humidity of 50 %) before the test.

The test was carried out between 19 December, 2018 and 16 January, 2019.

## 4 Results

Table 1: Swelling rate after immersion in water for 28 days (dimensional stability)

No. of test specimen	Dimension	Swelling rate in %
64-1	thickness	5.7
64-2		4.9
64-3		4.7
Mean value		5.1
64-1	width	0.5
64-2		0.5
64-3		0.7
Mean value		0.6
64-1	length	0.1
64-2		0.1
64-3		0.1
Mean value		0.1



Table 2: Water absorption after immersion in water for 28 days (water resistance)

No. of test specimen	Water absorption rate in %
64-1	4.4
64-2	4.8
64-3	5.1
Mean value	4.8

# 5 Summary of test results

Swelling rate in thickness: 5.1 %

Swelling rate in width: 0.6 %

Swelling rate in length: 0.1 %

Water absorption: 4.8 %

The values given above are mean values.

