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

Zhejiang Xinhaiye Bamboo Technology Co., Ltd.
Xikou Industrial Zone, Longyou County, Zhejiang
China

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

Dresden, 13.03.2019

Test Report
Order no. 2218044/pos.1

Client:	Zhejiang Xinhaiye Bamboo Technology Co., Ltd. Xikou Industrial Zone, Longyou County, Zhejiang, China
Date of order:	04/12/2018
Order position	Pos.1: Laboratory test of the resistance against mould according to EN ISO 846, Method A (Fungal growth test)
Contractor:	Entwicklungs- und Prüflabor Holztechnologie GmbH Laboratory Unit Biological Testing Zellescher Weg 24 01217 Dresden Germany
Engineer in charge:	Dipl.-Ing. Kordula Jacobs

Dr. Wolfram Scheiding
Head of Laboratory Biological Testing

Task

Determination of the resistance against mould in a laboratory test according to EN ISO 846, method A (fungal growth test)

Test material

Product name:	DASSO DassoXTR exterior strand woven bamboo decking
Producer:	Jiangxi Zhushang Bamboo Industry Co., Ltd. Gaofu modern Bamboo Industrial Park, Zixi County, Jiangxi Province
Delivery date:	04/12/2018

Test performance

Test standard:	DIN EN ISO 846:1997-10 (method A)
Test principle:	Specimens from the test material were put on mineral salt agar without organic carbon source. A mixed spores' suspension of five mould fungi was spread onto the agar and the specimens' surface. After incubation under optimal conditions for the growth of mould fungi, the mould infestation (germination of spores, mycelia growth and sporulation) was visually assessed.
Test fungi:	*Aspergillus niger* DSM 1957 *Talaromyces pinophilum* DSM 1944 *Trichoderma viride* DSM 1963 (synonym: *Gliocladium virens*) *Paecilomyces variotii* DSM 1961 *Chaetomium globosum* DSM 1962 Concentration of the mixed spores' suspension: 1×10^6 spores/ml
Specimens:	50 mm × 50 mm × 5 mm (length × width × thickness), 5 replicates; delivered by the client
Aging procedure:	no weathering, leaching or evaporation procedure before the fungal test
Viability control:	inoculation on mineral salt agar with saccharose as organic carbon source with the mixed spores' suspension
Microbicide solution:	70 % ethanol
Test temperature:	29 ± 1 °C
Incubation period:	28 days (08 February – 08 March 2019)

Results

Validity

The test was valid because the viability controls were heavily overgrown after 7 days and showed typical growth of all test fungi after 14 days (figure 1).

Infestation of the test material

The specimens were not infested by mould fungi within 28 days of incubation (no spore germination and mycelium formation on the surface, table 1 and figure 2). However, strong fungal growth occurred on the side surfaces of the specimens and onto the agar (figure 2).

Table 1: Evaluation of the growth on the specimens' surface (rating*) after 28 days

Specimen No.	6	7	8	9	10
Rating	0	0	0	0	0

*Rating	Description
0	No growth apparent under the microscope (50-fold magnification)
1	No growth visible to the naked eye, but clearly visible under the microscope
2	Growth visible to the naked eye, covering up to 25 % of the test surface.
3	Growth visible to the naked eye, covering up to 50 % of the test surface
4	Considerable growth, covering more than 50 % of the test surface
5	Heavy growth, covering the entire test surface

Figure 1: Viability control after 28 days of incubation (all test fungi with typical growth)

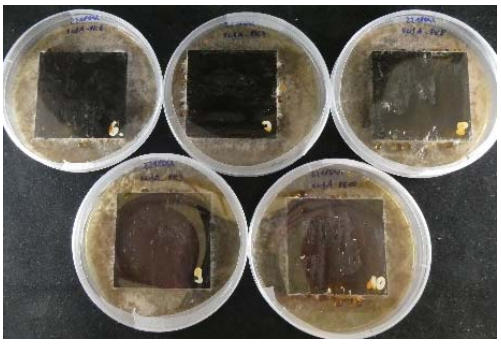

Figure 2: Test specimens after 28 days of incubation

Evaluation

The surface of the test material was not infested by mould fungi (no spore germination and mycelia growth). Thus, the material achieved the rating "0". In accordance to the standard that means:

- **The surface of the material is resistant against mould fungi.**
- **The surface of the material does not provide a nutrient source.**
- **The surface of the material possesses fungistatic properties.**

Dresden, 13.03.2019

.....

Dipl.-Ing. Kordula Jacobs
Person in charge