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Dresden, 05/06/2018

Test Report
2218002-A1/pos.4

Client:	Zhejiang Xinhaiye Bamboo Technology Co., Ltd. Xikou Industrial Zone, Longyou County, Zhejiang, China
Date of order:	07/03/2018
General order:	Laboratory tests and analysis of wood decking: biological durability, anti-slip properties, mechanical properties, and chemical analysis
Order position	Pos. 4: Laboratory test of the resistance against moulds 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

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Dr. Wolfram Scheiding
Head of Laboratory Unit Biological Testing

This report is an actualization of report 2218002 from 22/05/2018 (Complementation of test performance parameters). 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.

Task

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

Test material

Product name:	DASSO DassoCTECH exterior strand woven bamboo decking
Producer:	Fujian Dasso Industry Co.,Ltd. Zhuhai trading mall, Jianou city, Fujian province, China
Delivery date:	07/03/2018

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 of 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 (10 April – 08 May 2018)

Results

Validity

The test was valid because the viability controls were heavily grown after a period of 4 days and showed typical growth after a period of 14 days (figure 1).

Infestation of the test material

The specimens were not infested by mould fungi (no spore germination and mycelia growth) within 28 days of incubation. Also, no fungal growth occurred onto the agar (table 1, figure 2).

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

Specimen No.	1	2	3	4	5
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

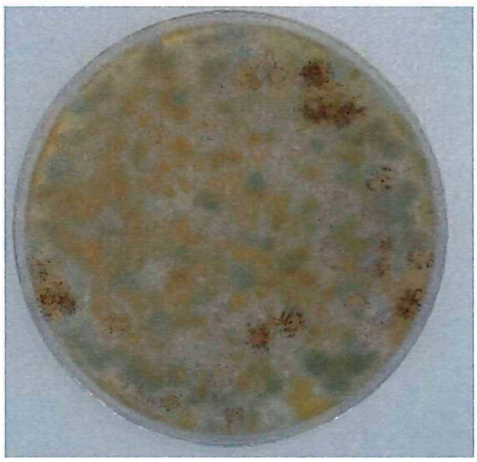

Figure 1: Viability control after after 14 days of incubation

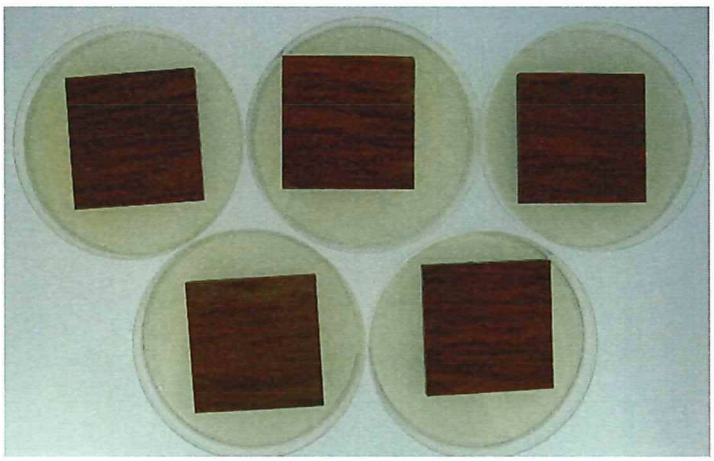

Figure 2: Test specimens after 28 days of incubation

Evaluation

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

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Dipl.-Ing. Kordula Jacobs
Person in charge