

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, 25/06/2018

Test Report 2218002-A1/pos.3

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. 3: Laboratory test of resistance against blue-stain fungi according
to EN 152 after artificial weathering by QUV

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 Unit Biological Testing

This report is an actualization of report 2218002/pos.3 from 20/06/2018 (Complementation of pictures of specimens). 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 blue-stain fungi according to EN 152 after artificial weathering by QUV

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: EN 152:2011
 Test fungi: *Aureobasidium pullulans* DSM 3497
Sydowia polyspora DSM 3498
 Specimens: 110 mm × 40 mm × 10 mm (length × width × thickness), each 6 test replicates with and without weathering before the fungal test
 Reference timber: Scots pine sapwood (*Pinus sylvestris*)
 Weathering: 4 weeks QUV weathering with cycle 1 according to EN 152 (Annex F) in the period 12 March 2018 – 9 April 2018
 Sterilization: ionising irradiation ≥ 25 kGy
 Incubation period: 6 weeks (25 March 2018 - 6 June 2018)

Results

The summarized results are given in table 1. Single values are not listed, because they were identical for each six replicates. Figure 1 shows the surface of specimens after different test steps.

Table 1: Evaluation of the specimens after the fungal test (each 6 replicates)

material	evaluation of the specimens	
	surface*	interior (after cutting)
test specimens with prior weathering	0	not blue-stained over the entire cross section
test specimens without prior weathering	0	not blue-stained over the entire cross section
reference specimens	3	completely blue-stained

* Rating of surface of the specimens acc. to EN 152 (visual evaluation with up to 9x magnification):

- 0 Not blue stained: no blue stain can be detected visually on the surface.
- 1 Insignificantly blue stained: the surface exhibits only individual small blue stained spots none larger than 1,5 mm in width and 4 mm in length, and not more than 5 in number.
- 2 Blue-stained: the surface is continuously blue stained up to a maximum of one third, or blue stained partially or in streaks up to half the total area.
- 3 Strongly blue stained: more than one third of the surface is continuously blue stained or more than half is partially blue stained.



Figure 1: Surface of test specimens (left side) and reference specimens of pine sapwood (right side), before (A) and after (B) 4 weeks of QUV weathering and after 6 weeks of attack by blue-stain fungi (C)

Evaluation

The test was valid because the reference specimens of Scots pine sapwood were completely and permanently blue-stained after the fungal attack (rating 3 in the surface evaluation and entirely blue-stained interior).

The test material was not infested by blue-stain fungi and achieved the rating "0" in the surface evaluation. Also, there was no fungal growth in the interior of the material.

Conclusion: The material is resistant against blue-stain fungi also after 4 weeks artificial weathering.

Dresden, 25/06/2018

K. Jacobs

.....
Dipl.-Ing. Kordula Jacobs
Person in charge