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Dresden, 10/09/2018

Test Report 2218002/pos.2

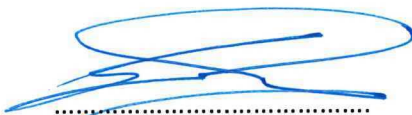
Client: Zhejiang Xinhaiye Bamboo Technology Co., Ltd.
Xikou Industrial Zone, Longyou County,
Zhejiang, China

Date of order: 07/03/2018

Order: Pos. 2: ENV 807/EN 350 (fungal resistance: soft rot fungi)
Laboratory test of durability against wood decay soft rot fungi
according to EN 350 and ENV 807 (specifications in CEN/TS 15083-2)

Contractor: Entwicklungs- und Prüflabor Holztechnologie GmbH
Laboratory Unit Biological Testing
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Engineer in charge: Dipl.-Ing. Kordula Jacobs



Dr. Wolfram Scheiding
Head of Laboratory Unit Biological Testing

This report contains 3 pages and an appendix with 2 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 durability against durability against wood decay soft rot fungi and other soil-born microorganisms according to EN 350 and ENV 807 (specifications in CEN/TS 15083-2).

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: Durability test according to CEN/TS 15083-2:2005; evaluation according to EN 350:2016
 Soil: Floraself (Hornbach, Germany), Charge: 1121707030213:13
 Specimens' dimensions: approx. (100 × 10 × 5) mm³
 Reference wood: beech (*Fagus sylvatica* L.); mean raw density after kiln drying (652 ± 19) kg/m³
 Replicates: 30 test specimens (10 per test vessel) and 18 reference specimens (6 per test vessel)
 Test vessels: three buckets with each 2 kg soil
 Ageing procedure: water leaching according to EN 84:1997 (14/03/2018-27/03/2018)
 Fungal attack period: 16 weeks (17/04/2018-15/08/2018)

Validity of test results

The test was valid due to a mean dry mass loss of 39.8 % for the beech reference specimens. The minimum requirement of the test standard is 20.0 %.

Results

Mean dry mass losses are summarized in table 1. The corresponding single values are listed in the appendix. The durability classification based on x-values is given in table 2.

Table 1: Dry mass loss

specimens	dry mass loss [%]		
	mean value	median value	x-value*
test specimens	3.1 ± 0.5	3.1	0.08
reference specimens	39.8 ± 6.9	40.8	-

*x-value = median value of the dry mass loss of test specimens/median value of the dry mass loss of reference specimens

Table 2: Durability classes as specified in EN 350:2016, determined by soft rot lab test acc. to CEN/TC 15083-2

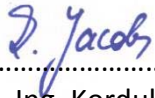
durability class (DC)	description	results of lab test expressed as x values*
DC 1	very durable	$x < 0.10$
DC 2	durable	$0.10 < x \leq 0.20$
DC 3	moderately durable	$0.20 < x \leq 0.40$
DC 4	slightly durable	$0.45 < x \leq 0.80$
DC 5	not durable	$x \leq 0.80$

*x-value = median value of the dry mass loss of test specimens/median value of the dry mass loss of reference specimens

Evaluation

In accordance to EN 350 classification for wood decay soft rot fungi (relevant for applications in use class 4), the test material is assigned to durability class 1 (very durable).

Dresden, 10/09/2018



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Dipl.-Ing. Kordula Jacobs
Person in charge

Appendix: Single values of the durability test against soft rot fungi using soil (Appendix to test report 2218002/pos.2)

Single values of the durability test against soft rot fungi using soil (Appendix to test report 2218002/pos.2)

Table A1: Mass loss of the test product (test period 17/04/2018-13/08/2018)

No. of specimen	Dry mass loss [%]	Wood moisture content after removal [%]
1	3.66	30.43
2	3.28	28.06
3	3.17	30.58
4	3.19	30.31
5	3.81	30.11
6	3.08	30.79
7	3.14	25.46
8	2.78	29.89
9	2.83	33.01
10	3.23	26.40
11	2.69	28.83
12	4.46	28.92
13	2.87	30.48
14	3.64	28.62
15	2.98	27.15
16	3.15	28.22
17	2.95	32.27
18	1.89	28.49
19	2.89	29.92
20	3.39	26.83
21	2.76	28.21
22	2.81	26.44
23	3.16	27.99
24	3.25	28.75
25	2.48	27.30
26	2.52	27.40
27	2.74	29.69
28	3.15	30.24
29	3.32	29.13
30	2.98	27.96
Mean values	3.07	28.93
Median values	3.11	28.79

Table A2: Mass loss of the reference wood (test period 17/04/2018-13/08/2018)

No. of specimen	Dry mass loss [%]	Wood moisture content after removal [%]
V1	21.96	145.63
V2	40.13	235.64
V3	39.32	220.92
V4	38.93	226.37
V5	43.59	206.25
V6	39.54	197.16
V7	33.85	186.51
V8	43.54	213.43
V9	46.91	210.47
V10	27.93	161.67
V11	42.27	199.49
V12	41.43	237.77
V13	37.58	187.96
V14	41.97	169.90
V15	42.58	179.78
V16	44.29	208.07
V17	37.61	145.21
V18	53.14	250.34
Mean values	39.81	199.03
Median values	40.78	202.87