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TEST REPORT

268902 / 1

Revision:	0
Date received:	01/04/19
Date of test:	21/05/19
Date of issue:	27/09/19

Sample name: thermally modified red oak, Quercus rubra

Natural durability of solid wood against wood-destroying fungi - Part 1: Basidiomycetes UNI CEN/TS 15083-1:2005

Timber species:	thermally modified red oak, as declared by the orderer
Origin:	not specified
Description of timber:	not applicable
90% earlywood in growth ring	not applicable
Sampling:	done by the orderer
Density of timber:	663 kg/m3
Reference timber species:	Pinus sylvestris sapwood, Fagus sylvatica
Ageing procedure applied:	none
Method of sterilisation:	gamma irradiation (25kGy)
Species and strain number of test fungi:	*Coniophora puteana DSM 3085; Trametes versicolor DSM 3086*
Duration of exposure to fungi:	from 05/06/2019 to 25/09/2019
Mean mass loss of reference timber:	see table 1
Moisture content of test timber:	see table 1
Median mass loss of test timber:	see table 2
Provisional durability class:	1: very durable
Officer in charge of testing:	Dr. Elena Conti

Notes:

- The provisional durability class was attributed in accordance with Annex D, Table D.1 of CEN TS 15083-1.

Durability class	Description	% loss in mass
1	Very durable	≤ 5
2	Durable	> 5 to ≤ 10
3	Moderately durable	> 10 to ≤ 15
4	Slightly durable	> 15 to ≤ 30
5	Not durable	> 30

- The interpretation and practical conclusions that can be drawn from this test report require a specific knowledge of timber.

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Managing Director
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Table 1
Percentage mass loss of reference wood specimens

Pinus sylvestris with Coniophora puteana	mass loss (%)	Fagus sylvatica with Trametes versicolor	mass loss (%)
1	35,55	1	25,35
2	44,02	2	24,30
3	32,27	3	21,78
4	27,84	4	25,63
5	36,98	5	19,66
6	35,46	6	25,57
7	33,67	7	18,25
8	29,39	8	17,68
9	41,66	9	24,50
10	24,18	10	24,79
mean	**34,10**	**mean**	**22,75**

Note: test valid

Table 2
Moisture content of test wood specimens after exposure to fungi

with Coniophora puteana	humidity (%) mean / lowest / highest	with Trametes versicolor	humidity (%) mean / lowest / highest
30 specimens	21 / 12 / 42	30 specimens	43 / 10 / 68

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Table 3
Percentage mass loss of test wood specimens exposed to fungi

with Coniophora puteana	mass loss (%)	with Trametes versicolor	mass loss (%)
1	-0,59	1	3,31
2	0,51	2	4,84
3	1,35	3	-0,28
4	0,58	4	2,05
5	-0,62	5	1,11
6	-0,77	6	5,25
7	1,27	7	7,29
8	0,10	8	1,12
9	0,02	9	4,37
10	1,15	10	0,90
11	-0,47	11	5,78
12	-0,64	12	5,49
13	-0,26	13	3,39
14	1,19	14	1,21
15	0,69	15	4,59
16	0,33	16	3,08
17	1,17	17	3,78
18	-0,41	18	4,49
19	0,09	19	5,95
20	-0,11	20	2,21
21	-0,42	21	3,61
22	0,14	22	5,40
23	0,04	23	5,43
24	0,02	24	2,26
25	0,87	25	0,42
26	0,43	26	5,58
27	0,22	27	1,63
28	1,11	28	2,81
29	1,12	29	1,30
30	-0,54	30	0,66
median	**0,12**	**median**	**3,35**

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