

TEST REPORT

268902 / 1

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

THERMORY AS
PETERBURI TEE 44
11415 TALLINN
EE - ESTONIA

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.

This document is validated by digital signature and time stamping in accordance with the Italian laws and the European Directives which regulate the electronic signature systems.

Managing Director
Dr. Andrea Givon

The sample name and, when relevant, its description, are given by the orderer, and CATAS does not assume responsibility on this matter. This test report relates to the sample submitted for the test and no others. Additions, deletions or alterations are not permitted. This test report must always be reproduced in its entirety. Unless otherwise required by standards and technical specifications or agreed with the customer, any declarations of conformity made by CATAS are based on the comparison between results and reference values, where the confidence intervals of the measures are not taken into account. Unless otherwise stated, sampling is made by the customer; in this case the test results are referred to the sample as received.

TEST REPORT

268902 / 1 rev. 0

Date of issue:

27/09/19

Sample name:

thermally modified red oak, Quercus rubra

Table 1
Percentage mass loss of reference wood specimens

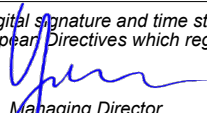
Pinus sylvestris with Coniophora puteana	mass loss (%)	Fagus sylvatica with Trametes versicolor	mass loss (%)
1	35,55	1	25,35
2	44,02	2	24,30
3	32,27	3	21,78
4	27,84	4	25,63
5	36,98	5	19,66
6	35,46	6	25,57
7	33,67	7	18,25
8	29,39	8	17,68
9	41,66	9	24,50
10	24,18	10	24,79
mean	34,10	mean	22,75

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

This document is validated by digital signature and time stamping in accordance with the Italian laws and the European Directives which regulate the electronic signature systems.


Mahaging Director
Dr. Andrea Giavon

TEST REPORT

268902 / 1 rev. 0

Date of issue:

27/09/19

Sample name:

thermally modified red oak, Quercus rubra

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

This document is validated by digital signature and time stamping in accordance with the Italian laws and the European Directives which regulate the electronic signature systems.

Managing Director
Dr. Andrea Giavon