

THE INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 2

Testing Methodology and Assessment

Scots pine

**Natural durable timber – Basidiomycete test results
IRG/WP Durability Database**

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Disclaimer

The responsibility for the data presented in this paper falls to the authors exclusively. The data presented are raw test data and intended to get used for scientific purposes only.

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AIMS AND SCOPE OF THE IRG-WP DURABILITY DATABASE

The overall aim of the IRG-WP durability data base is the allocation of wood durability test results for comparative studies and re-analyses. The data base shall serve as pool for service life prediction and modelling and shall contribute to an enhanced understanding of wood durability. It is an open web-based platform for scientific exchange in the field of wood durability and wood protection.

It is NOT the aim of the data base to promote or denigrate any product or material. The data base will contain raw data only; no statistical evaluation will be included. Thus it will be the exclusive responsibility of the user to interpret the test results published in the data base.

For each data set, the full range of information about the test method, the test material, and other relevant parameters, is required to guarantee reliability of the data. For this reason every data set submitted is reviewed and checked for completeness of all relevant data.

The database allows submission of assessment data from all kinds of standardized and non-standardized wood durability tests.

Records of the IRG/WP Durability data base shall be cited as in the following example:

Brischke C., Meyer L. (2013) Douglas fir. Natural durable timber - Field test results. IRG/WP Durability Database. Stockholm: The International Research Group on Wood Protection, IRG/WP/DDB 13-00001.

INFORMATION

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TESTED TIMBER

Trade name	Scots pine heartwood
Botanical name	<i>Pinus sylvestris</i> L.
Origin	Germany
Number of replicates	30

REFERENCE TIMBER

Trade name	Scots pine sapwood
Botanical name	<i>Pinus sylvestris</i> L.
Origin	Germany
Number of replicates	40

TEST METHODS

Standard method	EN 113 (1996)
Alteration of standard	16 weeks exposure
Leaching/Ageing procedure	EN 84 (1997)
Specimen dimension and shape	50 x 25 x 15 mm ³

RESULTS

Assessment

Material	<i>Pinus sylvestris</i> L.					
Test fungus	<i>Poria placenta (Rhodonia placenta)</i>					
Measure	Relative mass loss	Final moisture content	Oven-dry density			
Replicate ID	[%]	[%]	[kg/m ³]			
1	22.3	123.0	466			
2	20.2	75.1	454			
3	21.2	103.8	497			
4	22.5	129.6	464			
5	21.5	145.4	495			
6	27.3	64.7	475			
7	22.2	152.1	481			
8	24.2	135.0	484			
9	22.6	114.6	462			
10	22.7	115.7	473			
11	12.0	91.1	472			
12	21.1	126.7	493			
13	13.9	126.2	481			
14	21.8	142.7	483			
15	21.9	130.0	471			
16	21.5	118.1	495			
17	21.4	119.1	494			
18	11.9	58.7	460			
19	22.9	125.9	459			
20	12.5	104.2	463			
21	12.3	99.4	476			
22	20.3	113.3	524			
23	22.7	124.5	459			
24	29.4	68.0	452			
25	10.6	105.0	476			
26	23.5	127.9	456			
27	21.6	108.3	493			
28	16.1	84.7	510			
29	20.9	117.2	503			
30	14.2	66.7	499			

Assessment - Reference

Material	<i>Pinus sylvestris</i> L. sapwood					
Test fungus	<i>Postia placenta</i> (<i>Rhodonía placenta</i>)					
Measure	Relative mass loss	Final moisture content	Oven-dry density			
Replicate ID	[%]	[%]	[kg/m³]			
1	23.3	105.9	458			
2	22.1	108.0	483			
3	19.6	42.2	473			
4	26.9	130.8	467			
5	19.6	43.1	455			
6	23.8	99.4	472			
7	28.1	70.5	475			
8	23.4	82.3	452			
9	26.0	98.8	480			
10	27.4	74.7	478			
11	22.2	144.1	469			
12	30.1	81.1	459			
13	28.1	67.5	489			
14	19.3	67.4	484			
15	16.6	80.6	490			
16	22.8	171.0	456			
17	33.3	65.6	454			
18	22.6	126.6	461			
19	22.6	142.0	485			
20	16.5	72.0	488			
21	22.3	131.5	484			
22	24.4	115.3	459			
23	21.6	132.6	491			
24	20.2	73.3	477			
25	21.7	79.6	477			
26	24.3	126.3	471			
27	12.1	91.4	476			
28	19.1	67.5	506			
29	21.3	124.9	492			
30	19.8	68.6	495			

Material	<i>Pinus sylvestris</i> L. sapwood					
Test fungus	<i>Postia placenta</i> (<i>Rhodonía placenta</i>)					
Measure	Relative mass loss	Final moisture content	Oven-dry density			
Replicate ID	[%]	[%]	[kg/m ³]			
31	23.3	139.6	445			
32	24.6	110.4	460			
33	22.1	137.4	465			
34	23.7	115.3	453			
35	17.2	68.3	487			
36	29.4	82.8	465			
37	22.7	119.2	457			
38	24.0	122.7	450			
39	10.7	105.3	466			
40	10.7	113.4	474			