

THE INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 2

Testing Methodology and Assessment

European beech

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

Bongers, F.; Gellerich, A.; Bollmus, S.

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.

**IRG SECRETARIAT
Box 5609
SE-114 86 Stockholm
Sweden
www.irg-wp.org**

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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AUTHORS

Corresponding author

Ferry Bongers

Email ferry.bongers@accsysplc.com

Institution Accsys Technologies

Street/PO Box PO Box 2147

City Arnhem

Zip Code 6802 CC

Country Netherlands

Author 2

Antje Gellerich

Email Antje.Gellerich@forst.uni-goettingen.de

Institution Georg-August-Universität Göttingen

Street/PO Box Büsgenweg 4

City Göttingen

Zip Code D-37077

Country Germany

Author 3

Susanne Bollmus

Email sbollmu@gwdg.de

Institution Georg-August-Universität Göttingen

Street/PO Box Büsgenweg 4

City Göttingen

Zip Code D-37077

Country Germany

TESTED TIMBER

Trade name	European beech
Botanical name	<i>Fagus sylvatica</i> L.
Origin	Germany
Number of replicates	30

TEST METHODS

Standard method	CEN-TS 15083-1 (2005)
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>Fagus sylvatica</i> L.					
Test fungus	<i>Postia placenta</i> (<i>Rhodonina placenta</i>)			<i>Trametes versicolor</i>		
Measure	Relative mass loss	Final moisture content	Oven-dry density	Relative mass loss	Final moisture content	Oven-dry density
Replicate ID	[%]	[%]	[kg/m ³]	[%]	[%]	[kg/m ³]
1	14.0	89.6	752	28.1	110.5	711
2	20.6	72.8	701	29.1	70.7	703
3	17.5	78.2	665	33.5	65.2	705
4	18.3	83.9	663	25.1	62.8	686
5	16.0	76.4	692	29.4	55.4	755
6	18.2	79.8	701	26.0	71.1	700
7	15.6	92.7	663	32.1	55.7	699
8	20.4	70.1	696	24.1	54.1	670
9	19.7	68.1	661	31.2	62.6	710
10	15.0	83.8	684	32.0	53.7	717
11	20.4	67.8	691	24.7	49.1	666
12	13.4	90.0	753	25.5	56.5	681
13	20.6	76.3	661	27.7	61.6	753
14	15.9	82.1	682	28.8	58.5	749
15	14.5	88.2	700	33.2	59.9	752
16	19.3	76.5	694	26.3	53.0	685
17	19.3	75.9	676	25.4	53.7	706
18	14.8	98.8	694	26.8	53.2	684
19	19.5	64.9	666	23.2	47.0	695
20	15.3	93.5	698	27.7	55.1	694
21	19.7	76.6	679	23.2	47.1	668
22	14.9	83.3	745	26.2	54.9	745
23	19.7	79.9	676	31.7	57.0	664
24	17.5	86.7	665	24.5	48.0	696
25	18.3	83.4	669	26.1	53.7	661
26	16.5	80.6	687	27.4	49.7	710
27	17.0	80.2	715	29.6	88.9	666
28	16.5	82.7	754	25.5	46.1	684
29	20.4	61.4	692	29.0	61.1	697
30	13.5	100.0	698	29.1	58.0	701