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THE INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 2 Testing Methodology and Assessment

Scots pine sapwood

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

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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 sapwood
Botanical name	*Pinus sylvestris* L.
Origin	Germany
Number of replicates	Depends on test fungus

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	***Pinus sylvestris* L.**					
Test fungus	***Coniophora puteana***			***Gloeophyllum trabeum***		
Measure	**Relative mass loss**	**Final moisture content**	**Oven-dry density**	**Relative mass loss**	**Final moisture content**	**Oven-dry density**
Replicate ID	[%]	[%]	[kg/m³]	[%]	[%]	[kg/m³]
1	13.7	49.1	435	6.1	79.2	558
2	23.0	46.5	446	14.0	68.0	461
3	9.8	39.5	582	11.7	73.8	550
4	19.8	45.9	465	19.8	60.9	406
5	24.1	46.9	454	20.4	50.2	420
6	36.3	54.5	450	5.5	81.8	470

Material	***Pinus sylvestris* L.**					
Test fungus	***Postia placenta (Rhodonia placenta)***			***Serpula lacrymans***		
Measure	**Relative mass loss**	**Final moisture content**	**Oven-dry density**	**Relative mass loss**	**Final moisture content**	**Oven-dry density**
Replicate ID	[%]	[%]	[kg/m³]	[%]	[%]	[kg/m³]
1	9.6	60.3	577	26.7	45.4	430
2	11.5	54.8	543	26.6	46.3	493
3	12.3	67.6	486	32.8	47.7	520
4	14.7	65.6	435	19.9	41.6	438
5	13.1	59.6	616	30.2	48.0	458
6	9.5	62.6	473	30.5	49.3	447

Material	***Pinus sylvestris* L.**					
Test fungus	***Trametes versicolor***			***Donkioporia expansa***		
Measure	**Relative mass loss**	**Final moisture content**	**Oven-dry density**	**Relative mass loss**	**Final moisture content**	**Oven-dry density**
Replicate ID	[%]	[%]	[kg/m³]	[%]	[%]	[kg/m³]
1	6.0	33.0	432	6.0	45.9	401
2	5.5	33.2	456	7.8	50.2	465
3	4.2	31.8	548	6.3	52.7	425