

THE INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 2

Testing Methodology and Assessment

Scots pine

**Natural durable timber – Field 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

Submission Date 19.01.2016

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TESTED TIMBER

Trade name Scots pine

Botanical name *Pinus sylvestris* L.

Origin Sweden

Number of replicates 10

Timber quality heartwood

REFERENCE TIMBER

Trade name	Scots pine sapwood
Botanical name	<i>Pinus sylvestris</i> L.
Origin	Sweden
Number of replicates	10

TEST METHODS

Standard method	Graveyard test - EN252 (1990)
Reference	EN 252 (1990) Field test method for determining the relative protective effectiveness of a wood preservative in ground contact. European Committee for Standardization This test was initiated with financial support from The Swedish Forest Industries Federation. The first progress report was published in 2003: Edlund, M.-L. (2003) Beständighet hos miljöanpassat träskydd. Delrapport 1. SP Rapport 2003:26
Specimen dimension and shape	25 x 50 x 500 mm ³
Rating scheme	0 (sound), 1 (slight decay), 2 (moderate decay), 3 (severe decay), 4 (failure) after EN 252 (1990)
Address of test site	SP field test site, SE-501 15 Borås, Sweden
Geographic coordinates (optional)	57°71'48,95"N, 12°88'73,54"E
Start of test	2001
Last evaluation	2014
Status of test	still running

RESULTS

Assessment

Material	<i>Pinus sylvestris</i> L.					
Date	2002	2003	2004	2005	2006	2007
Assessment	1	2	3	4	5	6
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	2	2	4	4	4	4
2	1	2	4	4	4	4
3	1	1	4	4	4	4
4	1	1	3	1	3	3
5	1	1	2	1	2	2
6	1	1	2	1	3	3
7	1	1	1	2	2	2
8	0	0	1	1	2	2
9	1	1	4	4	4	4
10	1	1	4	4	4	4

Material	<i>Pinus sylvestris</i> L.					
Date	2008	2009	2010	2011	2012	2013
Assessment	7	8	9	10	11	12
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4	4	4	4	4	4
2	4	4	4	4	4	4
3	4	4	4	4	4	4
4	4	4	4	4	4	4
5	3	3	3	4	4	4
6	3	3	3	3	3	3
7	3	3	3	3	3	3
8	2	2	3	3	3	3
9	4	4	4	4	4	4
10	4	4	4	4	4	4

Material	<i>Pinus sylvestris</i> L.					
Date	2014					
Assessment	13	14	15	16	17	18
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4					
2	4					
3	4					
4	4					
5	4					
6	3					
7	3					
8	3					
9	4					
10	4					

Assessment Reference

Material	<i>Pinus sylvestris</i> L. sapwood					
Date	2002	2003	2004	2005	2006	2007
Assessment	1	2	3	4	5	6
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4	4	4	4	4	4
2	1	2	4	4	4	4
3	1	2	4	4	4	4
4	1	2	4	4	4	4
5	2	4	4	4	4	4
6	2	4	4	4	4	4
7	1	1	4	4	4	4
8	1	2	3	4	4	4
9	4	4	4	4	4	4
10	1	2	4	4	4	4

Material	<i>Pinus sylvestris</i> L. sapwood					
Date	2008	2009	2010	2011	2012	2013
Assessment	7	8	9	10	11	12
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4	4	4	4	4	4
2	4	4	4	4	4	4
3	4	4	4	4	4	4
4	4	4	4	4	4	4
5	4	4	4	4	4	4
6	4	4	4	4	4	4
7	4	4	4	4	4	4
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9	4	4	4	4	4	4
10	4	4	4	4	4	4

Material	<i>Pinus sylvestris</i> L. sapwood					
Date	2014					
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Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4					
2	4					
3	4					
4	4					
5	4					
6	4					
7	4					
8	4					
9	4					
10	4					

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- Edlund M.-L. (2004) Durability of some alternatives to preservative-treated wood. Stockholm: The International Research Group on Wood Protection, IRG/WP/04-30353
- Edlund M.-L., Jermer J. (2007) Durability of some alternatives to preservative-treated wood. Stockholm: The International Research Group on Wood Protection, IRG/WP/07-30442
- Larsson Brelid P., Edlund M.-L. (2013) Durability of some alternatives to CCA-treated wood. Results after 11 years exposure. Stockholm: The International Research Group on Wood Protection, IRG/WP/13-30633