IRG/WP/DDB 15-00050

THE INTERNATIONAL RESEARCH GROUP ON WOOD PROTECTION

Section 2 Testing Methodology and Assessment

Norway spruce

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

Humar, M.

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

Submission Date	15.12.2015

AUTHORS

Corresponding author	Miha Humar
Email	Miha.humar@bf.uni-lj.si
Institution	University of Ljubljana, Biotechnical Faculty
Street/PO Box	Jamnikarjeva 101
City	Ljubljana
Zip Code	1000
Country	Slovenia

TESTED TIMBER

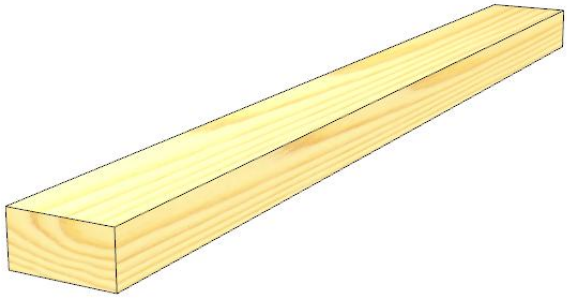
Trade name	Norway spruce
Botanical name	*Picea abies* Karst.
Origin	Slovenia
Number of replicates	10

REFERENCE TIMBER

Trade name	None
Botanical name	
Origin	
Number of replicates	

TEST METHODS

Non-standard method	Horizontal double layer (Rapp and Augusta 2004)

Reference	Rapp A.O., Augusta U. (2004) The full guideline for the “double layer test method” – A field test method for determining the durability of wood out of ground. Stockholm: The International Research Group on Wood Protection, IRG/WP/04-20190.
Specimen dimension and shape	25 x 50 x 500 mm³
Sketch of specimen (optional)	
Rating scheme	0 (sound), 1 (slight decay), 2 (moderate decay), 3 (severe decay), 4 (failure) after EN 252 (1989)
Address of test site	University Ljubljana Jamnikarjeva 101 SI-1000 Ljubljana Slovenia
Geographic coordinates (optional)	46°2'55,57"N, 14°28'44,66"E
Start of test	June 2008
Last evaluation	June 2015
Status of test	still running

RESULTS

Assessment

Material	***Picea abies* Karst.**					
Date	**03.06.2009**	**07.06.2010**	**31.05.2011**	**02.06.2012**	**02.07.2013**	**10.06.2014**
Assessment	1	2	3	4	5	6
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	0	1	1	1	1	2
2	0	0	1	2	3	3
3	0	0	0	3	3	3
4	0	1	1	2	3	3
5	0	0	1	3	3	3
6	0	0	0	2	2	2
7	0	0	0	2	2	2
8	0	0	0	1	1	1
9	0	0	0	2	2	2
10	0	0	0	1	2	2

Material	***Picea abies* Karst.**					
Date	**03.06.2015**					
Assessment	7	8	9	10	11	12
Replicate ID	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]	[0-4]
1	4					
2	3					
3	3					
4	3					
5	3					
6	2					
7	2					
8	1					
9	2					
10	2					

Decay types

Material	***Picea abies* Karst.**					
Date	**03.06.2009**	**07.06.2010**	**31.05.2011**	**02.06.2012**	**02.07.2013**	**10.06.2014**
Assessment	1	2	3	4	5	6
Replicate ID						
1		B	B	B	B	B
2			B	B	B	B
3				B	B	B
4		B	B	B	B	B
5			B	B	B	B
6				B	B	B
7				B	B	B
8				B	B	B
9				B	B	B
10				B	B	B

Material	***Picea abies* Karst.**					
Date	**03.06.2015**					
Assessment	7	8	9	10	11	12
Replicate ID						
1	B					
2	B					
3	B					
4	B					
5	B					
6	B					
7	B					
8	B					
9	B					
10	B					

W = White rot, B = Brown rot, S = Soft rot