

# Test Report

EN 330

Report No.: 104678-2 2026



DANISH  
TECHNOLOGICAL  
INSTITUTE

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**Material:** Teknol Aqua 1411-01. Dipping app. 90 g/m<sup>2</sup>  
Antistain Aqua 5200-00. Spraying 175 (157.5-192.5) g/m<sup>2</sup>  
Aquatop 2600-82. Spraying 200 (180-220) g/m<sup>2</sup>

**Sampling:** The test material was sampled by the client and received at the Danish Technological Institute on 28-11-2017.

**Method:** EN 330 (2014): *Wood preservatives – Field test method for determining the relative protective effectiveness of a wood preservative for use under a coating and exposed out-of-ground contact: L-joint method.*  
Deviation from method: Test specimens exposed in Denmark only 10 replicates for non-destructive evaluation is used. Additionally, the test also includes Scots pine heartwood.

**Period:** The testing was carried out from 15-12-2017 to 19-04-2026.  
The weathering took place from 22-04-2018 to 19-04-2026 at Danish Technological Institute test sight, Taastrup, Denmark and Borneo, Malaysia. The testing is ongoing. *The 2020 evaluation in Malaysia was cancelled due to the Covid-19 pandemic.*

**Result:** V<sup>n</sup>: Median rating of specimens.

Treatment	Type of sample	Exposure period - years							
		1*	2*	3*	4*	5*	6*	7*	8*
Test system	Non-destructive - V <sup>e</sup>	-/0/0/0	-/#/0/0	-/1/1/0	-/2/1/0	-/2/1/0	-/1*/1½/0	-/1/1½/0	-/2/1½/0
	Destructive - V <sup>e</sup>	-/0/-/-	-/#/-/-	-/0/-/-	-/0/-/-	-/1/-/-	-/1/-/-	-/1/-/-	-/1/-/-
	Destructive - V <sup>i</sup>	na	na	na	-/1/-/-	na	na	-/2/-/-	ended
Untreated (Topcoat: ICP)	Non-destructive - V <sup>e</sup>	0/0/0/0	#/#/0/0	1/0/0/0	1/0/0/0	2/1/1/0	2/2/2/0	4/3/2/1	4/3/3/1
	Destructive - V <sup>e</sup>	0/0/-/-	#/#/-/-	1/0/-/-	1/0/-/-	3/1/-/-	4/2/-/-	4/2/-/-	ended
	Destructive - V <sup>i</sup>	na	na	na	1/1/-/-	na	na	4/3/-/-	ended
1% TBTO (Topcoat: ICP)	Non-destructive - V <sup>e</sup>	0/-/0/-	#/-/0/-	0/-/0/-	0/-/0/-	1/-/0/-	1/-/½/-	2/-/1/-	3/-/2/-
	Destructive - V <sup>e</sup>	0/-/-/na	#/-/-/na	0/-/-/na	0/-/-/na	1/-/-/na	1/-/-/na	2/-/-/na	ended
	Destructive - V <sup>i</sup>	na	na	na	1/-/-/na	na	na	2½/-/-/na	ended

V<sup>e</sup>: Evaluation of the external surfaces. V<sup>i</sup>: Evaluation of the internal condition. na: Not assessed.

\* Pine sapwood MY/pine heartwood MY/pine sapwood DK/pine heartwood DK

- no test specimens. # Assessment from MY was cancelled due to the Covid-19 pandemic

**Note:** The interpretation and practical conclusions that can be drawn from a test report demand a specialized knowledge of the subject of wood preservation and for these reasons this test report cannot of itself constitute an approval certificate.

**Terms:** This test was conducted accredited in accordance with international requirements ISO/IEC 17025:2017 and in accordance with the General Terms and Conditions of Danish Technological Institute. The test results solely apply to the tested item. This test report may be quoted in extract only if Danish Technological Institute has granted its written consent. This document is only valid with a digital signature from Danish Technological Institute. The date of issue appears from the digital signature Approved and signed by:

**Date/place  
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TEST Reg.no. 2

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## Treatment and Exposure

<b>Product under test:</b>	Teknol Aqua 1411-01. Containing 0.6% propiconazole and 0.3% IPBC. Antistain Aqua 5200-00 Aquatop 2600-82 The product has been chemical analysed by Danish Technological Institute.					
<b>Treatment:</b>	Teknol Aqua 1411-01. Impregnation, dipping on 15-12-2017  Topcoat treatment: Antistain Aqua 5200-00. Primer, spraying on 08-02-2018. Spraying 157.5-192.5 g/m <sup>2</sup> . Aquatop 2600-82. Topcoat, spraying on 09-03-2018. Spraying 180-220 g/m <sup>2</sup> .					
<b>Dilutions:</b>	Ready-to-use product.					
<b>Wood Species:</b>	Scots pine ( <i>Pinus sylvestris</i> , L.), sapwood. Average density: 569.6 kg/m <sup>3</sup> . Scots pine ( <i>Pinus sylvestris</i> , L.), heartwood. Average density: 590.5 kg/m <sup>3</sup> .					
<b>Period:</b>	The testing was carried out from 15-12-2017 to 19-04-2026. The specimens were air-dried in a climate chamber at 20° C and 65% RH prior and after treatment. All specimens were exposed from 22-04-2018.					
<b>No. of Replica:</b>	10 of Scots pine, sapwood exposed in Denmark 20 of Scots pine, heartwood exposed in Malaysia and 10 exposed in Denmark					
<b>Reference product:</b>	1% TBTO, dipping for 3 min. Treatment carried out 19-12-2017. Topcoat treatment with an alkyd varnish (ICP) according to EN 927-2012. Brushing 135-165 g/m <sup>2</sup> . Treatment carried out 20-12-2017, 21-12-2017 and 22-12-2017.					
<b>Exposure site Taastrup:</b>	Danish Technological Institute, Taastrup, Denmark. 55°39'36.4"N; 12°16'34.5"E. Elevation: about 34 m. Average temperatures; maximum: 9-20°C, minimum: -2-5°C. Average annual precipitation: about 672 mm. Humidity: 70-80%. The test site is located in an urban pasture ecosystem without high vegetation.					
<b>Exposure site Malaysia:</b>	University Malaysia Sarawak (UNIMAS), Borneo, Malaysia. 1°27'57.2"N; 110°26'58.9"E. Elevation: about 15.5 m. Average temperatures; maximum: 27-35°C, minimum: 22-25.5°C. Average annual precipitation: about 3900 mm. Humidity: 80-90%. The test site is located in a secondary tropical forest approaching peat swamp forest ecosystem surrounded by 15-20 m high trees.					
<b>Evaluation Date:</b>	Year 1	Denmark	25-04-2019	Year 1	Malaysia	04-04-2019
	Year 2	Denmark	13-05-2020	Year 2	Malaysia	cancelled
	Year 3	Denmark	28-05-2021	Year 3	Malaysia	14-06-2021
	Year 4	Denmark	24-05-2022	Year 4	Malaysia	10-05-2022
	Year 5	Denmark	14-04-2023	Year 5	Malaysia	24-04-2023
	Year 6	Denmark	11-03-2024	Year 6	Malaysia	02-03-2024
	Year 7	Denmark	26-05-2025	Year 7	Malaysia	11-05-2025
	Year 8	Denmark	29-04-2026	Year 8	Malaysia	19-04-2026

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## Treatment and Exposure

### Evaluation – median fungal attack rating according to EN 330: 2014

<b>Table 1 Grading System</b>		
<b>Rating</b>	<b>Description</b>	<b>Definition</b>
0	Sound	No evidence of decay
1	Slight attack	Visible signs of decay, but no significant softening or weakening of the wood
2	Moderate attack	Areas of decay (softened, weakened wood); typical not more than 3 cm <sup>2</sup> and to a depth of 2 mm to 3 mm
3	Severe attack	Marked softening and weakening of the wood typical of fungal decay, typically more than 3 cm <sup>2</sup> affected and to a depth of 3 mm to 5 mm or more over a few cm <sup>2</sup>
4	Failure	Very severe and extensive rot; joint member(s) often capable of being easily broken

Note: Observations made on specimens for non-destructive inspection will often yield a lower rating than when surfaces created by sawing are available for evaluation.

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## Details on retention and evaluation data

Preservative:	Teknol Aqua 1411-01, Antistain Aqua 5200-00, Aquatop 2600-82		Pine heartwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year
661	69	104	0	-	2	2	2	2	2	3
662	116	93	0	-	1	2	2	2	3	3
663	78	65	0	-	2	2	2	2	2	2
664	113	69	0	-	2	2	2	1*	*	*
665	70	78	0	-	1	1	1	1	1	2
666	88	64	0	-	2	2	2	1	1	1
667	97	71	0	-	1	1	1	1	1	1
668	108	66	0	-	1	1	1	1	1	2
669	95	95	0	-	1	1	1	1	1	1
670	87	108	0	-	0	0	0	0	1	1
<b>Average/median</b>	<b>92/92</b>	<b>81/75</b>	<b>0/0</b>	<b>-/-</b>	<b>1.3/1</b>	<b>1.4/2</b>	<b>1.4/2</b>	<b>1.2/1</b>	<b>1.4/1</b>	<b>1.8/2</b>

\*. Sample attacked by insects. Last evaluation in 2024 and withdrawn from the test

Preservative:	Teknol Aqua 1411-01, Antistain Aqua 5200-00, Aquatop 2600-82		Pine heartwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year*	2 year*	3 year*	4 year*	5 year*	6 year*	7 year*	
671**	74	71	0	-	0	0				
672**	101	64	0	-	0	0				
673**	83	69	0	-	0	0				
674**	80	66	0	-	1	1				
675**	111	78	0	-	0	0				
676***	107	107	0	-	1	1	1	1	2	
677***	82	82	0	-	1	1	1	1	1	
678***	78	78	0	-	0	0	0	0	1	
679***	65	65	0	-	0	0	0	0	1	
680***	79	79	0	-	1	1	2	1	2	
<b>Average/median</b>	<b>86/81</b>	<b>86/81</b>	<b>0/0</b>	<b>-/-</b>	<b>0.4/0</b>	<b>0.4/0</b>	<b>0.8/1</b>	<b>0.6/1</b>	<b>1.4/1</b>	

\* Non-destructive

\*\* Selected for destructive evaluation 2022 after 4 years of exposure.

\*\*\* Selected for destructive evaluation 2025 after 7 years of exposure.

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## Details on retention and evaluation data

Preservative:	<i>Teknol Aqua 1411-01, Antistain Aqua 5200-00, Aquatop 2600-82</i>		Pine heartwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint destructive evaluation. V <sup>i</sup> : Evaluation of the internal conditions.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>
671	74	71	-	-	-	0			
672	101	64	-	-	-	1			
673	83	69	-	-	-	0			
674	80	66	-	-	-	1			
675	111	78	-	-	-	1			
676	107	107	-	-	-	-	-	-	2
677	82	82	-	-	-	-	-	-	2
678	78	78	-	-	-	-	-	-	1
679	65	65	-	-	-	-	-	-	1
680	79	79	-	-	-	-	-	-	2
<b>Average/median</b>	<b>86/81</b>	<b>86/81</b>	<b>-/-</b>	<b>-/-</b>	<b>-/-</b>	<b>0.6/1</b>	<b>-/-</b>	<b>-/-</b>	<b>1.6/2</b>

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## Details on retention and evaluation data

Preservative:	<i>Teknol Aqua 1411-01, Antistain Aqua 5200-00, Aquatop 2600-82</i>		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Denmark									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>							
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>	<b>8 year</b>
651	130	111	0	0	1	1	2	2	2	2
652	135	111	0	0	1	1	1	2	2	3
653	100	104	0	0	1	2	2	2	2	2
654	121	107	0	0	1	1	1	1	1	1
655	117	108	0	0	1	1	1	1	1	1
656	128	113	0	0	1	1	1	1	1	1
657	95	96	0	0	1	1	1	1	1	1
658	122	104	0	0	2	2	2	2	2	2
659	114	111	0	0	1	1	1	1	1	1
660	120	117	0	0	1	1	2	2	2	2
<b>Average/median</b>	<b>118/121</b>	<b>108/110</b>	<b>0/0</b>	<b>0/0</b>	<b>1.1/1</b>	<b>1.2/1</b>	<b>1.4/1</b>	<b>1.5/1.5</b>	<b>1.5/1.5</b>	<b>1.6/1.5</b>

Preservative:	<i>Teknol Aqua 1411-01, Antistain Aqua 5200-00, Aquatop 2600-82</i>		Pine heartwood							
Exposure date:	22-04-2018									
Test site:	Denmark									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>							
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>	<b>8 year</b>
681	106	72	0	0	0	0	0	0	0	0
682	102	67	0	0	0	0	0	0	0	0
683	93	71	0	0	0	0	0	1	1	1
684	104	66	0	0	0	0	0	0	0	0
685	108	71	0	0	0	0	0	0	0	0
686	63	102	0	0	0	0	0	1	1	1
687	77	75	0	0	0	0	0	0	0	0
688	104	79	0	0	0	0	0	0	1	1
689	70	104	0	0	0	0	1	1	1	1
690	116	104	0	0	0	0	0	0	0	0
<b>Average/median</b>	<b>94/103</b>	<b>81/74</b>	<b>0/0</b>	<b>0/0</b>	<b>0/0</b>	<b>0/0</b>	<b>0.1/0</b>	<b>0.3/0</b>	<b>0.4/0</b>	<b>0.4/0</b>

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## Details on retention and evaluation data

Preservative:	TBTO ( <i>Topcoat: ICP</i> )		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year
991	199	249	0	-	1	1	1	1	2	2
992	214	255	0	-	0	0	1	1	2	3
993	200	417	0	-	1	1	1	2	2	3
994	211	292	0	-	0	0	1	1	2	3
995	186	160	0	-	0	0	1	1	2	3
996	139	290	0	-	0	0	_*	_*	_*	_*
997	141	157	0	-	0	1	_*	_*	_*	_*
998	190	167	0	-	0	0	_*	_*	_*	_*
999	198	261	0	-	1	1	1	1	2	3
1000	170	388	0	-	0	0	1	1	2	4
<b>Average/median</b>	<b>185/194</b>	<b>264/258</b>	<b>0/0</b>	<b>-/-</b>	<b>0.3/0</b>	<b>0.4/0</b>	<b>1/1</b>	<b>1.1/1</b>	<b>2.0/2</b>	<b>3.0/3</b>

\* Samples removed due to insect attack. Not included in the assessment.

Preservative:	TBTO ( <i>Topcoat: ICP</i> )		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year*	2 year*	3 year*	4 year*	5 year*	6 year*	7 year*	
1001**	141	230	1	-	0	0				
1002**	184	288	0	-	0	0				
1003**	143	405	0	-	0	0				
1004**	164	212	0	-	0	0				
1005**	203	195	0	-	1	1				
1006***	145	197	0	-	0	0	1	1	2	
1007***	158	234	0	-	0	0	1	2	4	
1008***	182	279	0	-	0	0	1	1	2	
1009***	181	202	0	-	1	1	1	1	2	
1010***	194	246	0	-	0	0	1	_****	_****	
<b>Average/median</b>	<b>170/173</b>	<b>249/232</b>	<b>0.1/0</b>	<b>-/-</b>	<b>0.2/0</b>	<b>0.2/0</b>	<b>1/1</b>	<b>1.3/1</b>	<b>2.5/2</b>	

\* Non-destructive

\*\* Selected for destructive evaluation 2022 after 4 years of exposure.

\*\*\* Selected for destructive evaluation 2025 after 7 years of exposure.

\*\*\*\* Samples removed due to insect attack. Not included in the assessment.

## Details on retention and evaluation data

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Preservative:	TBTO ( <i>Topcoat: ICP</i> )		Pine sapwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint destructive evaluation. Vi: Evaluation of the internal conditions.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>
1001	141	230	-	-	-	2			
1002	184	288	-	-	-	3			
1003	143	405	-	-	-	1			
1004	164	212	-	-	-	1			
1005	203	195	-	-	-	1			
1006	145	197	-	-	-	-	-	-	3
1007	158	234	-	-	-	-	-	-	4
1008	182	279	-	-	-	-	-	-	2
1009	181	202	-	-	-	-	-	-	2
1010	194	246	-	-	-	-	-	-	-*
<b>Average/median</b>	<b>170/173</b>	<b>249/232</b>	<b>-/-</b>	<b>-/-</b>	<b>-/-</b>	<b>1.6/1</b>	<b>-/-</b>	<b>-/-</b>	<b>2.8/2.5</b>

\* Sample removed due to insect attack. Not included in the assessment.

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## Details on retention and evaluation data

Preservative:	TBTO ( <i>Topcoat: ICP</i> )		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Denmark									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>							
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>	<b>8 year</b>
1011	185	218	0	0	0	0	0	1	2	2
1012	205	218	0	0	0	0	0	1	1	2
1013	195	252	0	0	0	0	0	0	1	2
1014	202	198	0	0	0	0	0	0	1	2
1015	147	237	0	0	0	0	0	1	2	2
1016	150	257	0	0	0	0	0	0	1	2
1017	164	226	0	0	0	0	0	0	2	3
1018	129	243	0	0	0	0	0	0	2	3
1019	166	247	0	0	0	0	1	1	1	1
1020	197	176	0	0	0	0	0	1	1	2
<b>Average/median</b>	<b>174/176</b>	<b>227/232</b>	<b>0/0</b>	<b>0/0</b>	<b>0/0</b>	<b>0/0</b>	<b>0.1/0</b>	<b>0.5/0.5</b>	<b>1.4/1</b>	<b>2.1/2</b>

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## Details on retention and evaluation data

Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>							
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>	<b>8 year</b>
1021	-	-	0	-	4	4	4	4	4	4
1022	-	-	0	-	1	1	4	4	4	4
1023	-	-	0	-	1	1	1	1	4	4
1024	-	-	0	-	1	1	2	2	4	4
1025	-	-	0	-	1	1	2	2	4	4
1026	-	-	0	-	2	2	2	2	4	4
1027	-	-	0	-	1	1	2	2	4	4
1028	-	-	0	-	1	1	2	2	4	4
1029	-	-	0	-	1	1	2	2	4	4
1030	-	-	0	-	1	1	1	1	4	4
<b>Average/median</b>	-	-	<b>0/0</b>	<b>-/-</b>	<b>1.4/1</b>	<b>1.4/1</b>	<b>2.2/2</b>	<b>2.2/2</b>	<b>4.0/4</b>	<b>4.0/4</b>

Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine sapwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint for destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year*</b>	<b>2 year*</b>	<b>3 year*</b>	<b>4 year*</b>	<b>5 year*</b>	<b>6 year*</b>	<b>7 year*</b>
1031**	-	-	0	-	2	2			
1032**	-	-	0	-	1	1			
1033**	-	-	1	-	1	2			
1034**	-	-	0	-	1	2			
1035**	-	-	0	-	1	1			
1036***	-	-	0	-	2	2	3	4	4
1037***	-	-	1	-	4	4	4	4	4
1038***	-	-	0	-	1	1	2	2	3
1039***	-	-	0	-	1	1	2	2	4
1040***	-	-	0	-	1	1	4	4	4
<b>Average/median</b>	-	-	<b>0.2/0</b>	<b>-/-</b>	<b>1.5/1</b>	<b>1.7/1</b>	<b>3/3</b>	<b>3.2/4</b>	<b>3.8/4</b>

\* Non-destructive

\*\* Selected for destructive evaluation 2022 after 4 years of exposure.

\*\*\* Selected for destructive evaluation 2025 after 7 years of exposure.

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## Details on retention and evaluation data

Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine sapwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint destructive evaluation. V <sup>i</sup> : Evaluation of the internal conditions.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>
1031	-	-	-	-	-	2			
1032	-	-	-	-	-	1			
1033	-	-	-	-	-	1			
1034	-	-	-	-	-	1			
1035	-	-	-	-	-	1			
1036	-	-	-	-	-	-	-	-	4
1037	-	-	-	-	-	-	-	-	4
1038	-	-	-	-	-	-	-	-	3
1039	-	-	-	-	-	-	-	-	4
1040	-	-	-	-	-	-	-	-	4
<b>Average/median</b>	-	-	<b>-/-</b>	<b>-/-</b>	<b>-/-</b>	<b>1.2/1</b>	<b>-/-</b>	<b>-/-</b>	<b>3.8/4</b>

## Details on retention and evaluation data

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Preservative:	Untreated (Topcoat: ICP)		Pine heartwood							
Exposure date:	22-04-2018									
Test site:	Malaysia									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>							
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>	<b>8 year</b>
1051	-	-	0	-	1	2	2	2	3	3
1052	-	-	0	-	1	1	1	2	2	2
1053	-	-	0	-	1	1	1	2	3	3
1054	-	-	0	-	0	0	1	1	2	3
1055	-	-	0	-	0	0	1	2	3	3
1056	-	-	0	-	0	0	1	1	1	2
1057	-	-	0	-	1	1	1	2	4	4
1058	-	-	0	-	0	0	1	1	1	1
1059	-	-	0	-	0	0	1	1	3	3
1060	-	-	0	-	0	0	1	2	3	3
<b>Average/median</b>	-	-	<b>0/0</b>	<b>-/-</b>	<b>0.4/0</b>	<b>0.5/0</b>	<b>1.1/1</b>	<b>1.6/2</b>	<b>2.5/3</b>	<b>2.7/3</b>

Preservative:	Untreated (Topcoat: ICP)		Pine heartwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint for destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year*</b>	<b>2 year*</b>	<b>3 year*</b>	<b>4 year*</b>	<b>5 year*</b>	<b>6 year*</b>	<b>7 year*</b>
1061**	-	-	0	-	0	0			
1062**	-	-	0	-	1	1			
1063**	-	-	0	-	1	1			
1064**	-	-	0	-	0	1			
1065**	-	-	0	-	0	0			
1066***	-	-	0	-	1	1	1	2	3
1067***	-	-	0	-	0	0	1	1	2
1068***	-	-	0	-	0	0	1	2	2
1069***	-	-	0	-	0	0	1	1	2
1070***	-	-	0	-	0	0	1	2	3
<b>Average/median</b>	-	-	<b>0/0</b>	<b>-/-</b>	<b>0.3/0</b>	<b>0.4/0</b>	<b>1/1</b>	<b>1.6/2</b>	<b>2.4/2</b>

\* Non-destructive

\*\* Selected for destructive evaluation 2022 after 4 years of exposure.

\*\*\* Selected for destructive evaluation 2025 after 7 years of exposure.

## Details on retention and evaluation data

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Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine heartwood						
Exposure date:	22-04-2018								
Test site:	Malaysia								
L joint destructive evaluation. V <sup>i</sup> : Evaluation of the internal conditions.	<b>Retention</b>		<b>Visual observations – median fungal attack rating</b>						
Test No	<b>Tenon (g/m<sup>2</sup>)</b>	<b>Mortise (g/m<sup>2</sup>)</b>	<b>1 year</b>	<b>2 year</b>	<b>3 year</b>	<b>4 year</b>	<b>5 year</b>	<b>6 year</b>	<b>7 year</b>
1061	-	-	-	-	-	1			
1062	-	-	-	-	-	1			
1063	-	-	-	-	-	1			
1064	-	-	-	-	-	2			
1065	-	-	-	-	-	1			
1066	-	-	-	-	-	-	-	-	3
1067	-	-	-	-	-	-	-	-	3
1068	-	-	-	-	-	-	-	-	2
1069	-	-	-	-	-	-	-	-	2
1070	-	-	-	-	-	-	-	-	3
<b>Average/median</b>	-	-	<b>-/-</b>	<b>-/-</b>	<b>-/-</b>	<b>1.2/1</b>	<b>-/-</b>	<b>-/-</b>	<b>2.6/3</b>

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## Details on retention and evaluation data

Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine sapwood							
Exposure date:	22-04-2018									
Test site:	Denmark									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year
1041	-	-	1	1	1	1	1	2	3	4
1042	-	-	0	0	0	0	1	2	3	3
1043	-	-	0	0	0	1	1	2	2	2
1044	-	-	0	0	0	0	0	1	1	2
1045	-	-	0	0	0	0	1	1	2	3
1046	-	-	0	0	0	1	1	2	3	3
1047	-	-	1	1	1	1	1	2	2	3
1048	-	-	0	0	0	0	1	1	2	3
1049	-	-	0	0	0	0	1	2	3	3
1050	-	-	0	0	0	0	1	1	2	3
<b>Average/median</b>	-	-	<b>0.2/0</b>	<b>0.2/0</b>	<b>0.2/0</b>	<b>0.4/0</b>	<b>0.9/1</b>	<b>1.6/2</b>	<b>2.3/2</b>	<b>2.9/3</b>

Preservative:	Untreated ( <i>Topcoat: ICP</i> )		Pine heartwood							
Exposure date:	22-04-2018									
Test site:	Denmark									
L joint for non-destructive evaluation. V <sup>e</sup> : Evaluation of the external surfaces.	Retention		Visual observations – median fungal attack rating							
Test No	Tenon (g/m <sup>2</sup> )	Mortise (g/m <sup>2</sup> )	1 year	2 year	3 year	4 year	5 year	6 year	7 year	8 year
1071	-	-	0	0	0	0	0	1	1	1
1072	-	-	0	0	0	0	1	1	1	1
1073	-	-	0	0	0	0	0	1	1	1
1074	-	-	0	0	0	1	1	1	1	1
1075	-	-	0	0	0	1	1	1	1	1
1076	-	-	0	0	0	0	0	0	1	1
1077	-	-	0	0	0	0	0	0	1	1
1078	-	-	0	0	0	0	0	0	1	1
1079	-	-	0	0	0	1	1	1	1	1
1080	-	-	0	0	0	0	0	0	1	1
<b>Average/median</b>	-	-	<b>0/0</b>	<b>0/0</b>	<b>0/0</b>	<b>0.3/0</b>	<b>0.4/0</b>	<b>0.4/0</b>	<b>1.0/1</b>	<b>1.0/1</b>