

Laboratory of Wood Technology

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| Report No: | 11-40/EK/1423-2 |
| Date of issue: | 28.10.2022 |
| Pages: | 3 |
| Customer: | Standwood OÜ |
| Customer address: | Sõeru tee 11, Alliku küla, Saue vald, 76403 |
| Customer contact: | Kaarel Tali |
| Test subjects: | Interior cladding board, finger jointed and laminated with veneer |
| Test method: | EN 314-1 |
| Testing objective: | Testing the durability of glue joints in finger jointed interior cladding boards |
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| Test specimen(s) description and marking used in current report: | |

Appendices:

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| **Appendix 1** | **EN 314-1 Test results for glue joints in interior cladding board** |

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| Given report shall not be reproduced without written approval of the laboratory. | **Approved by:**  Jaan Kers, PhD  Head of Laboratory of Wood Technology |

**APPENDIX 1.**

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| **TALLINN UNIVERSITY OF TECHNOLOGY | DEPARTMENT OF MATERIALS**  **AND ENVIRONMENTAL TECHNOLOGY** | |
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**Specimen(s) description**

Finger jointed interior cladding board with veneer lamination.

Wood species: alder.

Bond strength specimen cut out from boards: 12 mm x 25 mm x 170 mm, 14 pcs .

Shear area: 25 x 25 mm.

**Test description**

Test severity classification:

EN 314-2 Plywood – Bonding Quality – Part 2: Requirements; class 3: – non-covered exterior

Specimen pre-treatment sequence:

1. Immersion for 24h in water at ( 20 ± 3) °C.
2. Immersion for (72 ± 1) h in boiling water, followed by cooling in water at (20 3) °C for at least 1h.

Tensile test for bond strength determination after pre-treatment between the top veneer layer and finger jointed structure underneath.

**Test parameters**

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| Tester(s) | Margus Kangur, technician |
| Test Machine | ZwickRoell Z050 |
| Test type | EN 314-1 |
| Test date | 27.10.2022 |

**Test results**

The specimen bonding requirements passed the test according to EN 314-1, obtaining plywood use class no 3: non-covered exterior conditions. No delamination occured during pre-treatment – finger joints visually sound.

Average bond strength 2,5 ± 0,5 N/mm2.

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Table 1. Test results 314-1

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| **Specimen ID** | **Maximum load, N** | **Bond strength, N/mm²** |
| Specimen 1 | 1604 | 2,6 |
| Specimen 2 | 1461 | 2,3 |
| Specimen 3 | 1406 | 2,2 |
| Specimen 4 | 1110 | 1,8 |
| Specimen 5 | 1361 | 2,2 |
| Specimen 6 | 1913 | 3,1 |
| Specimen 7 | 1984 | 3,2 |
| Specimen 8 | 1528 | 2,4 |
| Specimen 9 | 1142 | 1,8 |
| Specimen 10 | 1863 | 3,0 |
| Specimen 11 | 2118 | 3,4 |
| Specimen 12 | 1318 | 2,1 |
| Specimen 13 | 1165 | 1,9 |
| Specimen 14 | 1522 | 2,4 |
| **Average** | **1535** | **2,5** |
| **Standard deviation** | **324** | **0,5** |



Figure 1. Specimen after testing

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