# Test Report

EN 927-5

Report No.: 214938-273

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bkv/jos/hbs
Order no.: 214938
No. of appendices: 1

**Assignor:** Teknos A/S
Industrivej 19
DK-6580 Vamdrup
Denmark

**Material:** The test specimens were treated according to assignor's directions:
TEKNOL AQUA 1410-01. Dipping 90 (80-100) g/m²
ANTISTAIN AQUA 5200-00. Spraying 210 (189-231) g/m²
AQUATOP VIRTA BASE 3. Spraying 180 (162-198) g/m²

**Sampling:** The test material was sampled by the client and received at the Danish Technological Institute on 14-12-2023.

**Method:** EN 927: Paints and varnishes - Coating materials and coating systems for exterior wood Part 5:2006. Assessment of the liquid water permeability.

**Period:** The testing was carried out from 31-01-2024 to 28-06-2024
Water permeability test took place from 25-06-2024 to 28-06-2024

**Result:**

| **Test Panels:** | **Average (min-max)** | |
|---|---|---|
| Wood density (12% MC) | 467 (451-480) | kg/m³ |
| TEKNOL AQUA 1410-01 | 87 (82-90) | g/m² |
| ANTISTAIN AQUA 5200-00 | 217 (199-230) | g/m² |
| AQUATOP VIRTA BASE 3 | 191 (178-198) | g/m² |
| Dry film thickness | 120 (110-130) | µm |
| Water absorption after 72 hours | 75 (67-79) | g/m² |
| - standard deviation | 4 | g/m² |
| - coefficient of variation | 5 | % |
| **Reference panels (test of sealer):** | | |
| Wood density (12% MC) | 468 (455-480) | kg/m³ |
| Water absorption after 72 hours | 11 (9-12) | g/m² |

**Assessment:** According to EN 927-2:2022. Part 2: Performance specification. The tested system performs as 'Stable' regarding water absorption (≤175 g/m²).

**Validity:** Water absorption after 72 hours on reference specimens was ≤ 30 g/m². The test is valid.

**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.
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# Detailed results

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Initials: bkv/jos/hbs

**Substrate:** Norway spruce (*Picea abies* (L.) Karst.).

**Material specification:** TEKNOL AQUA 1410-01. SKU: 1711455.
ANTISTAIN AQUA 5200-00. SKU: 2105864 Lot: 402790-401.
AQUATOP VIRTA BASE 3. SKU: 2714837 Lot: 394236-201.

**Treatment:**

| Coat | Trade name | Type | Application method and date | Recommended amount [g/m²] |
|---|---|---|---|---|
| 1 | TEKNOL AQUA 1410-01 | Impregnation | Dipping<br>01-02-2024 | 80-100 |
| 2 | ANTISTAIN AQUA 5200-00 | Intermediate | Spraying<br>30-04-2024 | 189-231 |
| 3 | AQUATOP VIRTA BASE 3 | Topcoat | Spraying<br>06-05-2024 | 162-198 |

**Results:**

| **Test panels** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Panel no. | 3701 | | 3702 | | 3703 | | Average |
| Density [kg/m³] | 471 | | 451 | | 480 | | 467 |
| **Application data** | | | | | | | |
| Coat 1 [g/m²] | 88 | | 90 | | 82 | | 87 |
| Coat 2 [g/m²] | 199 | | 222 | | 230 | | 217 |
| Coat 3 [g/m²] | 198 | | 198 | | 178 | | 191 |
| **Dry film thickness** | | | | | | | |
| Thickness [µm] | 110 / 130 / 125 / 125 / 115 | | 120 / 120 / 115 / 110 / 120 | | 120 / 120 / 125 / 120 / 125 | | 120 |
| Std.dev. [µm] | 8 | | 5 | | 3 | | 6 |
| **Water absorption** | | | | | | | |
| Panel part | A | B | A | B | A | B | Average |
| Absorption [g/m²] | 79 | 67 | 75 | 77 | 78 | 76 | 75 |
| Std.dev. [g/m²] | 4 | | | | | | |
| COV [%] | 5 | | | | | | |
| **Reference panels (test of sealer)** | | | | | | | |
| Panel no. | R101 | | R102 | | R103 | | Average |
| Density [kg/m³] | 469 | | 455 | | 480 | | 468 |
| **Water absorption** | | | | | | | |
| | A | B | A | B | A | B | Average |
| Absorption [g/m²] | 10 | 9 | 11 | 10 | 12 | 11 | 11 |
| Std.dev. [g/m²] | 1 | | | | | | |
| COV [%] | 9 | | | | | | |