



Assessment of the ARDEX WPM 157 - Waterproofing Membrane to AS 3740 for testing to AS/NZS 4858:2004 wet area membranes

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TERM OF VALIDITY

This CSIRO Wet Area Membranes 1st revalidation report will lapse three years after the date of issue below and assessment unless 2nd revalidation has been requested and granted.

The 1st revalidation Report number SW8522-01 valid until 20th December 2026

Report Status and Revision History

Revision A	Final	15 February 2024	CSIRO, ARDEX Australia Pty. Ltd.	
Revision B	Final Revision B Summary	28 March 2024	CSIRO, ARDEX Australia Pty. Ltd.	Summary only, please refer to original report for test details

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The results reported herein relate only to the item(s) tested.

1 Summary

Test Standard: Testing was conducted on a waterproofing membrane used for internal wall and floor tiled areas, to assess its performance for: water vapour transmission; water absorption; acceptance of cycle movement; and durability. The waterproofing properties required by AS 3740 were tested in accordance with the Australian Standard AS/NZS 4858-2004.

All methods were carried out according to Table A1 durability of membranes against the performance criteria of Table 8.1.

Test results: The waterproofing membrane presented for testing complied with the performance criteria set in AS/NZS 4858-2004 'Wet area membranes', confirmed against AS 3740. The following table shows the ARDEX WPM 157 - Waterproofing Membrane performance as assessed from testing.

Table 1 Summary of test requirements and test specimen results for AS/NZS 4858:2004

TEST	METHOD	REQUIREMENTS	RESULT	STATUS
(a) Moisture Transmission Rate	ASTM E 96 Desiccant method for Determining Water Vapour Transmission (WVT)	Water Vapour transmission shall be $<8 \text{ g} / \text{m}^3 / 24\text{hrs}$. If $> 8 \text{ g} / \text{m}^3 / 24\text{hrs}$, additional testing will be required to establish suitability for use over particleboard.	WVT 7.79 $\text{g}/\text{m}^2/24\text{hrs}$ Permeance 64.17 $\text{ng}/\text{Pa}\cdot\text{s}\cdot\text{m}^2$	Complied
(b) Water Absorption	AS 3558.1 Average percentage increase in mass	Maximum record result of percentage mass $w_m\% = (w_m^2 - w_m^1) / w_m^1 \times 100$.	Max. mass 1.88 %	Complied
(c) Acceptance of movement	AS/NZS 4858 Appendix B for assessment of cyclic movement of membrane	Pass or fail criteria by observing any cracking, rupture holing or extending through the thickness for more than 1 mm in from the edge of the specimen.	Class III	Complied
(d) Durability 1. Control 2. Water immersion 3. Bleach immersion 4. Detergent immersion 5. Heat ageing at 50°C	AS/NZS 4858 & Appendix A for assessment of membranes durability	Pass or fail criteria; compared to control samples, elongation at break shall be not less than 50 % for the bond breakers given in Table 6.1.	Class III	Complied

2 Comments

ARDEX WPM 157 - Waterproofing Membrane, as described herein, when subjected to the test methods of AS/NZS 4858:2004 '*Wet area membranes*', the properties of (a) moisture vapour transmission, (b) water absorption, (c) cyclic movement (Class III), and (d) durability, met the performance criteria to AS/NZS 4858:2004 Wet Area Membranes.

- The thickness range for the control specimens of the 1st revalidation report SW8501-01 is 0.91 – 0.96mm, which is less than the thickness range of the control specimens for the original report 8319.1, where was the range of 1.22 – 1.27mm.
- The average result of the 1st revalidation of the Control' specimens for SW8501-01, AS/NZS 4858:2004 for Control is **332%**, which is **greater** than 300%, Class III – High Extensibility.

End of report