



ARDEX AUSTRALIA PTY LTD  
TECHNICAL SERVICES REPORT  
TSD1030

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**Date:** 12 October 2020  
**Prepared By:** Technical Service Department  
**Prepared For:** Ronald Rose  
**Application Area:** Floor- Internal wet and dry Application

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### BACKGROUND

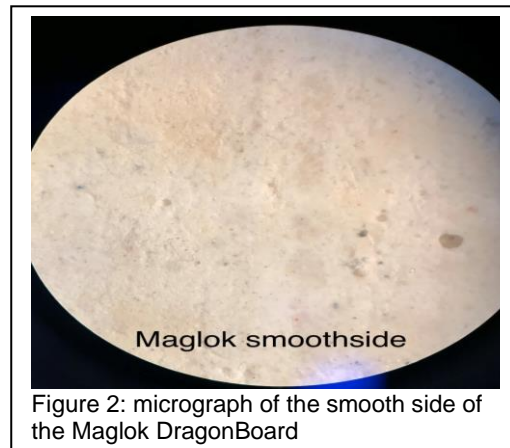
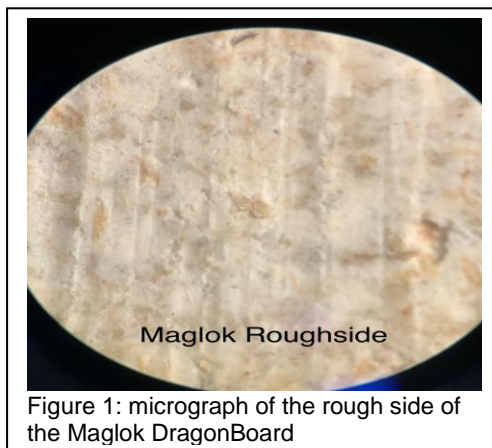
A request was received to evaluate Maglok DragonBoard for potential ARDEX product recommendations for waterproofing and tiling for internal wet and dry applications for wall and floor as well as suitability of ARDEX Arditec NA as floor levelling compound over the material.

The Maglok DragonBoard is manufactured in New Zealand from a combination of Magnesium Oxide, Magnesium Sulphate and fibre reinforcements which is deemed suitable for use as an internal structural floor or ceiling panel.

The material is only specified by the manufacturer for floor and ceiling application. Therefore, this evaluation will only cover application of ARDEX products on the floor unless otherwise approved by the manufacturer for wall application.

### EVALUATION and DISCUSSION

The boards can be installed with the smooth or rough side up but due to limited material for testing, the evaluation was conducted on the smooth side of the board ONLY which shows a greater concern for adhesion.



The method used to evaluate the adhesion compatibilities was tensile adhesion strength at 28 days dry at ambient laboratory conditions or 7 days dry and 21 days immersed for wet area evaluation.

Amongst the ARDEX products requested, the combination that gave acceptable pull-off adhesion strength are as follows:



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Internal Dry Floors:

1. Primers: ARDEX P9 primer or ARDEX Multiprime
2. Tile Adhesives: ARDEX X10, ARDEX X18 ± E90, ARDEX X56, ARDEX X77

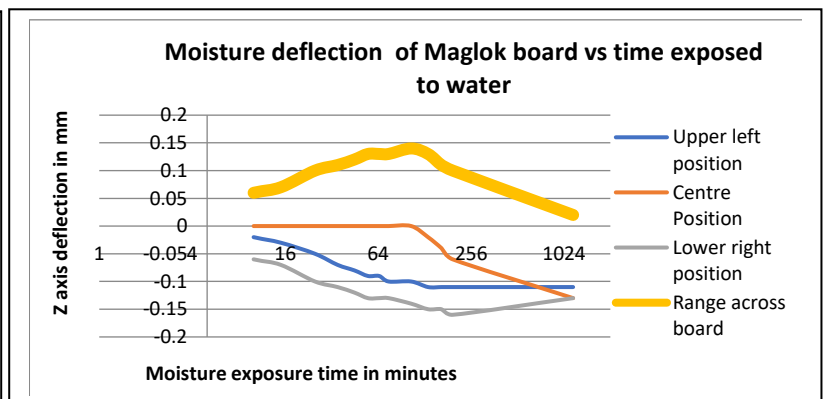
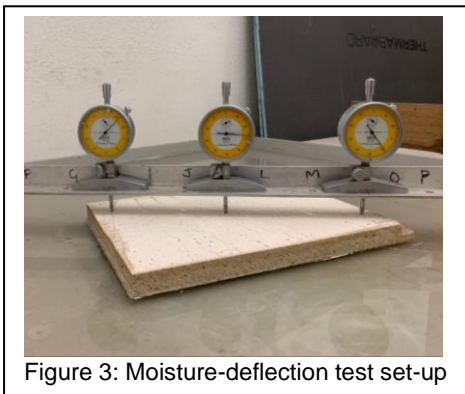
Internal Wet Area:

1. Primers: ARDEX P9 primer or ARDEX Multiprime
2. Waterproofing Membrane: ARDEX WPM002
3. Tile Adhesives: ARDEX X10, ARDEX X18 ± E90, ARDEX X77

ARDEX Arditec NA levelling compound was found to be compatible to be used for dry application while ARDEX WPM002 waterproofing membrane must be applied over the leveller prior to tiling in wet area application.

This evaluation is only based on the adhesion compatibilities of the above-mentioned products over the smooth side of the board and has not taken into consideration the other factors that can be critical for this application (eg. board installation procedure and joint treatments).

The moisture stability and deflection test done for the Maglok Dragonboard is inconclusive due to the size of the board left to conduct this test (Figures 3 and 4). Therefore, the product recommendations are given with the caveat that the board is moisture and dimensionally stable, fit for this purpose and is warranted as such by the manufacturer.



## CONCLUSION

The above product recommendations for levelling, waterproofing and tiling are suitable for the smooth side of the board only until further testing on the rough side of the board is verified.

The board must be installed as per Manufacturer's instructions.

ARDEX accepts no liability for potential moisture sensitivity, decay or dimensional instability problems related to the properties of the Maglok DragonBoard. Our products however are fully compatible with each other and adhere to the board in a fit for purpose manner.

*Maria Marquez*  
Technical Services Advisor  
ARDEX Australia



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**Report Basis Conditions**

1. All Ardex/Dunlop products examined and used, have been compared to the recommendations within their Ardex/Dunlop product datasheets and packaging, or any altered requirements in Ardex/Dunlop Technical Bulletins or Ardex System Recommendations which supercede the standard product datasheets. Where a system has been installed in previous years (but within the warranty period) using literature or data now superceded, that information shall be referred to in any discussion of the complaint, not the current information.
2. All third party products used as part of a system, shall be installed in accordance with the product manufacturers recommendations. Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant third party product information or datasheets.
3. All constructions and installations shall comply with the relevant sections of the most recent edition of the National Construction Code of Australia – NCC (formerly the 'BCA' or 'CCA'). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections of the NCC.
4. All ceramic tile related installations shall be checked for concordance with the most recent edition of the Australian Standard AS3958 and where applicable ISO13007 (AS4992). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
5. All waterproofing related installations or products shall be checked for concordance with the relevant sections of the most recent editions of the Australian Standards AS/NZS4858 (performance), AS3740 (internal) or AS4654 (external). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
6. All flooring installations shall be checked for concordance with the relevant sections of the most recent edition of AS1884 (resilient) or AS/NZS2455 (textile). Ardex reserves the right to make observations of non-conformance where reference has been made to the relevant sections.
7. Ardex reserves the right to reference external materials such public domain documents on the internet, professional literature and textbooks, and government or professional body data.
8. Where Ardex/Dunlop Technical Bulletins and Datasheets are discussed, they can be sourced from the website [www.ardexaustralia.com.au](http://www.ardexaustralia.com.au) or [Dunlopdij.com](http://Dunlopdij.com) and are considered 'public domain documents'.

**General Disclaimers**

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