

7th November, 2013

TECHNICAL REPORT No: LR 5009

Waterproofing Systems for Ubiq Inex Flooring

A. Background

Enquiries about Magnesium Oxide (MgO) boards have been more frequent recently. Ubiq was approached for samples of their board to evaluate the suitability of our waterproofing systems in terms of adhesion.

B. Test Method

Samples of the board were coated with our waterproofing membrane systems and tested for dry tensile adhesion strength after seven days. Samples were also tested for tensile adhesion strength after an additional period of 21 days of immersion in fresh water.

C. Results

Dry Bond Strength to Inex Floor	
Multiprime + Dampfix Gold	3.16 N/mm ² 100% cohesive failure within the substrate.
Multiprime + Dampfix 3	2.38 N/mm ² 40% cohesive failure within the membrane 60% adhesive failure of the epoxy glue
Moisture Seal + Dampfix PU	0.80 N/mm ² 50% cohesive failure within the membrane 50% adhesive failure between doley & membrane.

Wet Bond Strength to Inex Floor	
Multiprime + Dampfix Gold	0.88 N/mm ² 100% adhesive failure between membrane system and substrate.
Moisture Seal + Dampfix PU	1.35 N/mm ² 35% adhesive failure between primer & membrane. 35% adhesive failure between epoxy glue & membrane. 20% adhesive failure between substrate & primer. 10% cohesive failure within the membrane.



The results are tested on standard laboratory conditions and may not replicate the actual site conditions and other unforeseen variables that can arise during and after the application. It is important that the customer must perform additional test to ensure suitability of the product. This report must not be reproduced or provided to external parties without written approval from Bostik Technical Department.

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Dry Adhesion – Dampfix PU

Picture 1:



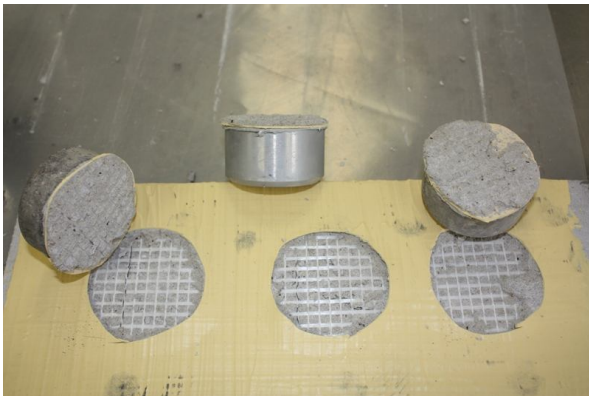
Dry Adhesion – Dampfix Gold

Picture 2:



Dry Adhesion – Dampfix Gold

Picture 3:



Dry Adhesion – Dampfix 3

Picture 4:



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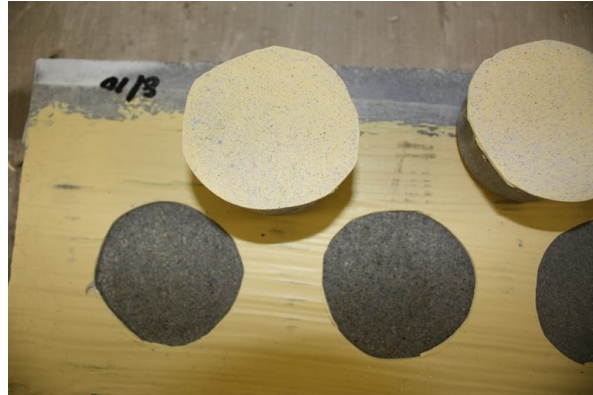
Wet Adhesion

Picture 5:



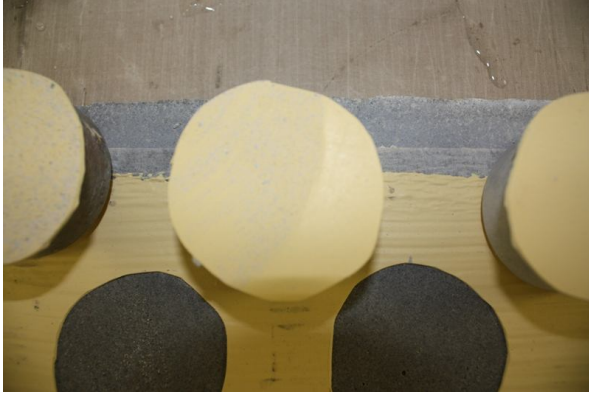
Wet Adhesion – Dampfix Gold

Picture 6:



Wet Adhesion – close up Dampfix Gold

Picture 7:



Wet Adhesion – Dampfix PU

Picture 8:



Even closer view of Picture 7.

Picture 9:



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D. Summary

It was found that our waterproofing systems adhere well to the **Ubiq Inex Floor panel** product when dry. Under immersed conditions adhesion to the substrate became more difficult. Dampfix Gold either came off cleanly, or with what was a very thin layer of substrate particles or efflorescence attached. Dampfix PU with Moisture Seal as the primer produced better adhesion to the substrate under immersed conditions. While the wet bond strengths are still good, the mode of failure with the Dampfix Gold system could give the impression that it had failed. It is possible to peel the Dampfix Gold membrane off the substrate. The Dampfix PU with Moisture Seal could not be peeled off.

For this reason, **Bostik** recommend **Dampfix Gold** and **Dampfix PU** as the waterproofing membrane and **Moisture Seal** as the primer of choice.

For and on behalf of

Bostik Australia Pty Ltd



Mark Boughton
TECHNICAL SERVICE CHEMIST



Emmark Eroles
TECHNOLOGY MANAGER



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