

# TECHNICAL BULLETIN – TB087.AV007

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MMXI

## BONDING CERAMIC TILE TO WET-SEAL WATERPROOFING MEMBRANE SYSTEMS

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### INTRODUCTION

The Wet-seal Group operates in Australia as a group of independent franchisees of a waterproofing system designed for residential applications in wet areas.

ARDEX Australia Pty Ltd has carried out extensive testing to determine the effectiveness of a number of ceramic tile adhesives when applied over the different types of 'Wet-seal' waterproofing membrane systems.

### 'WET-SEAL' WATERPROOFING SYSTEMS EVALUATED

1. Polyester fibreglass membrane overcoated with Wet-seal Top-coat 300

### CERAMIC TILE ADHESIVES EVALUATED

1. ARDEX X77 – Polymer modified cementitious type
2. ARDEX Optima – High polymer premium type
3. ARDEX STS8 + ARDEX E90 – Polymer modified cementitious type
4. ARDEX Abaflex – Polymer modified cementitious type
5. ARDEX Glue – Polymer rubber modified type

### TEST PROCEDURES

Dry and wet adhesion properties were evaluated in accordance with Australian Tile Adhesive Standard AS 4992.1 – 2006.

The Wet-seal waterproofing systems were applied to standard concrete blocks by the Representative of the Wet-seal Group and allowed to cure for the specified periods.

The polyurethane systems were tested over primed concrete.

### RESULTS & DISCUSSION

#### 1. Wet-seal Fibre Coat System

##### a) Polyester fibreglass membrane overcoated with Wet-seal Top-coat 300

The use of the Wet-seal Top-coat 300 produced improved adhesion results.

ARDEX X77, ARDEX Optima, ARDEX STS8 plus ARDEX E90, ARDEX Abaflex and ARDEX Glue all conformed to wet adhesion requirements as per AS4992.1, with ARDEX Optima showing the best results.

##### b) Heating coil installation over Wet-seal Top-coat 300

When heating coils are going to be installed on top of Wet-seal Top-coat 300, ARDEX X77, ARDEX Abaflex, STS8 + ARDEX E90, ARDEX Optima can be used to embed the heating coil. Apply the adhesive using flat trowel and screed off at least 2 mm above the heating coil. Allow to cure for overnight prior to installation of ceramic tiles.

## CONCLUSION

1. Wet-seal Top-coat 300 is recommended for use as the barrier coating to be applied between the polyester fibreglass and the ceramic tile adhesive. Apply the Top-coat 300 as soon as the fibreglass is dried (preferably within 30 min to 1 hours under 23°C / 50% RH) and in any event within the same day of application of fibreglass at wet film thickness of 300 microns.
2. ARDEX Optima, ARDEX STS8 + ARDEX E90, ARDEX Abaflex, and ARDEX Glue are recommended for the installation of ceramic tiles over the Wet-seal polyester/fibreglass system with a single coat of Wet-seal Top-coat 300. ARDEX X77, ARDEX Abaflex, ARDEX STS8 + ARDEX E90, and Optima can also be used to embed heating coil over Wet-seal Top-coat 300 prior to fixing tiles.
3. Allow the Top-coat 300 to cure overnight prior to fixing the tiles with ARDEX tile adhesives. At all times the surface of Wet-seal Top-coat 300 has to be thoroughly cleaned of all foreign matters at all times (Refer to Wet seal's Wall & Floor Stickers on site).
5. The recommendations contained in items 1, 2, 3 & 4 above all produce tensile bond strength results conforming to AS 4992.1.
6. The conclusions drawn within this bulletin are limited to the waterproofing systems tested. Any product formulation or installation changes in the Wet-seal products will render this recommendation null and void.

### **IMPORTANT**

This Technical Bulletin provides guideline information only and is not intended to be interpreted as a general specification for the application/installation of the products described. Since each project potentially differs in exposure/condition specific recommendations may vary from the information contained herein. For recommendations about specific applications/installations contact your nearest Ardex Australia Office.

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### **REASON FOR ISSUE**

Review and update information

### **DISCLAIMER**

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