TECHNICAL BULLETIN – TB276

APPLICATION OF UNDERTILE WATERPROOFING MEMBRANES DIRECTLY ONTO DINCEL CORE FILLED PLASTIC PANELWORK

13TH May 2025

INTRODUCTION & SCOPE

The core-filled Dincel formwork system is based upon an exoskeleton of PVC plastic panels (1800-7950mm long) with a proprietary locking system to hold the individual panels together. The internal cavity of the wall contains steel bars and is filled with poured concrete.

This technical bulletin lists the approved ARDEX products for the application of undertile waterproofing membranes directly onto Dincel core filled plastic panel work and then tiled or protected using a protective finish.

QUALIFICATIONS

This bulletin outlines the waterproofing systems that have been observed to successfully bond to the PVC surface of the Dincel wall. It does not provide guidance on detailing panel joints, retaining walls, below-grade applications, planter boxes, or any waterproofing systems other than those specifically addressed in this document. Additionally, the use of render or rendering materials over Dincel is not recommended.

The Dincel panel joints are stated to be waterproof in their literature. Therefore, recommendations for waterproofing in wet areas are only included in this bulletin, where the site specification requires a formal waterproofing system to be installed.

WATERPROOFING SYSTEMS

The waterproofing systems described in this document are divided into two applications: External wet areas (balconies) and standard wet areas (bathrooms and laundries)

Standard external wet areas (Balconies)

1. The area to be treated requires light sanding and de-dusting and must be dry.
2. The Dincel wall shall be primed with ARDEX P9/ABA Abaprime, and the concrete or screed floor with ARDEX WPM265 water-based primer or ARDEX P9/ABA Abaprime.
3. A bead of neutral cure sealant is applied along the wall-floor junction, and CA20P is applied up the vertical joints.
4. ARDEX Construction Detail Tape is applied across the joint equidistantly on the wall and floor, and the mesh wings are embedded in Epoxy (ARDEX EG15 or ARDEX EG800F Part A and Part B resin only). The outer embedding coat shall be sand-seeded. While wet ARDEX Floor Leveller Primer Sand or clean dry sand of 0.5mm diameter shall be broadcast over the surface. The excess sand is removed after the epoxy has dried (approx. 24 hours).
5. Two coats of ARDEX WPM002 waterproofing are applied over the junction, extending at least 50mm on either side of the ARDEX Construction Detail tape. The final dry film thickness of the ARDEX WPM002 shall be a minimum of 1.2mm. Refer to TDS.
6. The WPM002 **MUST** be tiled over with recommended tile adhesives or coated with a recommended protective finish. See below for these recommendations.

The schematic on page 3 details the junction between the Dincel panel and the floor substrate.

Standard internal wet areas (Bathrooms/laundries)

1. The area to be treated requires light sanding and de-dusting and must be dry.
2. Priming for the walls shall be done with ARDEX P9/ABA Abaprime and the floors (typically a screed placed on the slab to create falls) or ARDEX WPM265 or Multiprime. If there is a screed, this can also be primed with ARDEX Multiprime.
3. Vertical panel joints, wall-floor junctions, and penetrations can be prepared with a bead of neutral-cure sealant or ARDEX CA20P and covered with ARDEX STB Tape.
4. ARDEX WPM155 Rapid Plus or ARDEX WPM002 waterproof membrane is then applied in two coats over the full surface, including ARDEX STB tape, to a final dry thickness as per the product TDS.
5. The waterproofed area **MUST** then be tiled over with recommended tile adhesives See below for tile adhesive recommendations.

RECCOMENDED TILE ADHESIVES

Class C adhesives over the waterproofing membrane –

- ARDEX Optima
- ARDEX X32 + ARDEX E90 liquid
- ARDEX X68 + ARDEX E90 liquid
- ARDEX X77 + ARDEX E90 liquid
- ARDEX X18 + ARDEX E90 liquid
- ARDEX Quickbond + ARDEX Abalastic liquid.

NOTE: When tiles are installed over floor substrates such as concrete or screeds (i.e. not Dincel), any of the tile adhesives listed above can be used without the addition of the ARDEX E90 liquid.

RECCOMENDED TILE GROUTS

ARDEX C class cement-based grouts –

- ARDEX FG8 + ARDEX Grout Booster
- ARDEX FSDD + ARDEX Grout Booster
- ARDEX WJ50 + ARDEX Grout Booster

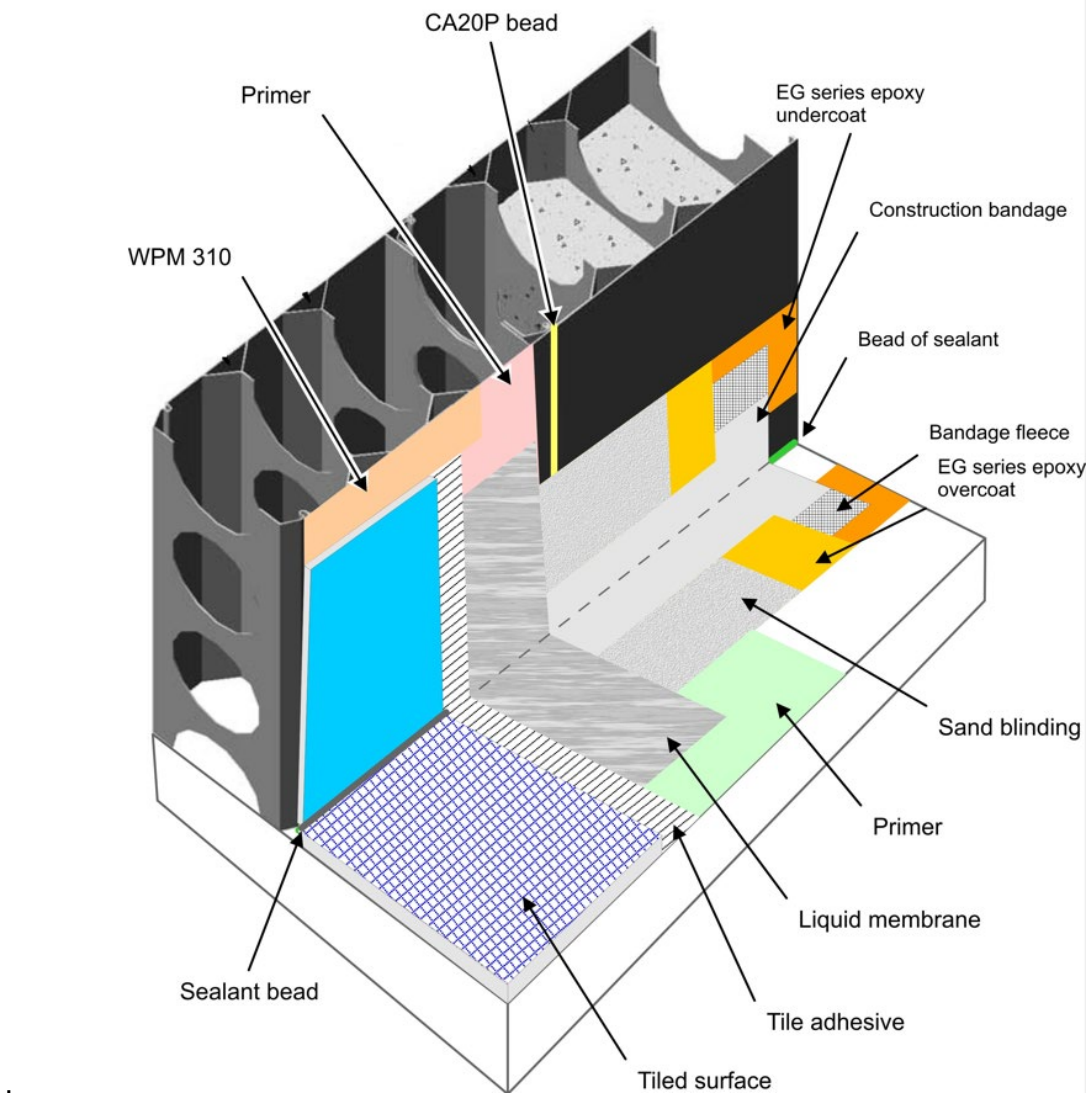
ARDEX Grout Booster must be used to provide extra flexibility and adhesion when tiles are installed over Dincel. When tiles are installed over floor substrates such as concrete or screeds (i.e. not Dincel), any of the grouts listed above can be used without the addition of ARDEX Grout Booster.

RECCOMENDED PROTECTIVE FINISH

ARDEX Protective finish –

- ARDEX WPM310

For all other enquiries, please get in touch with ARDEX Technical Services.



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 for specific applications/installations, contact your nearest Ardex Australia Office.

DISCLAIMER
The information presented in this Technical Bulletin is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of a product for a particular application. Users are asked to check that the literature in their possession is the latest issue.

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Australia: 1300 788 780
New Zealand: 643 384 3029

Web: www.ardexaustralia.com
email: technical.services@ardexaustralia.com
Address: 2 Buda Way, Kemps Creek NSW 2178