

## TECHNICAL BULLETIN – TB017

### LEVELLING OVER CERAMIC TILES & TERRAZZO ARDEX K15M, K55, K12N, ARDITEX NA AND FEATHER FINISH

Date, Monday, 25 August 2014

#### INTRODUCTION & SCOPE

Successful topping systems over ceramic tiles or terrazzo rely on the integrity and bond of the original tiles to the substrate. Any loose or drummy tiles must be removed, the surface cleaned, and then filled with a levelling cement plus aggregate mixture, or ARDEX A45 repair mortar.

*When there is a moisture problem, typically rising damp due to problems with the under slab membrane, or moisture travelling sideways through the slab, the tile system may become unstable when moisture is trapped under an impervious floor covering such as sheet vinyl. This needs to be considered as it can cause the floor covering to de-bond or blister. For the same reason, Ardex does not offer a recommendation for a moisture barrier system as part of this application.*

Certain types of tiles such as slates are problematic as they are intrinsically weak due to their laminated structure, and some types contain graphite which reduces topping adhesion. Slates also commonly have sealers applied.

The success of this system relies on the tiles being perfectly clean and free of all grease oil, sealers, wax etc., and cleaned back to a squeaky clean surface. Always seek professional advice to obtain a suitable commercial grade detergent or degreaser applied by means of an automatic scrubbing machine that will hold all dirt, soil, grease etc., in suspension until removal. It is essential to avoid dirt, grease, oil migration via foot traffic from soiled areas back onto cleaned areas.

It may be necessary also to lightly mechanically prepare the tile face surface to obtain a more porous and clean surface. *Where there are any doubts about either the types of tiles or their integrity, it is best to remove the tiles and mechanically prepare the surface.*

#### SURFACE PREPARATION

1. Ensure ceramic tiles are firmly bonded.
2. Remove all grease, oil, polish and any other contaminant by means of film less commercial grade detergents/degreaser, applied by means of an automatic scrubbing machine. Flush away all residue with copious amounts of clean water.
3. Allow to dry completely.
4. Prepare the surface of the ceramic tile/terrazzo to provide a mechanical key for the ARDEX P82 Ultraprime.

#### OPTION 1 - Residential

Grind the tile surface using diamond shaving/grinding equipment or sand using a 40 grit carborundum paper.

#### OPTION 2 - Commercial

Profile or remove the glazing by captive shotblasting.

5. Vacuum to remove all dust.



6. Prime ceramic tile/terrazzo with ARDEX P82 Ultraprime. Make sure that excess primer does not accumulate in the tile grout lines.

**Note:** Feather Finish does not require priming but can be applied directly to the prepared tile surface.

7. Allow primer to dry.
8. ARDEX K55 or ARDEX ARDITEX NA are mixed and applied directly to the primed surface.
9. The following self-levelling cement shall be mixed with ARDEX E25 Resilient Emulsion in the gauging water when installing over ARDEX P82 Primer. The addition ratios per 20kg bag of levelling cement as follows:-

Product	ARDEX E25	Clean water
ARDEX K15M	1.6 litres (high ratio)	4 litres
ARDEX K12N	1 litre	4.5 litres

Minimum installation thickness is 1.5mm over dense surfaces – but the recommended installation thickness is 3 – 4mm. The thicker layer provides a porous surface.

10. ARDEX FEATHER FINISH can be direct applied to the tiles with a metal trowel. A *coating sufficiently thick must be applied to fill the grout lines*. Note that thin scratch coats do not provide a porous surface and this needs to be considered when using water based vinyl adhesives.
11. Always install a test area to determine the suitability of the product for the intended use.
  - ☞ For fast track results and under vinyl flooring, ARDEX K15M is the preferred levelling cement. Allow 16-18 hours curing at 20°C before applying floor coverings.
  - ☞ Where ultra fast turn-around times are required, ARDEX K55 is an excellent choice with laying of floor coverings possible after 60-70 minutes.
  - ☞ Ardex K12N and K10 will cure in thin layers in around 4-6 hours, and coverings can normally be applied the next day. Thicker layers will take longer to cure.
  - ☞ Ardex does not recommend application of smoothing cements over tiled surfaces where the smoothing cement is to be used as a 'feature floor' or wear surface. This results in a patchwork or chequerboard effect due to surface porosity variations.

#### **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.

#### **REASON FOR REVISION**

Deletion of K10. Change of AAU manufactured A55 to Ardex GmbH manufactured K55.

#### **REVIEW PERIOD**

24 months from issue.

**NSW** 02 9851 9100, **QLD** 07 3817 6000, **VIC** 03 8339 3100, **SA/NT** 08 8406 2500, **WA** 08 9256 8600  
**Technical Services** 1800 224 070. **Customer Service and Sales** 1300 788 780

**New Zealand** (Christchurch) 64 3384 3029 **Technical Inquiries NZ** 0800 2 ARDEX

Web: <http://www.ardex.com> <http://www.ardexaustralia.com> email: [technicalservices@ardexaustralia.com](mailto:technicalservices@ardexaustralia.com)

