



## TECHNICAL BULLETIN – TB105

# ARDEX K12, K15, K125, K275 AND ARDITEX NA OVER HEBEL FLOORS

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### INTRODUCTION & SCOPE

Lightweight construction methods have been used to apply aerated autoclaved concrete panels (e.g., Hebel) to flooring applications. The primary features of this type of material that are of concern to flooring installers are its very high porosity and relatively low compressive strength compared to concrete.

The installation of ARDEX self-smoothing cements is an effective method of providing a smooth flat surface over this substrate for the installation of carpet, vinyl, or floating timber flooring in dry internal applications.

### SURFACE PREPARATION

The surface of aerated concrete is usually quite dusty, so it needs to be cleared of loose material, dirt, dust, contaminants, etc., and then *thoroughly vacuumed*.

If the subfloor is wet, it must be allowed to dry completely before toppings are applied.

If the surface is contaminated or has a pre-existing covering, mechanical preparation methods need to be used with a high degree of care, as deep gouging is a distinct possibility. The preferred method is sanding.

### PRIMING

The high porosity of autoclaved concrete means *two coats of priming* will be required before applying the floor leveling cement. In particular, the porosity will result in the 'ant holing' of the smoothing cement if priming is insufficient.

1. The primer should be ARDEX P51. The first coat must be diluted with water in the ratio of 1 part of ARDEX P51 and 3 parts of clean water. The diluted primer is applied to the surface with a broom and worked well into the pores. Allow 1-3 hours drying.
2. When the first coat of primer is dry, apply a second coat of ARDEX P51 primer, diluted with 1 part primer and 1 part water. This second coat is also applied with a broom and allowed to dry for a minimum of 30 minutes.

### PATCHING

Patching or filling the floor joints and other holes may be necessary. ARDEX A45 is recommended for this application. Due to the high porosity of the aerated concrete, patching should be done over a primed surface.

When the ARDEX A45 has cured, it should be re-primed before the application of the topping cement. The primer should be ARDEX P51 diluted with 1 part to 2 parts of water.

### APPLICATION OF SMOOTHING CEMENT



The self-smoothing cement can be applied over the primed surface, and the recommended minimum thickness is 3-4mm. The addition of ARDEX E25 improver is recommended to improve the ARDEX K15, K125, K275 and ARDEX K12 properties.

Where ARDEX K15 Microtec is used, the requirement for ARDEX E25 is optional, however where it is used the mix ratio is, mix 1 litre of ARDEX E25 improver with 4.5 litres of water per 20kg bag of K15M.

ARDEX K125, K275 and ARDEX K12 require ARDEX E25. The mixing ratio is as follows.

Mix 1.25 litres of ARDEX E25 improver with 3.75 litres of water per 20kg of K125.

Mix 1.25 litres of ARDEX E25 improver with 3.75 litres of water per 20kg of K275.

Mix 1 litre of ARDEX E25 improver with 4.5 litres of water per 20kg bag of K12N.

Refer to the product datasheets for details of mixing and drying times.

## PATCH MORTARS

It is also feasible to apply thin coats of the patch mortar over Hebel to repair damage such as broken-off pieces or divots. The surface of AAC can be smoothed with ARDEX Feather or ARDEX Fine Finish, and also ARDEX A30. Damage can be repaired with ARDEX A45 and ARDEX A46 patch mortars. These materials will dry very rapidly over AAC, and priming the surface with P51 will increase the working time.



## PRECAUTIONS

The compressive strength of aerated concrete is approximately 4.5MPa, while the smoothing cements achieve around 30MPa after 28 days. The system's load capacity will be limited by the subfloor rather than the toppings. Therefore, specifiers should determine the expected floor loadings and confirm that the floor coverings can resist these loadings to avoid indentations or damage to the subfloor.

Always install an adequate number of properly located test areas, including the flooring finish, to determine the suitability of the product for its intended use.

### 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 ISSUED