



TECHNICAL BULLETIN – TB135

ISSUES WITH USING ARDEX K15 AS A WEAR SURFACE

8th January 2025

INTRODUCTION & SCOPE

A building design feature frequently requested is the use of levelling cement as a wear surface or feature floor. The most commonly requested product in this application is ARDEX K15. However, we have also received requests for products such as ARDEX ARDITEX NA and ARDEX FEATHER FINISH. This bulletin will identify issues related to feature floors.

WHAT IS A FEATURE FLOOR?

This is a cementitious floor which has no form of floor covering and is intended to provide a raw natural look or to give an 'industrial appearance'. Where colourants, either in the form of natural oxides or acid colour etches, are used, complex patterns and appearances can be created.

WHY IS ARDEX K15 REQUESTED?

ARDEX K15 is requested in this application due to its smoothness and finish. This is an old practice that ARDEX does not encourage, but it is common for it to be misused in the field.

WHY DOESN'T ARDEX RECOMMEND K15 IN THIS APPLICATION?

ARDEX Germany designed ARDEX K15 purely as an underlayment. ARDEX Australia manufactures it for use with floor coverings such as vinyl, carpet and applied timber floors. Because it is intended as an underlayment, the following product properties are not normally observed and can become an issue where a homogenous-looking cement floor is expected.

- Variation in colour that results from slight differences in the product raw materials, the amount of gauge water used, mixing variations and degrees of 'working' the floor,
- Microcracks developing in the surface, which transfer through from the subfloor (including stress cracks from post-tensioned slabs), are often accentuated by clear sealers
- Scratching and scuffing of the surface. While ARDEX K15 has good compressive and ball impact strengths, its scratch resistance is equivalent to hardwood timber and
- Tension cracks where there have been problems with over-watering or priming

*For these reasons, ARDEX does not recommend using ARDEX K15 as a wear surface feature floor, and where an application is done in this way, there is **no product warranty available**. The same applies to ARDEX K12, ARDEX K55 and other similar smoothing cements.*

ARDEX ARDITEX NA and ARDEX FEATHER FINISH are completely unsuitable products, as they are relatively soft and easily damaged when exposed.

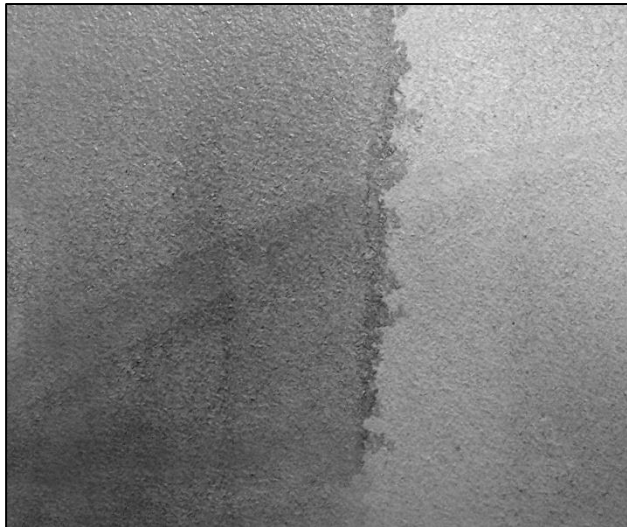
ARDEX permits using ARDEX smoothing cement with an epoxy coating (pigmented, 100% solids) as a wear surface in certain applications (refer to Technical Bulletin TB140). ARDEX K80 can be used with standard concrete sealer for light foot traffic only.



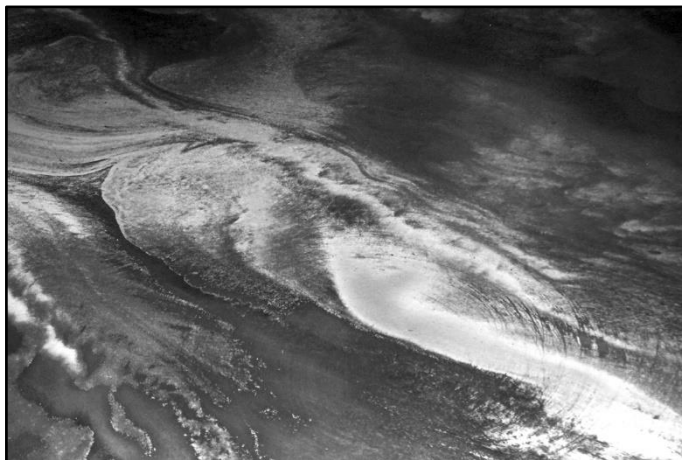
The right-hand example shows a topping cement sealed with a clear polyurethane sealer. Movement at a floor joint has produced a fine crack, which the sealer accentuates. Cracks like this do not affect the topping performance and are not seen when a floor covering such as carpet or vinyl is used.



Any marks such as trowel drag marks or changes in colour due to variations in topping colour, texture or water gauging are all brought into sharper contrast when sealed. Again, these features are not visible under normal floor coverings.



This is a sealed floor which has been subject to over-watering during smoothing cement installation. While this is an attractive swirl pattern, it also highlights softer and weaker areas defined by the white patches. Also, note the sanding marks.





This floor shows shrinkage-related cracks due to product installation problems.



Not all customers object to the effects shown above, and indeed they may be considered rustic. However, experience has shown that customer expectations often do match the end result, leading to dissatisfaction.

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

Bulletin revised to be in line with TB140, and the addition of K2 and TerrazzoMicro.

REVIEW PERIOD

24 months from issue.

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REASON FOR REVISION-ISSUER

Change of slogan and address

DOCUMENT REVIEW REQUIRED

36 months or whenever third-party suppliers change their recommendations.

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