

TECHNICAL BULLETIN

THE ISSUES WITH USING DUNLOP AND OTHER UNDERLAYMENT TYPE SMOOTHING CEMENTS AS A WEARING SURFACE 'FEATURE FLOOR'

INTRODUCTION & SCOPE

A building design feature that is frequently requested is the use of a levelling cement as a wear surface or feature floor, and the most commonly requested product in this application is from the DUNLOP range is ARDIT FLOOR LEVELLER. However, we have also received requests for products such as DUNLOP TIMBER FLOOR LEVELLER and DUNLOP FLOOR REPAIRER RAPID PATCH. Ardex Australia regularly receives requests to use inappropriate Ardex products in the same way.

In this bulletin the issues surrounding feature floors will be spelled out.

QUALIFICATION

This bulletin does not cover the DUNLOP CONCRETE RESURFACER which intended to be used as specialised finish surface.

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 are the designer's intention.

WHY IS ARDIT LEVELLER REQUESTED?

The floor smoothing cement ARDIT LEVELLER is requested in this application due to its superior smooth-

ness and finish. It is an old practice which DUNLOP does not encourage, but is a common misuse encountered in the field which we cannot control.

WHY ISN'T ARDIT FLOOR LEVELLER RECOMMEND IN THIS APPLICATION?

This smoothing cement was purely intended as an underlayment and DUNLOP 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 an homogenous looking cement floor is expected;

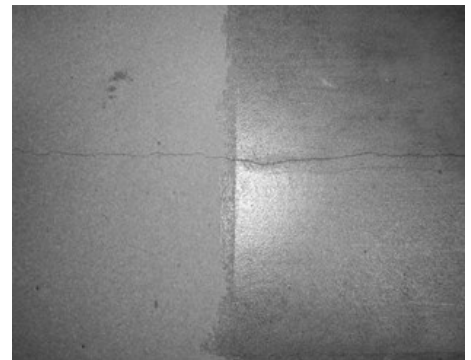
Variation in colour that results from slight differences in the product raw materials, amount of gauge water used, mixing variations and degrees of 'working' the floor,

Microcracks developing in the surface which have transferred through from the subfloor (including stress cracks from post-tensioned slabs), that are often accentuated by clear sealers

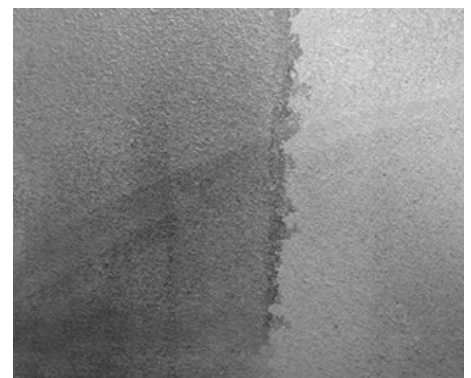
Scratching and scuffing of the surface. Whilst the ARDIT FLOOR LEVELLER has good compressive and ball impact strengths, its scratch resistance is equivalent to hardwood timber and

Tension cracks where there have been problems with over-watering or priming.

Products which are completely unsuitable are DUNLOP FLOOR LEVELLER and FLOOR REPAIRER which are relatively soft easily damaged when exposed.



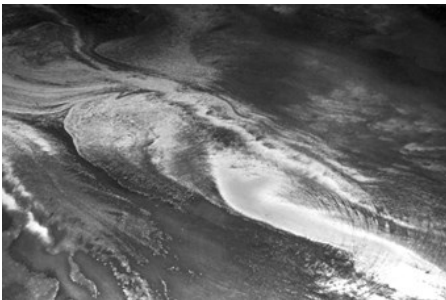
The example above shows a topping cement that has been sealed with a clear polyurethane sealer. Movement at a floor joint has produced a fine crack which is accentuated by the sealer. Cracks like this have no effect on the topping performance and are not seen when a floor covering such as carpet or vinyl is used.



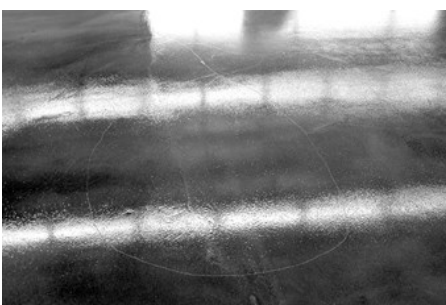
Any marks such as trowel drags or changes in colour due to variations in topping colour, texture or water gauging are all brought into sharper

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contrast when sealed. These may well be acceptable in the context of a rustic appearance, but maybe not. 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. Whilst this is an attractive swirl pattern, it also highlights softer and weaker areas defined by the white patches. Also note the sanding marks made in the surface to 'finish' the floor before being sealed.



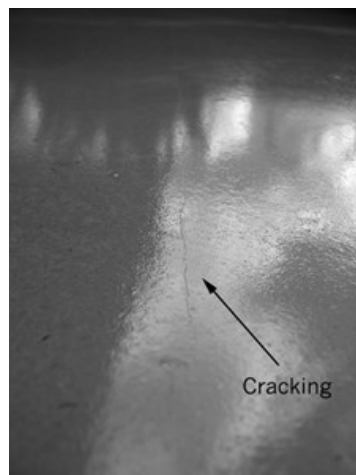
This floor shows shrinkage related cracks due to product installation problems.

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

not match the end result leading to dissatisfaction.



The above image however shows a clear problem, that is show through marks where a smoothing cement has been placed over a tiled floor. A nice checker-board pattern showing the grout lines has appeared.



The previous two pictures show a heated subfloor which has had a smoothing cement applied, and then sealed. The heating cables created a series of parallel cracks across the floor. When the floor is covered with a floor covering, these cosmetic cracks are not visible.

Notes

Always refer to the product data sheets for specific usage details.

The information contained herein 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 the product application.

Users are asked to check that the literature in their possession is the latest issue.

ARDEX AUSTRALIA PTY LTD,

ABN 82 000 550 005

7/20 Powers Road, Seven Hills, NSW. 2147.

GLOSSARY

Underlayment-This is the standard name in AS1884-2012 for subfloor smoothing cements. It is synonymous with levelling cement, levelling compound, smoothing cement, floor levelling cement and self levelling cement. It refers to materials to be used to smooth floors beneath floor coverings.