



## **SRO933 –Levelling Over Existing Floor Tiles/Terrazzo Internal Dry Area Floors Only**

### **SCOPE**

This recommendation is regarding the levelling over existing floor tiles or existing terrazzo flooring on internal dry area substrates. Included are applications for residential floors and for commercial floors where levelling is required to achieve a flat surface suitable for the new floor coverings including all types of tile, carpet and resilient floor coverings as per **ARDEX Technical Bulletin TB017**.

### **PREPARATION**

The existing tiles, all types including glazed ceramics, porcelain, terrazzo and natural stone tiles; must be on structurally sound internal substrates that do not exhibit excessive deflection as defined in AS1884-2012. The existing floor tiles must be sound and well secured to the substrate. Any loose, broken or drummy tiles should be removed and the void filled with a repair mortar such as [ARDEX A 45](#). Any movement joints in the floor where the flexible sealant is damaged and/or incomplete raked out and new sealant applied to re-form the joint.

The existing tiles must be checked for their suitability as a substrate for levelling. Certain types of tile, such as slate with a weak laminated structure, or those containing graphite are unsuitable while porous bodied tiles and/or terrazzo with applied sealers can be equally difficult for the levelling cements to achieve the required adhesion.

The success of the system relies on the existing tiles being perfectly clean and dry. Tiled surfaces may be cleaned with commercial grade detergents and degreasers (applied with an automatic scrubbing machine) that will hold the loosened grime in suspension until removal by wet vacuums. Rinse the area with copious amounts of water then vacuum up the rinse water as soon as possible to remove any residual grime laden detergent.

The cleaned surface is to be mechanically prepared to provide a clean 'keyed' surface. Vacuum to remove any residual dust and let the floor dry. It is important to ensure the prepared surface is kept clean of all contaminants and that contaminants are not carried by foot traffic from adjacent soiled floors. Mechanical preparation is advised for the floor levelling products but is not required if Feather Finish is to be used.

**Note:** *Where there is a moisture problem, such as rising damp or moisture migrating sideways through the slab, the completed installation may become unstable as moisture is trapped under impervious floor coverings (e.g. vinyl) and/or large format tiles. Bubbling of resilient floor coverings and/or loss of bond of the original tiles may occur.*



Where there are any doubts about the suitability or the integrity / security of the existing tiles, it is best to remove these tiles and mechanically prepare the exposed substrate as if for a new levelling cement installation.

#### PROCEDURE TO CLEANED DRY SURFACES

##### Option 1 – Residential floors

Grind the cleaned surface with diamond grinder or sand with 40 grit carborundum paper. Vacuum to remove dust.

##### Option 2 – Commercial; Floors

Profile or remove the glaze by captive shot-blasting or diamond grinding. Vacuum to remove dust.

#### PRIMING

Once the surface of the tiles has been mechanically prepared, apply [ARDEX P 82](#) primer. Ensure excess primer is brushed out of the tile grout lines and that the prime coat is as thin as possible. The primer will dry clear and the minimum dry time is 3 hours.

#### LEVELLING

The following levelling cements are suitable for these applications;

ARDEX Levelling/ Smoothing Cement	Prime Substrate with ARDEX P82	ARDEX E25 Additive Required	Water Required
Feather Finish	Not Required - apply directly to cleaned surface.	NO	As per data sheet
Arditex NA Two part system	Yes	NO	NO
K55 Rapid 20kg bag	Yes	NO	5.25 litres
K15 Microtec 20 kg bag	Yes	1.6 litres	4 litres
K12 N 20 kg bag	Yes	1 litre	4.5 litres



<b>K120 20 kg bag</b>	Yes	1.6 litres	3.5 litres
<b>K220 20 kg bag</b>	Yes	1.6 litres	3.5 litres

The [ARDEX Feather Finish](#) can be applied directly onto the cleaned tiles using a steel trowel to achieve sufficient thickness to fill the grout lines. This layer may be too thin and not be porous enough for water based vinyl adhesives to bond & set correctly.

[ARDEX Arditec NA](#) two part system and [ARDEX K 55](#) are mixed and applied directly to the primed surface while the other cements must be mixed with the [ARDEX E 25](#) additive & water. All products are to be applied 3-5mm thick (minimum) although they can be thicker within the limits given on each product data sheet.

- Always install a test area to determine the suitability of the product for the intended use.
- For fast track results and under resilient flooring, [ARDEX K 15 Microtec](#) is preferred. Allow 16 – 18 hours curing/drying @ 23°C before applying these floor coverings.
- Where the faster turn-around times are required, [ARDEX K 55](#) is preferred to allow the laying of floor coverings after 70 minutes curing/drying @ 23°C.
- [ARDEX K 12N](#) and [ARDEX Arditec NA](#) will cure in thin layers in approximately 4 hours and floor coverings can be installed after 24 hours.

*Note: While ARDEX levelling cements can be applied over prepared existing tile/terrazzo substrates, the recommendation is to ensure sufficient thickness of leveller is provided to ensure there is no “show through” of the grout lines. Thus the minimum is the 3-5mm thickness for products other than the [ARDEX Feather Finish](#) which can be applied to a maximum 3mm thickness.*

*Disclaimer:*

*The recommendation selected is based upon questions answered on the ARDEX Australia website. This recommendation is designed as a general application for your described situation and should not be considered site specific documentation for general distribution. Always consult the latest relevant ARDEX Technical Bulletins and information on the product packaging and/or product data sheets (available on the ARDEX Website). Australian and other relevant standards should be followed during installation. If you have any further questions or would like further clarification please contact the ARDEX Technical Services Hotline on 1800 224 070 (9am to 5pm Monday to Friday).*