



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 new floor coverings including all types of tile, carpet, and resilient floor coverings.

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 AS1884-2021. 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 patching compound 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 loosen grime in suspension until removal by wet vacuums. Rinse (with copious amounts of water) the area and 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 now to ensure the prepared surface is kept clean of all contaminants and that contaminants are not carried by foot traffic from adjacent soiled floors.

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

Option 1: Once the surface of the tiles has been mechanically prepared, apply [ARDEX P 82](#) primer. Mix equal volumes of part A and B after making sure each is individually component is well-mixed. 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. The minimum dry time is 3 hours, with a maximum time of 24 hours.

Option 2: Once the surface of the tiles has been mechanically prepared, apply [ARDEX P9](#) primer diluted 1:1 with water. Allow to dry for at least 20 minutes.

LEVELLING

The following levelling compounds are suitable for these applications.

| ARDEX Levelling/ Smoothing Compound | Prime Substrate with ARDEX P82 or ARDEX P9 | ARDEX E25 Additive Required | Water Required |
|---|--|--------------------------------|----------------|
| Feather Finish Smoothing Compound 10kg bag | Not Required - apply directly to prepared surface. | NO | 4.8L |
| 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 | 4.0 litres |
| K12 N 20 kg bag | YES | 1 litre | 4.5 litres |



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|---------------------------|-----|------------|------------|
| K120 20 kg bag | YES | 1.6 Litres | 3.5 Litres |
| K220 20 kg bag | YES | 1.6 Litres | 3.5 Litres |

The [ARDEX Feather Finish](#) can be applied directly onto the prepared 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 floor coverings.
- Where faster turn-around times are required, [ARDEX K 55](#) is preferred to allow the laying of floor coverings after 2-3 hours 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 compounds 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.

Note: This recommendation is not for feature floors or exposed surfaces as show through of grout lines will occur.

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).