



## SRO931 Levelling Internal Dry Floors – New Concrete

### SCOPE

This recommendation is regarding the levelling of internal dry area, concrete floors prior to the installation of most types of floor finishes. It applies to new concrete substrates but does not apply to internal wet areas.

### PREPARATION

All new concrete shall have completed the minimum 4 weeks curing & drying period to allow the development of any micro-cracks as any cracking will continue through any applied levelling cement.

The moisture content of all concrete substrates shall be determined by the methods described in **AS1884-2012, Appendix E**. The relative humidity within (at 40% slab thickness) the concrete is determined (over 72 hours) and where the result is less than 75% RH, the levelling cement and/or sheet vinyl may be installed. Where the result is greater than 75% RH, the concrete is too damp for the installation of levelling cements and/or the sheet vinyl and a moisture barrier will be required.

For new concrete where the required minimum moisture content cannot be achieved in the available time, the following are systems for treating the “green” concrete prior to the application of levelling/smoothing cements:

1. [ARDEX WPM 368](#) – One part moisture barrier that does not require “sand seeding”. Applied over “green” concrete in 2 coats to achieve a waterproof barrier prior to installation of levelling cements.
2. [ARDEX WPM 300 Hydrepoxy](#) – applied as a moisture barrier to new concrete that is at least 7 days old and at least 20MPa compressive strength. This is normally applied in 2 coats with “sand-seeding” of the wet top coat.
3. [ARDEX S 4 Green Slab Seal](#) – applied as soon as the new concrete is hard enough to walk and within 48 hours of the concrete being cast, it acts as a curing agent. Alternatively it is applied to new concrete that is at least 14 days old (but less than 28 days old) with a moisture content of  $\leq 7\%$  and falling. This system is recommended for large floors particularly.
4. [ARDEX PU 30 Rapid](#) – applied as a one-component polyurethane primer and green slab sealer for use on internal and external porous and non-porous substrates.

New concrete substrates shall be mechanically (by grinding, shot-blasting, scabbling or scarifying) prepared to remove all contaminants such as curing compounds, weak surfaces, laitance, waxy/oily residues and debris from other trades to achieve an open pored surface. Vacuum to remove residual dust.



**Note:** the [ARDEX S 4 Green Slab Seal](#) treated concrete is sanded and vacuumed 24 hours after application to remove contaminants purged from the concrete. It is ready for the levelling cement to be applied with no further priming required.

**Note:** The [ARDEX WPM 300 Hydrexoxy](#) treated concrete is brushed / vacuumed to remove any loose sand. It is ready for the levelling cement to be applied with no further priming required.

For new concrete substrates that have achieved the required moisture content (as defined according to AS1884-2012), the surface is primed with [ARDEX P 51 PRIMER](#) and allowed to dry (3 hours minimum).

The following table is a guide to the levelling/smoothing cements for new concrete floor substrates. The applications >10mm with bulk fill aggregate can be used to create ramps and falls as required.

<b>ARDEX Levelling and/or Smoothing Cement</b>	<b>Internal Floor finish type</b>	<b>Application Thickness &lt;10mm No aggregate</b>	<b>Application Thickness &gt;10mm with aggregate</b>	<b>Recommended Aggregate for &gt;10mm thick applications</b>
<b>K15 MICROTEC</b>	Tiles- all types Linoleum, Vinyl, carpet	yes	Any thickness	Equal mix with 2-5mm washed & dry aggregate
<b>K12N</b>	Tiles- all types Linoleum, Vinyl, carpet	yes	Max. 50mm	Equal mix with 2-5mm washed & dry aggregate
<b>K250,K120 K220</b>	Tiles- all types Linoleum, Vinyl, carpet	yes	Max. 50mm	Equal mix with 2-5mm washed & dry aggregate
<b>Arditex NA</b>	Tiles- all types Linoleum, Vinyl, carpet	yes	Max. 30mm	Equal mix with 3mm aggregate
<b>K005 Bulk Fill</b>	ARDEX levellers as above at less than 10mm thick.	No	10 -120mm	Not required
<b>LQ92</b>	Tiles – all types	yes	Max. 25mm	Equal mix with 2-5mm washed & dry aggregate
<b>A45 &amp; ARDEX A30</b>	Tiles- all types Linoleum, Vinyl, carpet	Yes	Max.30mm	Equal mix with 3mm washed & dry aggregate



**Notes:** Tiles - all types include ceramic, porcelain and natural stone tiles.

[ARDEX A 45](#) & [ARDEX A 30](#) Patching/ Repair Mortars can be used for ramping & coving to create falls in small areas.

Once the ARDEX levelling systems have set and dried, minor surface imperfections in the levelled surface can be smoothed using the [ARDEX Feather Finish](#) (maximum 3mm thick). The various floor finishes can now be applied. Tile finishes can be adhesive fixed using the ARDEX tile adhesives & grouts nominated in the Tiling

**Specifications:** Carpet and resilient floor coverings can be installed using the following ARDEX Adhesives:

- For resilient floor coverings, use [ARDEX AF 178](#) sheet vinyl adhesive.
- For Linoleum, use [ARDEX AF 748](#).
- For carpet, use [ARDEX AF 266](#) or [ARDEX AF 241](#) adhesives.

All ARDEX levelling cements and adhesives shall be mixed and used in accordance with the product data sheets. **ARDEX Technical Bulletin TB102** relates to the addition of aggregate to the levelling cements.

*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).*