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# ARDEX K15

## Self-Levelling & Self-Smoothing Cement

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Ardurapid technology

Feather edge to any thickness in one application

Widely recognised self levelling flooring compound

Multi-use for residential and commercial application

Can be applied by trowel or pump

Ideal for use with ARDEX flooring adhesives

Low VOC content and user friendly

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# ARDEX K15

## Self-Levelling & Self-Smoothing

### PRODUCT DESCRIPTION

ARDEX K15 is a special cement blend. When mixed with water, it becomes a liquid compound which when spread above 2-3mm produces a smooth flat surface. ARDEX K15 hardens quickly and achieves high early strength. It will not shrink or spall, even when applied in thick layers. ARDEX K 15 is walkable after 2 hours and most floor coverings can be installed 16 to 18 hours later at 20°C.

### SUBSTRATES

ARDEX K15 will level and smooth internal dry concrete slabs prior to the installation of resilient flooring, ceramic tile, carpet, wooden parquet, athletic floors etc. ARDEX K15 can be applied at any thickness in a single operation for indoor installation.

### SURFACE PREPARATION

Concrete floors must be solid, thoroughly clean and free of oil, wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant.

Mechanically clean the floor to provide a roughened, clean, sound, solid and open porous matrix of the concrete, by using recommended preparation methods such as shot-blasting, scarifying, diamond grinding/shaving or other suitable method.

Acid etching is not an acceptable method of cleaning the sub-floor. Do not use solvents or sweeping compounds to clean the sub-floor. Sub-Floors must be dry as per current Australian Standard and properly primed for a successful installation. Direct to earth subfloors must have an effective damp-proof membrane, or use ARDEX MOISTURE BARRIER system. Sub-Floor temperatures must be a minimum of 10°C and increasing for the installation of ARDEX products. For further information contact ARDEX technical services

For power-trowelled (burnished) concrete and hi-strength concrete greater than 35MPa, contact ARDEX technical services for further information on surface preparation.

Non-porous floor, such as terrazzo, ceramic and quarry tiles, and epoxy coatings; must be solid, well bonded and properly cleaned and primed with ARDEX P 82. Steel decking should be rigid and treated with an anti-corrosive two part epoxy zinc phosphate primer before priming with ARDEX P 82.

NOTE: This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure nor in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor covering. This product is not a vapour barrier and will allow free passage of moisture. Follow the directive of the floor-covering manufacturer regarding the maximum allowable substrate moisture content and test the substrate prior to installing ARDEX K15.

### PRIMING

Use ARDEX P51 over standard concrete floors prior to the installation of ARDEX levelling compounds. Mix 1 part ARDEX P 51 with 2 parts water and apply evenly using a push broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles of excess primer. Allow to dry to a thin, clear film (min. 3 hours, max. 24 hours). Very absorbent concrete may require two applications of primer to avoid pinholes and bubbling in the levelling compound. In such cases, make the initial coat 1 part ARDEX P 51 diluted with 3 parts water. Allow to dry and install a second coat of 1 part ARDEX P 51 diluted with 1 part water. Allow to dry to a thin, clear film (min. 3 hours, max. 24 hours).

Use ARDEX P 82 for non porous substrates. Mix part A (red) with part B (white) and apply with a short-nap or sponge paint roller, leaving a thin transparent pink coat of primer no heavier than a coat of paint. Do not leave any bare spots. Roll off any areas of excess primer. Allow to dry to a thin, slightly tacky film (min. 3 hours, max. 24 hours). ARDEX P 82 must be applied in a thin layer within 1 hour of mixing. Refer to the Mixing Ratio section for adjustment of mix design when using ARDEX P 82 under ARDEX K 15.

Note: Low subfloor temperatures and/or high ambient humidity require longer drying time for ARDEX primers. Do not install levelling compounds until primers have dried thoroughly.

### MIXING RATIO

4.5 – 5.0 litres of water to 20 kg of ARDEX K 15.

IMPORTANT: When used in conjunction with ARDEX P 82, mix 1 litre of ARDEX E 25 with 4.5 litres of water per 20kg bag of ARDEX K 15.

For high stress areas, mix 1.6 litres of ARDEX E 25 with 4.0 litres of water per 20kg bag of ARDEX K 15.

### MIXING

ARDEX Floor levelling products react and harden very quickly when mixed with water. Thorough mixing in the shortest time is essential to ensure the powder and water is evenly dispersed throughout the mix to obtain a lump-free mortar. Always mix the powder into the water. Concrete mixers and hand mixing are not suitable methods.

The most efficient method of mixing is by using an ARDEX mixing paddle and a heavy-duty electric drill (650 rpm). Normal mixing time of a 20kg bag using an electric drill or paddle is 2 to 3 minutes.

To 4.5 - 5.0 litres of water, add ARDEX K 15 powder whilst mixing thoroughly. Do not over-water. Or 1 part water to 3.5 parts of ARDEX K 15 powder by volume.

## MANUAL INSTALLATION

Pour the mixed ARDEX K 15 onto the prepared subfloor. Wear football boots with rubber or nylon studs to avoid leaving unnecessary marks in the liquid ARDEX K 15. Spread into place using the ARDEX gauging rake with height adjustment to obtain an even thickness. Use the ARDEX stand-up spreader for smoothing and where necessary the ARDEX hand trowel. Do not rework ARDEX K 15 after 5 minutes.

ARDEX K 15 can be walked on 2 to 4 hours after installation and can be covered with most floor coverings the next day, regardless of thickness (depending on ambient temperatures).

## PUMPING INSTALLATION

For ease and efficiency of application ARDEX K 15 can be pumped using a suitable Automatic Mixing Pump. Follow the instructions as set by the pump manufacturer.

Contact ARDEX technical services for further information.

## THICKNESS

On dense sub-floors such as ceramic, terrazzo, smooth dense concrete etc., an ARDEX K 15 mortar layer of 2-3mm layer thickness is required.

ARDEX K 15 can be installed from featheredge to any thickness in one operation. However, for large areas with a thickness over 10mm we recommend to mix ARDEX K 15 with a well-washed and dried graded fine gravel 2-5mm.

Mix ARDEX K 15 with water first, and then add the aggregate while still mixing.

To install additional layers of ARDEX K 15, allow the first layer to dry 12-16 hours at 20°C. Prime the surface with 1 part ARDEX 51 mixed with 2 parts water, following priming instructions. Allow the primer to dry thoroughly (min 3 hours, max 24 hours) then install an additional layer of neat ARDEX K 15.

NOTE: ARDEX K 15 is a cement-based material. Remember that you are installing a very thin cementitious topping which will instantly adopt the temperature of the sub-floor. Do not install below 10°C surface temperature. Never mix with cement or additives. DO NOT OVERWATER.

## COVERAGE

Approximately 1.5kg powder/ mm/ m<sup>2</sup>

A 20kg bag will cover approximately 4m<sup>2</sup> at 3mm thickness

## TECHNICAL DATA

<b>Powder bulk density:</b>	approx 1.2 kg/litre
<b>Flowing Time:</b>	10 minutes
<b>Fresh mortar weight:</b>	approx 1.9kg/litre
<b>Walkability:</b>	approx 2 hours after application

<b>Ready to receive floor coverings:</b>	16-18 hours after application at 20°C
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### Compressive Strength:

<b>After 1 day</b>	approx 15 MPa
<b>After 3 days</b>	approx 20 MPa
<b>After 7 days</b>	approx 25 MPa
<b>After 28 days</b>	approx 30 MPa

### Tensile Bending Strength:

<b>After 1 day</b>	approx 5 MPa
<b>After 3 days</b>	approx 6 MPa
<b>After 7 days</b>	approx 7 MPa
<b>After 28 days</b>	approx 10 MPa

### Ball Pressure Hardness:

<b>After 1 day</b>	approx 40 MPa
<b>After 3 days</b>	approx 50 MPa
<b>After 7 days</b>	approx 55 MPa
<b>After 28 days</b>	approx 60 MPa

## STORAGE

ARDEX K 15 has a shelf life of approx 12 months if stored in dry conditions in the original unopened packaging.

## HEALTH AND SAFETY

ARDEX K 15 contains Portland cement and Quartz sand. Avoid generation of dust. Do not inhale dust. Avoid contact with eyes or skin. Wear suitable protective gloves and safety glasses. In case of contact with eyes, rinse opened eye for several minutes under running water. In case of contact with skin, rinse affected areas thoroughly with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear and rinse mouth with running water. If symptoms persist, seek medical advice.

## GUARANTEE

ARDEX products are generally warranted for 10 years when installed to relevant Australian Standards and applicable ARDEX specification, technical data sheet and instruction for application and use. While we assure customers the high standard and quality of our products and services, we accept no liability for any loss or damage which arises from particular site conditions, poor handling and storage or installation by unqualified and unskilled applicators.

## DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent best of our knowledge and experience at the time of printing. It is your responsibility to ensure that our products are used and handled correctly and in accordance with any applicable Australian Standard, our instructions are recommendations and only for the uses they are intended. We also reserve the right to update information without prior notice to you to reflect our ongoing research and development program.

Country specific recommendations, depending on local standards, codes of practice building regulations or industry guidelines may effect specific installation recommendations. The supply of our products and services is also subject to certain terms, warranties and exclusions, which may have already been disclosed to you in prior dealings or are otherwise available to you on request. You should make yourself familiar with them. © ARDEX Australia Pty Ltd 2011. All aforementioned products are the trade marks of ARDEX Australia Pty Ltd, its licensors and affiliates.

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