



ARDEX K12

Levelling and Smoothing Compound

Super smooth – requires no sanding

Versatile – apply 1.5mm to 35mm in one application

Rapid hardening – walkable from 2 hrs

Superior flow – fast application

ARDEX Australia Pty Ltd
2 Buda Way,
Kemps Creek, NSW 2178
Phone: 1300 788 780
Email: technicalservices@ardexaustralia.com
www.ardexaustralia.com

ARDEX New Zealand Ltd
15 Alfred Street, Onehunga Auckland,
New Zealand 1061
Phone: 0800 227 339
Email: info@ardexnz.com
www.ardex.co.nz

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DESCRIPTION

ARDEX K 12 is an advanced cement and polymer based levelling and smoothing compound. ARDEX K 12 is formulated to smooth and level large commercial and retail areas.

Once dry it is suitable for the application of vinyl, carpet, timber and tile floor finishes. Unlike normal hydration levellers, ARDEX K 12 will harden and dry at temperatures down to 10°C.

SUBSTRATES

New and existing concrete, ARDEX A 38, ARDEX A 48, ARDEX K 900 BF.

Substrates with special requirements (Contact ARDEX Technical Services or view relevant Technical Bulletin online)
Moisture vulnerable concrete, compressed fibre cement flooring, terrazzo, quarry and ceramic tiles, concrete sub floors with electric under floor heating, existing epoxy coatings, lightweight autoclave concrete, primer treated metal, patching timber under underlay sheets

SURFACE PREPARATION

Concrete floors must be solid, clean, and free of wax, grease, asphalt, latex compounds, curing and sealing compounds, and any other surface contaminants. To prepare the concrete floor, mechanically clean it using shot blasting, scarifying, diamond grinding, shaving, or other suitable methods to create a roughened, clean, sound, solid, and open porous surface. Acid etching is not an acceptable method for cleaning the sub floor. Do not use solvents or sweeping compounds.

The sub floor must be dry (AS 1884) and primed properly for successful installation.

Where a sub floor vapour barrier is incomplete or missing contact ARDEX Technical Service

The sub floor temperature must be at least 10°C. For more information, contact ARDEX Technical Services

Non-porous floors, such as terrazzo, ceramic and quarry tiles, and epoxy coatings: must be solid, well bonded and properly cleaned and primed with ARDEX P 82 or ARDEX P 9 Primer

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

Steel decking - Refer to ARDEX Technical Services

NOTE: This product is intended for interior use over dry substrates only. Do not use in areas of constant water exposure or in areas exposed to permanent or intermittent substrate moisture, as this may jeopardize the performance of the underlayment and the floor coverings.

PRIMING

Porous Substrates

To prepare standard concrete floors for the installation of ARDEX levelling compounds, apply ARDEX P 51 primer. Mix 1 part ARDEX P 51 with 2 parts water and apply evenly with a bristle broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off any puddles of excess primer. Allow the primer to dry to a thin, clear film for at least 3 hours and up to 24 hours.

For very absorbent concrete, two applications of primer may be required to avoid pinholes and bubbling in the levelling compound. In these cases, make the initial coat 1 part ARDEX P 51 diluted with 3 parts water. Allow the primer to dry and then apply a second coat of 1 part ARDEX P 51 diluted with 1 part water. Allow the primer to dry to a thin, clear film for at least 3 hours and up to 24 hours.

Non-Porous Substrates

ARDEX P 9 is diluted with water 1:1 by volume and apply with a brush or roller with applications of leveller able to take place after approximately 20 minutes at 23°C and 50% relative humidity. Ensure ARDEX P 9 single part primer is fully dry prior to the application of the leveller compound.

ARDEX P 82 is mixed part A (red) with part B (white) and apply with a short-nap or sponge paint roller. Leave 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 the primer to dry to a thin, slightly tacky film for at least 3 hours and up to 24 hours.

DAMP OR GREEN CONCRETE

When a concrete substrate moisture content is measured at greater than 80% relative humidity (ASTM F2170) or exceeds 15gm/m²/24hrs (ASTM F1869) when tested in accordance with AS 1884.

Option 1 - A single coat of ARDEX WPM 300 applied at 3m²/litre will act of a moisture stop for green concrete not subject to rising damp or permanent moisture. To make ready for a levelling compound, ARDEX Primer Sand should be broadcast over the wet ARDEX WPM 300 as per the technical data sheet. Let cure overnight prior to removing the excess sand

Option 2 - A single coat of ARDEX WPM 368 applied at 3m²/litre per coat acts as a moisture stop for 'green concrete' not subject to rising damp or permanent moisture. The ARDEX levelling compound can be applied directly onto the cured WPM 368 without the need of primer

Where rising damp is present or concrete moisture exceeds 90% RH, consult ARDEX technical bulletin 192 - Smoothing Cement - Moisture Barrier Systems or contact ARDEX Technical Services (1300 788 780)

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MIXING RATIO

The mixing ratio for ARDEX K 12 is 4.8 litres of water to 20kg of powder.

When used in conjunction with ARDEX P 82 and for high stress areas e.g., Under floor heating, mix 1litre of ARDEX E 25 with 4.5 litres of water per 20kg bag of ARDEX K 12.

MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. It is essential to mix the powder into the water thoroughly and quickly to ensure a lump-free mortar. The most efficient method of mixing is to use an suitable mixing paddle and a heavy duty electric drill (650rpm).

The normal mixing time for a 20kg bag is 2 to 3 minutes.

Note: Concrete mixers and hand mixing are not suitable methods of mixing.

MANUAL INSTALLATION

Pour the mixed ARDEX K 12 onto the prepared subfloor. Wear football boots with rubber or nylon studs to avoid leaving unnecessary marks in the liquid ARDEX K 12. 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 12 after 10 minutes.

If required, additional layers of ARDEX K 12 can be applied once the previous layer has hardened sufficiently. Prime between layers.

PUMPING INSTALLATION

For ease and efficiency of application ARDEX K 12 can be pumped. To ensure compatibility, contact ARDEX Technical Services for guidance and check the suitability from the pump manufacturer.

THICKNESS

ARDEX K 12 can be applied from 1.5mm to 35mm thickness in one application. For areas requiring a thickness over 35mm, ARDEX K 12 can be mixed with a well washed and dried 2–5mm aggregate.

Mix ARDEX K 12 with water (4.8L) first then add the aggregate (up to an equal weight of the powder) whilst mixing.

COVERAGE

Approximately 1.7kg powder/mm/m².

A 20kg bag will cover approximately 4m² at 3mm thickness.

SHELF LIFE

ARDEX K 12 has a shelf life of 12 months when stored in the original unopened packaging, in a dry place at 23°C and 50% relative humidity.

DRYING-HARDENING

Walkable: 2-3 hrs

Ready for tiles once walkable.

Ready for floor coverings in 18 hrs.

Drying time is dependent on job site temperature, humidity, installation thickness and floor covering type. (Based on 23°C and 50% RH.)

SAFETY DATA

This product causes skin irritation and may cause an allergic skin reaction. It causes serious eye damage and may cause respiratory irritation. This product may cause cancer and causes damage to organs through prolonged or repeated exposure. In case of contact with the eyes rinse with running water until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Wear protective gloves, clothing, eye and face protection. Avoid inhaling dust/ fumes. Ensure adequate ventilation during mixing and application. Store locked up. Check with your local Council regarding the disposal of contents, dispose of packaging thoughtfully. Keep out of the reach of children.

Call the Poisons Information Centre on 131 126 (AUS) and 0800 764 766 (NZ) or call a doctor if you feel unwell. Additional information is in the Safety Data Sheet (SDS) at ardexaustralia.com

PLEASE PAY ATTENTION TO THE FOLLOWING

This product is not designed as a decorative finish and may have some colour variations that will in no way adversely affect the performance of the product.

Note: Low sub-floor temperatures and/or high ambient humidity will result in longer drying times.

TECHNICAL PROPERTIES

Mixing Ratio	4.8L per 20kg bag
Colour	Grey
Bulk Density of Powder	Approx 1.3kg/L
Coverage	4m ² at 3mm
Weight of Fresh Mortar	2.0kg/L
Walkability	Approx 2 -3 hours
Floor Coverings	18 hours @ 23°C

COMPRESSIVE STRENGTH

After 1 day	Approx 15 MPa
After 7 days	Approx 25 MPa
After 28 days	Approx 30 MPa

FLEXURAL STRENGTH

After 1 day	Approx 5 MPa
After 7 days	Approx 7 MPa
After 28 days	Approx 10 MPa

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GUARANTEE

ARDEX Australia Pty Ltd (“we” or “us”) guarantees this product (“our goods”) is free from manufacturing defects and will perform to any applicable specification published by us for 10 years from the date of purchase. Our liability under this guarantee is limited at our option to replacement of the product, repair of any damage to the immediate surface or area of application of the product, or compensation, in each case if we are satisfied loss or damage was due to a breach of this guarantee. This guarantee does not apply if damage or loss is due to failure to follow published instructions or any act or circumstance beyond our control, including shade variations and efflorescence. If you wish to make a claim under this guarantee you must notify us (ARDEX Australia Pty Ltd, 2 Buda Way Kempas Creek NSW 2178; Toll Free: 1800 224 070; Email: technicalservices@ardexaustralia.com) and provide evidence of your purchase of the product within 30 days of any alleged loss or damage occurring. We reserve the right to ask you for satisfactory evidence of any alleged loss or damage. Any claim under this guarantee is at your cost. This guarantee is in addition to any rights or remedies you may have as a “consumer” under the Australian Consumer Law and to that extent you need to be aware that: “Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss of damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure”.

DISCLAIMER

The technical details, recommendations and other information contained in this data sheet are given in good faith and represent the 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 Standards. Our instructions and recommendations are only for the uses they are intended. Users are advised to confirm that this product is suitable for their application and conforms with the specifications of the system. 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 affect 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.

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This datasheet was issued in March 2025 and is valid for 3 years, in some instances a newer version may be published.

Always refer to ardexaustralia.com for the latest technical data from ARDEX Australia Pty Ltd.