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# ARDEX K 12

## Levelling and Smoothing Compound

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Super Smooth – Requires no sanding

Versatile – Apply 1.5mm to 25mm in one application

Rapid Hardening – Walkable from 2 hours

Superior Flow – Fast application

Flexible – Hand mix or pump application

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# ARDEX K 12

## Levelling and smoothing compound

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### DESCRIPTION

ARDEX K 12 is an advanced cement and polymer based levelling and smoothing compound. ARDEX K 12 is formulated for experienced commercial contractors to smooth and level large commercial and retail areas. Once dry it is suitable for the application of vinyl, carpet and tile floor finishes.

Unlike normal hydration levellers, ARDEX K 12 will harden and dry at temperatures down to 5°C.

### SUBSTRATES

ARDEX K 12 is designed for levelling and smoothing on internal dry concrete slabs.

### 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. Mechanically prepare the floor using recommended preparation methods such as shotblasting, scarifying, diamond grinding, shaving or other suitable methods to provide a roughened, clean, sound, solid and open porous surface.

Acid etching is not an acceptable method of cleaning the subfloor. Do not use solvents or sweeping compounds.

Subfloors must be dry (AS 1884-1985) and properly primed for successful installation. Subfloor temperatures must be a minimum of 5°C.

For further information, contact ARDEX technical services.

### PRIMING

Use ARDEX P 51 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 ULTRA PRIME for non porous substrates<sup>1</sup>. 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 'Note 2' for adjustment of mix design when using ARDEX P 82 ULTRA PRIME.

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.

Note 1: For high strength, burnished or polished concrete contact ARDEX technical services.

### MIXING RATIO

4.5 litres of water to 20 kg of ARDEX K 12.

Note 2: When used in conjunction with ARDEX P 82 ULTRA PRIME, mix 1.25L ARDEX E 25 + 3.75L water per 20kg bag of K 12.

### MIXING

ARDEX floor levelling products react and harden quickly when mixed with water. Thorough mixing in the shortest possible time is essential to ensure a lump free mortar. Always mix the powder into the water. 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 20 kg bag is 2 to 3 minutes. Concrete mixers and hand mixing are not suitable methods of mixing.

To 4.5L of water, add the ARDEX K 12 (20 kg) whilst mixing thoroughly. Do not overwater.

### 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.

### PUMPING INSTALLATION

For ease and efficiency of application, ARDEX K 12 can be pumped with a Levelcraft Automatic Mixing Pump or equivalent.

Contact ARDEX technical services for detailed information on pumping.

### THICKNESS

ARDEX K 12 can be applied from 1.5mm to 25mm thickness in one application or to a maximum of 10mm over ARDEX P 82 ULTRA PRIME.

For areas requiring a thickness over 25mm and up to 50mm, ARDEX K 12 can be mixed with a well washed and dried 2-5mm aggregate. Mix ARDEX K 12 with water (4.2L) first then add the aggregate (up to an equal weight of the powder) whilst mixing.

## COVERAGE

Approximately 1.7kg powder/mm/m<sup>2</sup>.

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

## HARDENING-DRYING

ARDEX K 12 when applied in a 3mm layer will harden after approximately 2 hours at 23°C, and can be walked on after this time.

ARDEX K 12 when applied up to a 5mm layer is usually ready for floor coverings in 24 hours. Always comply with the floor covering manufacturer's moisture instructions.

Hardening and drying times will be extended when applied in cool ambient temperatures or onto cold substrates. Thicker layers will also extend drying times.

## TECHNICAL DATA

Bulk density of powder	1.3 kg/litre
Mixed Mortar density	2.0 kg/litre
Initial set (Vicat) DIN 1164	approx 45 mins
Final set (Vicat) DIN 1164	approx 60 mins
Packaging	20kg bag

### Compressive Strength MPa (ASTM C109)

After 1 days	approx 11
After 3 days	approx 25
After 7 days	approx 27
After 28 days	approx 37

### Flexural Strength MPa (ASTM C348)

After 1 days	approx 3
After 3 days	approx 4
After 7 days	approx 6
After 28 days	approx 8

## STORAGE

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

## HEALTH & SAFETY

ARDEX K 12 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 effected 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.

NOTE: 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 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 Standard, our instructions and 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.

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