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# ARDEX K 301

## Exterior Levelling and Smoothing Compound

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Quick drying – walkable after only 2 to 3 hours

Easy to install – 2mm to 20mm in one application

Versatile – can be hand mixed or pump applied

Suitable for interior and exterior applications

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## Exterior Levelling and Smoothing Compound

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### DESCRIPTION

ARDEX K 301 is a levelling and smoothing compound for repairing and resurfacing internal and external concrete floors and ARDEX A 38 screeds only. It can be used for filling, smoothing and levelling subfloors prior to coating, or installing tiles or other suitable floorcoverings. ARDEX K 301 can also be used as a wear surface in workshops, domestic garages, storage areas, light commercial areas, courtyards and footpaths.

### SUBSTRATES

ARDEX K 301 can be applied internally or externally, directly to dry or moist substrates provided they are set and hardened.

### SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminant. Mechanically clean 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 10°C. For further information, contact ARDEX technical services.

### CONDITIONS OF SUBFLOOR

ARDEX requires that the subfloor condition complies with the requirements of AS1884, but also that concrete surfaces have a compressive strength exceeding 20MPa and a tensile strength of greater than 1.5MPa. The surface must be sound and not crumbly or dusty after surface preparation. It is the responsibility of the flooring contractor and/or the site builder/specifier/architect to confirm that the subfloor(s) are suitable for installation of ARDEX floor smoothing products.

It is further the responsibility of the installer/architect/builder to determine whether any topping or unsatisfactory material overlies the concrete base. These factors might entail the testing of the subfloor by sample coring to check for layering, compressive strength sampling and testing, insitu tensile testing or other non-invasive remotely sense methods to determine thickness, density or soundness of existing concrete, toppings or screeds. ARDEX in general recommends the removal of pre-existing toppings and screeds unless their suitability CAN BE determined and documented.

### PRIMING

#### **Internal Applications:**

Prime with ARDEX P 51. Mix 1 part ARDEX P 51 with 1 part water and apply evenly using a broom. Do not use paint rollers, mops, or spray equipment. Do not leave any bare spots. Brush off all puddles or excess primer. Allow to dry a thin, clear film (min 3 hours, max 24 hours).

#### **External / Internal Wet Area Application:**

Prime with ARDEX WPM 300 and broadcast sand. Apply one coat of ARDEX WPM 300 by roller at 3m<sup>2</sup>/litre. Whilst ARDEX WPM 300 is still wet broadcast 0.5mm clean dry sand over the surface at ~700gms/m<sup>2</sup>. Cure overnight and broom and vacuum excess sand off. Apply smoothing cement.

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 litres of water to 20kg of ARDEX K 301 powder.

### 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 (650rpm). Normal mixing time of a 20kg bag is 2 to 3 minutes. Concrete mixers and hand mixing are not suitable methods of mixing. To 4 litres of water, add the ARDEX K 301 (20kg) whilst mixing thoroughly. Do not overwater.

## MANUAL INSTALLATION

Pour the mixed ARDEX K 301 onto the prepared subfloor. If subfloor has not been primed, apply material in a thin layer and work into the surface, then apply further material to the required thickness. Spread in place using the ARDEX stand-up spreader or ARDEX hand trowel. Use the ARDEX gauging tool with height adjustment to obtain an even thickness. Do not rework the ARDEX K 301 after 10 minutes working time. Wear football boots with rubber or nylon studs to avoid leaving marks in the liquid ARDEX K 301. If floor coverings are to be installed, ARDEX K 301 must be left for 24 hours. If the product is to be coated, it should be left for 2 days up to 5mm, 5 days up to 10mm and 7 days up to 20mm.

NOTE: Exterior installations must be protected from direct sunlight and draughts which could lead to accelerated drying of the surface.

## PUMPING INSTALLATION

For ease and efficiency of application in large areas, ARDEX K 301 can be pumped with a Levelcraft Automatic Mixing Pump. Contact ARDEX technical services for detailed information on pumping.

## POUR SIZES

Where areas of floor smoothing cement are to be poured onto large area sub-floors which have either no or few control or movement joints (for example hundreds to thousands of square metres), the maximum size of panel that can be poured shall not exceed 100sqm and no single dimension shall exceed 8m in length. For areas exceeding these dimensions control movement joints shall be installed in the topping system between adjacent pours such that these dimensions are not exceeded. These joints must be full topping thickness and be filled with a flexible sealant or metal joint strip. Further, existing sub-floor joints whether they correspond or not with the topping joints must also be carried through the topping.

## FLOOR JOINTS

All sub-floor joints subject to movement such as expansion and control joints shall be continued from the sub-floor through the floor smoothing cement system to the surface and be expressed. The expressed joint shall be filled with either a flexible sealing material or be of a proprietary type suitable for the final floor covering system.

## THICKNESS

ARDEX K 301 can be applied from 2mm – 20mm in one application.

## DRYING TIME

Allow approximately 2 to 3 hours at 20°C, before foot traffic. Conventionally laid carpet and floating floors can be installed after 24 hours. Direct stick applications and vinyl flooring after 48 hours. Higher temperatures will reduce the drying time, whilst lower temperatures will extend drying time.

## COVERAGE

Approximately 1.6kg powder/mm/m<sup>2</sup>. A 20kg bag will cover approximately 6m<sup>2</sup> at 2mm thickness.

## TECHNICAL DATA

Bulk density of powder	1.4kg/L
Weight of fresh mortar	1.9kg/L

### Compressive strength

After 1 day	8MPa
After 7 days	20MPa
After 28 days	30MPa

### Tensile bending strength

After 1 day	2MPa
After 7 days	4MPa
After 28 days	7MPa

## STORAGE

ARDEX K 301 has a shelf life of 12 months if stored in dry conditions in unopened packaging.

## HEALTH AND SAFETY

ARDEX K 301 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. Material Safety Data Sheets are available on request.

## 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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