

ARDEX K301

Exterior self-levelling mortar

Cement based

Flowable Cementitious Levelling and Repair Mortar -for repairing and levelling rough or damaged concrete

Suitable for internal and external applications onto concrete and bonded cement/sand screeds

For smoothing and resurfacing paths, drives, parking areas, courtyards, wet areas, etc.

Fast setting - walkable after 2-3 hours

Rapid hardening - can withstand light vehicular traffic after 48 hours

Easy to mix and apply – pumpable

Apply from 2 to 20mm thick in a single application

Can be sealed, painted or used with suitable resin coatings

Certified acc. EN 13813: CT C30-F7-A22



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Use:

Interior and exterior floors.

For filling, smoothing and levelling concrete and cement substrates, before being covered by ceramic or other coating.

To create wear surfaces in storage areas, workshops, light industrial areas, garages, driveways, patios, sport-centres and walkways.

For the subsequent laying of tiles or natural stone, sealers and coatings.

Description:

ARDEX K301 is a grey powder consisting of special cements, graded aggregates and high quality synthetic resins. When mixed with water, a fluid mortar is produced which sets after approximately 1 hour and can normally be walked on after 2-3 hours at $\pm 20^{\circ}$ C.

ARDEX K301 can be applied from 2mm to 20mm in a single application

Substrate preparation:

The substrate can be dry or damp (without standing water), however it must be firm, load bearing, free from dust and other release agents. Loose particles should be removed.

Remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying ADICEM SF. Overwatered or otherwise weak concrete surfaces must also be suitably prepared down to sound, solid concrete by mechanical methods.

Dust and other debris should be removed using vacuum equipment.

NOTE: Any joints or cracks in the concrete base where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface and suitably sealed.

The support should have a tensile strength greater than 1.5 $\mbox{N/mm}^2.$

Standard absorbent substrates must be primed with ARDEX P 51 diluted 1:1 with water. Apply evenly with a soft bristled push broom. For external applications prime with ARDEX P 51 diluted 1:7 with clean water and applied with a brush or broom.

Ponding, puddles, or surface primer must be removed with a broom so that excess water is not incorporated in the mortar during application.

n all areas subjected to regular rubber wheeled traffic or heavy loading, and on dense and non-porous substrates, is recommended to prime with a sand blinded application of ARDEX EP 2000 (see corresponding technical data sheet).

Application:

In a clean mixing container add the powder to the required amount of clean water whilst stirring thoroughly until a lump free mortar is produced.

Approximately 5 litres of water are needed to mix 25 kg of ARDEX K301. At $+18 - +20^{\circ}$ C the mortar workable for approx. 30 minutes. Lower temperatures lengthen the working time, higher temperatures shorten it.

ARDEX K301 can be applied in thicknesses from 2mm to 20mm. The mortar spreads easily. It can be applied with a long handled gauging tool with height adjustment for thickness or smoothing trowel

If levelling is required on a slope (max. 2%), reduce the water content.

Large areas:

In large areas ARDEX K301 can be pumped. To pump the mortar all suitable pumps such as auger, piston and continuously working pumps with a capacity from 20 to 40 litres of mortar per minute can be used. Lubricate the hoses with a mix of 1 bag of ARDEX K301 and 8 I of water. The use of cement slurry to lubricate the hoses is forbidden.

If the pumps are not in operation over 30 minutes the hose and all the pump must be thoroughly cleaned.

Apply ARDEX K301 at temperatures above +5°C and below +30 °C.

Once set, the freshly applied ARDEX K 301 must be protected from adverse climatic conditions e.g. rapid drying air flow, direct strong sunlight, frost, etc., or appropriate curing measures must be taken until hardened.

When in doubt, take a test.

Application in parking areas and light industry:

The minimum requirement for the substrate should be C30 - C50 or concrete B25 to B35.

In order to eliminate impurities, separating agents, loose elements or any other material that impairs adhesion, the support must be shot-blasted. Substrates thus prepared must be primed with ARDEX P51, diluted 1: 1 or 1: 3 with water. In special cases it may be necessary to prime the substrate with sand blinded ARDEX EP2000.

ARDEX K301 is suitable for C30 - C50 loads as determined for cement renderings without abrasive stress, in accordance with the AGI - A12 "Industrial Flooring" worksheet, part 1.

Recommendations:

To protect the surface against dirt, dust, abrasion, mineral oils, etc., and to more easily clean the areas, suitable coatings from the Ardex range should be applied.

To fill cavities, holes, irregularities, cracks, etc., we recommend the use of ARDEX A46 exterior filling compound.

If it is necessary to apply a second coat of ARDEX K301 over an existing fully dry coat, it must be sanded with a single disc machine and 36-grit discs, then it will be primed with ARDEX P51 as indicated in the Substrate Preparation section.

Warning:

Contains cement. Reacts alkaline. Irritates the skin. Irritates the eyes. Keep out of the reach of children. Avoid contact with eyes and skin. In the case of contact with the eyes, rinse thoroughly with water and consult a doctor if irritation persists. The contact lenses of the affected person should be removed if they are worn. Gloves and protective glasses should be worn during handling. In the set state, the product is physiologically and ecologically harmless.

Disposal of waste and empty containers must be done in accordance with current local / regional / national / international legislation.

GISCODE ZP 1 = contains cement, low chromate content.

For more information consult the current Safety Data Sheet.

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Technical data

(Based on tests carried out in out laboratory in accordance with Ardex quality standards)

quality standards)		
Mixing ratio:	Approx. 5 I. water: 25 Kg powder, equivalent to 1 vol. water: 3½ vol. powder.	
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Bulk density:	Approx. 1,4 Kg/l.	
Fresh mortar density:	Approx. 1,9 Kg/l.	
Consumption:	Approx. 1,6 kg of powder per m^2 and mm.	
Open time (+20°C):	Approx. 30-45 min.	
Walkability (+20°C):	Approx. 2-3 hours	
Overcoating (+20°C):	After mortar application Not sensitive to moisture: Approx. 1 day. Moisture sensitive: Up to 5 mm: 2 days. Up to 10 mm: 5 days. Up to 20 mm: 7 days.	
Compressive Strength:	After 1 day approx. 8 N/mm ² After 7 days approx. 20 N/mm ² After 28 days approx. 30 N/mm ²	
Flexural Strength:	After 1 day approx. 2 N/mm ² After 7 days approx. 4 N/mm ² After 28 days approx. 7 N/mm ²	
Adhesion:	After 3 days approx. 1,5 N/mm ² After 7 days approx. 1,7 N/mm ²	
pH:	Approx. 12 (fresh mortar)	
Frost resistant:	Yes	
Suitable for underfloor heating (water):	Yes	
Suitable for wheeled furniture:	Yes	
Packaging:	Bags of 25 kg.	
Storage and Shelf Life:	Approx. 12 months in dry locations and in the original closed packaging.	

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ARDEX GmbH Friedrich-Ebert-Str. 45 58453 Witten Germany 13			
53145 EN 13813:2002 ARDEX K301 Cementitious mortar for screeds for indoor-outdoor use			
EN 13813: CT-C30-F7-A22, polymer modified Reaction to fire:			

Emission of corrosive substances:	CT		
Water permeability:	NPD		
Water vapor permeability:	NPD 030		
Compressive strength:	C30		
Flexural strength:	F7		
Abrasion resistance (Böhme): Acoustic isolation:	A22 NPD		
	NPD NPD		
Sound absorption: Thermal resistance:	NPD NPD		
Chemical resistance:	NPD NPD		
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We assume the warranty for the perfect quality of our products. Our handling recommendations are based on trials and practical experience; they can, however, only be regarded as general advice without a quality warranty, as we have not influence on work site conditions and the execution of the work.

Country specific recommendations, depending on local standards, codes of practice, building regulations or industry guidelines, may effect specific installation recommendations.

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