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JANUARY 2023 (SUPERSEDES APRIL 2010) PRODUCT DATA SHEET

# **ARDEX K 15 HB** High Build, Rapid Drying Subfloor Smoothing Compound

### Features

- Apply from 5mm to 35mm in one operation
- Rapid hardening walkable in approximately 2 hours, even with thick applications
- Rapid drying dry within 24 hours, even with thick applications
- Ceramic floor tiles can be fixed after 4 hours
- Can be hand mixed or pump applied
- Strong high compressive strength
- Suitable for floors with underfloor heating



Binds the mix water within the mortar, speeding drying and hardening times irrespective of application thickness



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## **ARDEX K 15 HB** High Build, Rapid Drying Subfloor Smoothing Compound

#### DESCRIPTION

ARDEX K 15 HB is an advanced and versatile high build levelling compound designed for applications from 5mm up to a maximum of 35mm. It is virtually tension free and is designed to rapidly level uneven, hard subfloors. Used in conjunction with either ARDEX P 82, ARDEX P 51 or ARDEX P 4 primers, ARDEX K 15 HB can be applied to old subfloors, e.g. concrete and other hard and rigid bases. ARDEX K 15 HB is a grey powder consisting of special cements, graded aggregates and high quality synthetic resins. When mixed with water, a fluid, pumpable mortar is produced which can be applied to the required thickness in one operation.

For thicknesses greater than 20mm it is possible to incorporate ARDEX Coarse Aggregate in the mixed mortar, thus giving significant cost savings for greater application thicknesses.

When applied at 20°C ARDEX K 15 HB can normally be walked on after approximately 2 hours. The applied product dries and hardens rapidly so that even thick applications are ready to receive resilient floor finishes such as PVC within 24 hours. Ceramic floor tiles can be installed on top of ARDEX K 15 HB as soon as the surface of the ARDEX K 15 HB has attained sufficient strength and hardness, typically 4 hours after application at 20°C.

#### USE

ARDEX K 15 HB will level internal subfloors of concrete, cement/sand, etc.

Applications include levelling tamped, uneven, damaged or rained-on in-situ concrete subfloors, adjusting tolerances or camber problems between floors, slabs or pre-cast concrete as well as pre-levelling old subfloors and screeds in renovation projects. ARDEX K 15 HB is especially useful where the installation time of the floor finish must be kept to a minimum.

#### SUBSTRATE PREPARATION

The surface must be hard, sound and free of dust, dirt and other barrier materials such as paint, lime coatings, plaster and adhesive residues, etc. Use a suitable degreaser to remove polish, wax, grease, oil and similar contaminating substances. Laitance must be removed from concrete surfaces. Direct to earth subfloors must have an effective damp proof membrane (DPM). If the subfloor has a missing or ineffective DPM, consult the ARDEX DPM 1 C or ARDEX DPM 1 C R datasheet for advice or contact our Technical Support Team for further information.

#### ALL SURFACES MUST BE PRIMED.

ARDEX P 82 or ARDEX P 4 primer is recommended for use on smooth, non-absorbent subfloors, e.g. power floated concrete, smooth precast concrete. ARDEX P 51 primer should be used on porous or rough surfaces, e.g. cement and sand screeds, scabbled concrete, etc. See Priming and Preparation Leaflet for correct dilution rates. Do not use ARDEX K 15 HB on top of asphalt, consult the ARDITEX NA® or ARDEX FA 20 data sheets.

#### MIXING AND PLACING

To the required amount of clean water in a clean mixing container add the powder whilst stirring thoroughly until a lump free mortar is produced. The mixing proportions are:

4 to 4.25 litres of water per 25kg bag. Use the minimum amount of water for thick applications or cold conditions.

Apply at temperatures above 5°C. The use of an ARDEX mixing paddle with a 10mm chuck slow speed (600-1000 r.p.m.) electric drill makes light work of mixing. Mixed ARDEX K 15 HB should be applied within 30 minutes at 20°C. This time is extended at lower and reduced at higher temperatures.

**NOTE:** ARDEX K 15 HB may be pumped using suitable floor screed mixer pump units. For advice on pumping, including suitable equipment and techniques, please contact our Technical Support Team.

#### APPLICATION

Pour the mixed ARDEX K 15 HB onto the prepared subfloor and use a steel finishing trowel or ARDEX Pin Leveller to spread mortar and finish off. The mixed mortar will flow out and self-smooth within the first 15 minutes of its 30 minute working time.

**NOTE:** Depending upon the thickness of application, the addition of aggregate, finish achieved and intended use, a final smoothing layer may be required e.g. for the application of thin, resilient floorcoverings onto thin layers of ARDEX K 15 HB or where extra aggregate has been incorporated. This is unlikely to be necessary where coverings such as carpet, ceramic and natural stone tiles, wood blocks etc are being installed. Prior to applying the smoothing layer of ARDEX K 15 HB should be treated as a porous and absorbent subfloor.

#### APPLICATIONS OVER UNDERFLOOR HEATING

Heated screeds must be laid in accordance with BS 8204 Part 1 and BS EN 1264. The underfloor heating system should have been commissioned in accordance with the manufacturer's instruction manual and BS 8204 Part 1 and BS EN 1264 Part 4. Once commissioned, and thermally cycled, the underfloor heating system should be turned down to room temperature, but not below 15°C, before the installation of ARDEX K 15 HB and the floor covering. The underfloor heating system should then be gradually brought up to normal operating temperature to avoid rapid thermal shock and wide temperature variations.

#### THICKNESS

ARDEX K 15 HB should be applied at thicknesses greater than 7mm to benefit from its levelling properties. Where surface finish is not critical, for example when used as a base mix or below tiling, ARDEX K 15 HB may be applied down to a minimum of 5mm in thickness.

When applying ARDEX K 15 HB at thicknesses of over 20mm, ARDEX Coarse Aggregate may be incorporated. When applying ARDEX K 15 HB to dense, impervious surfaces e.g. quarry tiles, primed with ARDEX P 82 or ARDEX P 4 primer, the thickness should not exceed 10mm in depth. Thick layers above 10mm will require the use of ARDEX R 3 E sand blinded in accordance with its data sheet. Contact the ARDEX Technical Support Team for further information. **NOTE:** It is recommended that the floor covering or smoothing layer if required, is applied within 48 hours to avoid contamination of the floor, if not, the surface should be covered until the the floorcovering is laid or the surface smoothed.

#### COVERAGE

Approximately 1.8kg ARDEX K 15 HB powder/  $m^2$ /mm. e.g. one bag will cover approximately 2.7m<sup>2</sup> at 5mm thickness.

**NOTE:** The coverage figure is based on a flat level surface, additional material should be allowed for where the surface is rough or uneven.

#### PACKAGING

ARDEX K 15 HB is packed in paper sacks incorporating a polyethylene liner - net weight 25kg.

#### STORAGE AND SHELF LIFE

ARDEX K 15 HB must be stored in unopened packaging, clear of the ground in cool dry conditions and be protected from excessive draught. If stored correctly, as detailed above, the shelf life of this product is 12 months from the date shown on the packaging.

NOTE: For the latest technical or health and safety information on this product, consult the current technical or health and safety datasheet online at www.ardex.co.u

#### TYPICAL TECHNICAL DATA

After

28 days

Workin Flow I Initial	t of fresh mortar ng time at 20°C ife at 20°C Set (Vicat) Set (Vicat)	approx. approx. approx. approx. approx.	2.13kg/litre 30 minutes 15 minutes 30 minutes 2 hours	
Compressive Strength (DIN 1164)				
After	1 day	19.0 N/mm <sup>2</sup>		
After	7 days	27.0 N/mm <sup>2</sup>		
After	28 days	35.0 N/m	1m <sup>2</sup>	
Tensile Bending Strength (DIN 1164)				
After	1 day	4.5 N/mm <sup>2</sup>		
After	7 days	6.0 N/mm <sup>2</sup>		

NOTE: The information supplied in our literature or given by our employees is based upon extensive experience and, together with that supplied by our agents or distributors, is given in good faith in order to help you. Our Company policy is one of continuous Research and Development; we therefore reserve the right to update this information at any time without prior notice. We also guarantee the consistent high quality of our products; however, as we have no control over site conditions or the execution of the work, we accept no liability for any loss or damage which may arise as a result thereof.

8.0 N/mm<sup>2</sup>

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

TECHNICAL ADVICE HELPLINE 01440 714939 ARDEX online www.ardex.co.uk