CI/SfB
(43) Yq2

AUGUST 2006
PRODUCT DATA SHEET

ARDEX K 15

Self-Levelling Sub-Floor Smoothing Compound

Features

Rapid hardening - walkable in approximately 2 hours

Rapid drying - receives floorcoverings within 24 hours regardless of thickness

Can be applied by trowel or pump

Strong - high compressive strength

Suitable for floors with underfloor heating

Ideal for use with ARDEX floorcovering adhesives

Rapidry Formula

RAPIDRY FORMULA

What is the Rapidry Formula?

It is the ability of the mortar to totally bind the water used for mixing.

BSI REGISTERED UKAS QUALITY MANAGEMENT 003

Reg No. FM 1207

ARDEX UK LIMITED
Homefield Road, Haverhill, Suffolk CB9 8QP UK.
Telephone: +44 (0)1440 714939
Fax: +44 (0)1440 716660
Technical Services Fax: +44 (0)1440 716640
Email: technical.services@ardex.co.uk
ARDEX online: www.ardex.co.uk

ARDEX K 15

Self-Levelling Sub-Floor Smoothing Compound

DESCRIPTION
ARDEX K 15 is an advanced sub-floor smoothing compound. It is virtually tension free and is designed to rapidly level and smooth hard sub-floors prior to applying a floor finish. Used in conjunction with either ARDEX P 82 or ARDEX P 51 primers, ARDEX K 15 can be applied to old sub-floors, e.g. floor screeds and other hard and rigid bases.
ARDEX K 15 is a grey powder consisting of special cements and high quality synthetic resins.
When mixed with water, a fluid, self-levelling mortar is produced which can be applied from a feather edge up to the required thickness in one operation. For thicknesses greater than 10mm, incorporate ARDEX Aggregate in the mixed mortar. ARDEX K 15 can normally be walked on after approximately 2 hours at 20°C and dries and hardens rapidly so that even thick applications are ready to receive floorcoverings within one day at 20°C.

USE
ARDEX K 15 will level and smooth, in a single application, internal sub-floors of concrete, cement/sand screeds, quarry tiles, etc., prior to the installation of floorcoverings. Applications include smoothing tamped, uneven, damaged or rained-on in situ concrete sub-floors, adjusting tolerances or camber problems between floors, slabs or pre-cast concrete as well as smoothing old sub-floors and screeds in renovation projects. ARDEX K 15 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 excessive adhesive residues etc. Use ARDEX DGR degreaser to remove polish, wax, grease, oil and similar contaminating substances. Laitance should be removed from concrete surfaces. Direct to earth sub-floors must have an effective damp proof membrane, such as ARDEX DPM. Contact our Technical Services Department for further information.

ALL SURFACES MUST BE PRIMED.
ARDEX P 82 primer is recommended for use on smooth, non-absorbent sub-floors e.g. power floated concrete, smooth pre-cast concrete, asphalt and sound terrazzo, ceramic or quarry tile flooring. ARDEX P 82 primer should also be used on impervious sub-floors which have traces of sound adhesive residues. 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. Where porous and absorbent sub-floors, e.g. cement and sand screeds, have traces of sound adhesive residues use ARDEX P 51 primer diluted with an equal volume of water.

MIXING
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 by volume are approximately:- 3½ parts ARDEX K 15 powder into 1 part clean water 5-5½ litres of water per 22kg bag.
Use the minimum amount of water for thick applications or cold conditions.

The use of an ARDEX mixing paddle with a 10mm chuck slow speed (600 - 1,000 r.p.m.) electric drill makes light work of mixing. Mixed ARDEX K 15 should be applied within 30 minutes at 20°C. This time is extended at lower and reduced at higher temperatures.

APPLICATION
Pour the mixed ARDEX K 15 onto the prepared sub-floor. The mixed mortar will flow out and self-level above 3mm during the first 15 minutes of its 30 minutes working time. Use a suitable spreader to obtain the required thickness. A long handled ARDEX gauging tool with height adjustment for thickness will simplify this operation. A long handled ARDEX smoothing trowel can be used for finishing off.
A steel finishing float can be used for feather edging and touch up work. See the ARDEX tool catalogue for details. Apply at temperatures above 5°C.

THICKNESS
ARDEX K 15 should be applied at thicknesses greater than 3mm to benefit from its self-levelling properties.
NOTE: Non-absorbent sub-floors, e.g. flooring grade asphalt, must be levelled with at least 3mm of the smoothing compound.
NOTE: No more than 6mm of ARDEX K 15 should be used on top of asphalt.

When applying ARDEX K 15 at thicknesses of over 10mm, incorporate up to an equal volume of 3mm single sized chippings. For thicknesses exceeding 20mm up to 35mm, up to an equal volume of 3-8mm aggregate may be used.

Mix the ARDEX K 15 as above and add the aggregate without further addition of water.

For thicknesses greater than 7mm up to 35mm thick it is preferable, more convenient, as well as economical to use ARDEX K 15-B (Base coat) and subsequently apply a 3mm smoothing layer of ARDEX K 15.

NOTE: It is recommended that the floorcovering is applied within 48 hours, however, where the applied mortar is subjected to rapid drying conditions e.g. direct sunlight, through draughts or where the installation of the floorcovering is delayed for longer than 48 hours, the surface should be covered until the floorcovering is laid.

SPECIFIC APPLICATIONS
When applying ARDEX K 15 either over flooring grade asphalt, or over sub-floors with traces of sound, hard, non-water softenable adhesive residues, or where a floor paint or paint thickness coating is to be subsequently applied, ARDEX E 25 must be incorporated in the ARDEX K 15. Consult our Technical Services Department for advice on dilution and incorporation of the ARDEX E 25 mortar admix.

NOTE: That where a paint or paint thickness coating is subsequently applied, the paint or coating used should be checked for suitability and compatibility with ARDEX K 15/ARDEX E 25 before work commences.

Where large sub-floors require levelling with ARDEX K 15 it may be advantageous to use a pump to mix and place the ARDEX K 15 mortar. Consult our Technical Services Department for advice on this type of application.

COVERAGE
Approximately 1.5kg ARDEX K 15 powder/m^2/mm, e.g. one bag will cover approximately 5m^2 at 3mm 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 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg.

STORAGE AND SHELF LIFE
ARDEX K 15 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.

PRECAUTIONS
ARDEX K 15 is considered non-hazardous in normal usage. The presence of cement in the product gives an alkaline mortar which may cause some local irritation if prolonged contact with the skin takes place.
Care should be taken to avoid inhalation or ingestion of dust and prevent contact with the eyes.

For further information, consult the relevant health and safety data sheet.

TECHNICAL DATA

Bulk density of powder	approx. 1.1kg/litre
Weight of fresh mortar	approx. 1.9kg/litre
Working time at 20°C	approx. 30 minutes
Flow life at 20°C	approx. 15 minutes
Initial Set (Vicat)	approx. 30 minutes
Final Set (Vicat)	approx. 2 hours

Compressive Strength (DIN 1164)

After 1 day	18.5 N/mm^2
After 3 days	21.8 N/mm^2
After 7 days	24.8 N/mm^2
After 28 days	28.8 N/mm^2

Tensile Bending Strength (DIN 1164)

After 1 day	5.4 N/mm^2
After 3 days	5.8 N/mm^2
After 7 days	6.0 N/mm^2
After 28 days	7.0 N/mm^2

Ball Pressure Hardness (Brinell)

After 1 day	56.0 N/mm^2
After 3 days	68.0 N/mm^2
After 7 days	72.0 N/mm^2
After 28 days	73.0 N/mm^2

Suitable for underfloor heating	Yes