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PRODUCT DATA SHEET

ARDEX K 70

Protein Free Self-Smoothing Sub-Floor Levelling Compound

Features

Protein free

Rapid hardening - walkable in approximately 2 hours

Rapid drying - receives floorcoverings within 24 hours

Good workability

Can be applied by trowel or pump

Rapidry Formula

Use as a wearing surface in light duty areas

Apply from 3mm to 30mm in one operation

RAPIDRY FORMULA

What is the Rapidry Formula?

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

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ARDEX K 70

Protein Free Self-Smoothing Sub-Floor Levelling Compound

DESCRIPTION

ARDEX K 70 is a grey powder consisting of high quality redispersion powders, special cements and selected fillers. When mixed with water a grey, self-smoothing mortar is produced which sets within 2 hours at 20°C and hardens by hydration to a virtually tension free layer. The mortar bonds strongly to most construction materials, e.g. cement/sand screeds, concrete etc., to produce a smooth, flat, hard and even surface to receive floor finishes within 24 hours at 20°C. When applying ARDEX K 70 to absorbent and non-absorbent sub-floors the appropriate ARDEX primer should be selected. The mortar can be applied from 3mm to 30mm in thickness. A suitable 3mm single sized aggregate, e.g. ARDEX Aggregate may be included if required for thicknesses above 10mm.

USE

For levelling and smoothing cement/sand screeds and concrete sub-floors, etc., in a single application prior to installing floorcoverings or other types of floor finishes. Alternatively, use as a wearing surface in cellars, storage rooms, halls and workshops with low to moderate use. For heavy duty applications, consult the ARDEX SD-T data sheet. Ideal for levelling sub-floors in locations such as specialised laboratories where extraneous sources of protein could interfere with sophisticated biological/medical analytical techniques.

May be applied up to 10mm thick on hard flooring grade asphalt. The asphalt must have a sound sand blinded surface. For smooth asphalt the surface should be cleaned and degreased prior to priming with ARDEX P 82 primer.

NOTE: For internal use only.
Direct to ground sub-floors must be protected from rising damp.

SUBSTRATE PREPARATION

ARDEX K 70 can be applied to dry surfaces that are hard, sound and free of dust and other barrier materials. When wax, grease, polish, oil and similar contaminating substances are present, the surface must be cleaned, e.g. with ARDEX DGR degreaser. Paint, old adhesive residues, laitance, plaster residues, etc., must be removed. ARDEX P 51 primer should be applied to porous or rough absorbent surfaces, e.g. cement and sand screed, scabbled concrete, etc., as described in the Priming and Preparation leaflet.
Use ARDEX P 82 primer on smooth, dense, non-absorbent sub-floors, e.g. smooth power floated concrete, sound terrazzo, ceramic or quarry tile flooring.

NOTE: If the surface of the ARDEX K 70 will be used as a wearing surface, use ARDEX R 3 E Solvent Free Epoxy Primer blinded with aggregate as a primer on smooth and dense floors. Do not use ARDEX P 82 primer.
For application by pump contact our Technical Services Department for further information.

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:-
4 parts ARDEX K 70 powder into 1 part water. Approximately 4 1/4 - 4 1/2 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 variable speed electric drill makes light work of mixing.

APPLICATION

Apply the mixed ARDEX K 70 mortar onto the prepared sub-floor. The mortar will flow out and self-smooth during the first 15 minutes of its 30 minutes working time. ARDEX K 70 can be applied by conventional steel hand trowel or float. The mortar is workable for approximately 30 minutes at normal temperatures and walkable after 2 hours at 20°C. This time is extended at lower and reduced at higher temperatures. For pumped applications the use of the ARDEX long handled spreader and smoothing trowel will be advantageous. Apply a layer of at least 5mm of ARDEX K 70 to benefit from its self-smoothing properties and to provide a uniformly absorbent base for the flooring adhesive. The applied mortar, regardless of thickness, will be dry enough to receive floorcoverings within 24 hours at 20°C.

Apply at temperatures above 5°C.

THICKNESS

The standard mix of ARDEX K 70 is suitable for thicknesses up to 10mm in a single application. When applying ARDEX K 70 at thicknesses over 10mm incorporate up to an equal volume of 3mm ARDEX Aggregate. For thicknesses exceeding 20mm but not exceeding 30mm, incorporate an equal volume of 3-8mm aggregate. Mix the ARDEX K 70 with the recommended amount of water and add the aggregate without further addition of water.

NOTE: 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 to provide a temporary protection.

WEAR SURFACES

The surface of the ARDEX K 70 should be protected from spillages such as oil, salts, water etc., by applying a suitable concrete sealer, consult the relevant product data sheet for further information. Suitable sealers will also help ease maintenance and help to maintain the aesthetic appearance.

NOTE: As the performance of sealers varies considerably, if compatibility is unknown, a trial application is recommended to assess the suitability and compatibility of the selected sealer with ARDEX K 70 before work commences.

Always contact and rely upon the concrete sealer manufacturer for specific application instructions and product guidelines.

COVERAGE

Approximately 1.7kg ARDEX K 70 powder/m²/mm, e.g. approximately 2.6m² at 5mm thickness per 22kg bag.

PACKAGING

ARDEX K 70 is packed in paper sacks incorporating a polyethylene liner - net weight 22kg.

STORAGE AND SHELF LIFE

ARDEX K 70 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 70 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.	1.3kg/litre
Weight of fresh mortar	approx.	2.0kg/litre
Working time at 20°C	approx.	30 minutes
Flow life at 20°C	approx.	15 minutes
Initial Set (Vicat)	approx.	45 minutes
Final Set (Vicat)	approx.	1 1/2 hours

Compressive Strength

After 1 day	approx.	13.0 N/mm²
After 7 days	approx.	20.0 N/mm²
After 28 days	approx.	27.0 N/mm²

Tensile Bending Strength

After 1 day	approx.	4.0 N/mm²
After 7 days	approx.	6.0 N/mm²
After 28 days	approx.	7.0 N/mm²

Ball Pressure Hardness (Brinell)

After 1 day	approx.	50.0 N/mm²
After 7 days	approx.	60.0 N/mm²
After 28 days	approx.	70.0 N/mm²