CI/SfB
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January 2024
(SUPERSEDES December 2014)
PRODUCT DATA SHEET

ARDEX K 39

Heavy duty, high flow levelling and smoothing compound

Features

- Excellent Flow - Market Leading Workability
- Extended working time of 40 minutes
- Superior flow and finish, with minimum effort
- Eliminates trowel marks
- Walkable in 2 hours
- Spike rolling not always necessary
- Excellent coverage – 7.4m^2 at 2mm thick

bsi ISO 9001 Quality Management Systems CERTIFIED ISO 14001 Environmental Management CERTIFIED ISO 45001 Occupational Health and Safety Management CERTIFIED
Reg No. FM 01207 EMS 565427 OHS 628374

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ARDEX K 39

Heavy duty, high flow levelling and smoothing compound

DESCRIPTION
ARDEX K 39 is an advanced high performance self-smoothing and levelling compound with a market leading extended wet edge and working time. The rapid hardening properties of ARDEX K 39 mean that it is walkable in as little as 2 hours.

USE
ARDEX K 39 will level and smooth, in a single application, all uneven internal sub-floors including concrete, cement/sand screeds, anhydrite screeds etc.

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 ARDEX DGR to remove polish, wax, grease, oil and similar contaminating substances. Laitance should be mechanically removed from concrete surfaces. In all cases where traces of adhesive residues are present these must be sound, well adhered and unaffected by water.

DAMP PROOF MEMBRANES
Direct to earth sub-floors must have an effective damp proof membrane. If the DPM is absent or damaged, or the substrate is damp consult the ARDEX DPM 1 C, or ARDEX DPM1CR datasheet for further information.

PRIMING
All surfaces must be primed.
ARDEX P 51 Primer should be used on porous or rough surfaces, e.g. cement/sand screeds, mechanically prepared concrete, anhydrite screeds etc.
Please consult the ARDEX P 51 datasheet for correct dilution rates.

ARDEX P 4 Primer and ARDEX P 82 Primer are both recommended for use on ARDEX DPMs for smoothing applications of between 3mm to 6mm in thickness, and on non-absorbent sub-floors when ARDEX K 39 is applied up to 10mm in depth e.g. power floated concrete, smooth pre-cast concrete and sound terrazzo, porcelain/ceramic/quarry tiles or natural stone. For thicknesses that exceed the above recommendations use ARDEX R 3 E blinded with ARDEX Fine Aggregate as the primer coat.

When applying over flooring grade asphalt, the surface must be sound, cleaned with a suitable neutral cleaner, primed with ARDEX P 82 Primer and applied between 3-5mm thick.

MIXING
Use up to 5.5 litres of water per 22kg bag. Add the powder to the required amount of clean water in a clean mixing container whilst stirring thoroughly until a lump free mortar is produced. The use of an ARDEX mixing paddle with a 10mm chuck slow speed (600-1000 rpm) electric drill makes light work of mixing. The mixed ARDEX K 39 should be applied within 40 minutes at 20°C. This time is extended at lower temperatures and reduced at higher temperatures.

APPLICATION
Pour the mixed ARDEX K 39 mortar onto the prepared sub-floor and use a steel finishing trowel or float to spread the mortar and finish off. The mixed mortar will flow out and self smooth within its 40 minute working time.

For the first 25 minutes of the 40 minute working time ARDEX K 39 will retain a workable wet edge.

Due to the extended wet edge properties of ARDEX K 39, fresh applications of material can be easily smoothed/trowelled into existing pre-applied material for up to 40 minutes after application.

The superior smoothing and levelling properties of ARDEX K 39 help to ensure the best possible finish with minimum effort. Spike rollers may be used if preferred but their use is not essential as an excellent finish is normally achieved with a trowel or a gauging tool depending on the depth of the application.

Where levelling large surface areas it may be advantageous to pump ARDEX K 39.
NOTE: It is recommended that the floorcovering is applied within 48 hours to avoid contamination of the floor, if not, the surface should be covered until the floorcovering is laid.

APPLICATIONS OVER UNDERFLOOR HEATING
The sub floor should have been laid in accordance with BS 8204 Part 1.
The underfloor heating system should have been commissioned in accordance with the manufacturer's instructions and in accordance with BS 8204 Part 1.

Once thermally cycled and commissioned the underfloor heating system should be turned down to 15°C before the installation of the ARDEX K 39, smoothing compound and final floor covering.

The underfloor heating system should then be gradually re-commissioned to avoid rapid thermal shock and temperature variation.

THICKNESS
ARDEX K 39 can be applied from 1.5mm up to a maximum of 10mm in a single application. To utilise its free-flowing properties the minimum application thickness should be at least 2mm. A minimum thickness of 3mm should be applied on a non-absorbent sub-floor where an absorbent layer is required by the flooring adhesive.

When applying ARDEX K 39 at thicknesses over 10mm, incorporate up to half a volume of ARDEX Coarse Aggregate. Mix the ARDEX K 39 as above without further addition of water. Mixes with aggregate may require a subsequent smoothing layer of ARDEX K 39.

DRYING AND HARDENING
A 5mm layer of ARDEX K 39 is walkable after 2 hours and ready to receive floorcoverings After 24 hours at 20°C. Layers up to 10mm are dry after 48 hours. Applications from 10-20mm require approximately 72 hours too dry, depending on site conditions.
Where the applied mortar is subjected to rapid drying conditions, or where the installation of the floorcovering is delayed for longer than 48 hours, the surface should be covered to provide temporary protection against surface damage and contamination.

COVERAGE
Approximately 1.5kg ARDEX K 39 powder/ m^2/mm, e.g. one 22kg bag will cover approximately 7.4m^2 at 2mm thickness and 5m^2 at 3mm thickness.

NOTE: The coverage figure is based on a flat level surface. Additional material may be required where the surface is rough or uneven.

PACKAGING
ARDEX K 39 is packed in paper sacks incorporating a polyethylene liner -net weight 22kg.

STORAGE AND SHELF LIFE
ARDEX K 39 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 39 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.	1.2kg/litre
Weight of fresh mortar approx.	1.9kg/litre
Working time at 20°C approx.	40 minutes
Flow life at 20°C approx.	25 minutes

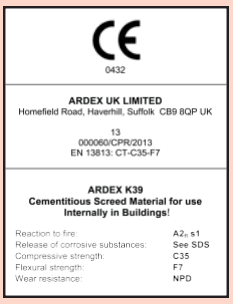
Compressive Strength:

After 1 day	6.0 N/mm^2
After 7 days	22.0 N/mm^2
After 28 days	29.0 N/mm^2

Tensile Bending Strength:

After 1 day	2.0 N/mm^2
After 7 days	5.0 N/mm^2
After 28 days	8.0 N/mm^2

EMICODE: (very low emission)	EC1+R
Suitable for under floor heating	Yes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EN 13813: CT-C35-F7
ARDEX K39
Cementitious Screed Material for use Internally in Buildings!
Reaction to fire: $A2_{fl}$ s1
Release of corrosive substances: See SDS
Compressive strength: C35
Flexural strength: F7
Wear resistance: NPD

TECHNICAL ADVICE HELPLINE
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