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PRODUCT DATA SHEET

ARDEX DPM 1 C

One Coat Damp Proof Membrane and Residual Moisture Suppressant

Features

- Protects the final floorcovering from residual construction moisture and rising damp
- Can be applied where a structural damp proof membrane is not present or is ineffective
- Suitable for use on surfaces with the highest measurable levels of moisture content (up to 98% RH)
- Suitable for use on Anhydrite/Calcium Sulphate based screeds
- Adheres to saturated concrete even at lower temperatures
- Can receive ARDEX Smoothing and Levelling Compounds in as little as 6 hours
- Suitable for use on cement/sand screeds containing water based under floor heating systems
- Apply ARDITEX NA direct without priming



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EMS 565427

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ARDEX DPM 1 C

One Coat Damp Proof Membrane and Residual Moisture Suppressant

DESCRIPTION

ARDEX DPM 1 C is a one coat solvent free, low viscosity, two component epoxy resin. After hardening, ARDEX DPM 1 C produces a membrane which can accommodate hygrometer readings up to 98% with high inherent bond strength. ARDEX DPM 1 C has excellent resistance to water, grease, oil, aqueous salt solution and dilute mineral and organic acids.

USE

ARDEX DPM 1 C has been specifically developed to provide either a damp proof membrane, or to suppress residual moisture in concrete slabs and cement/sand screeds which are well compacted and sound, where readings of up to 98% RH are measured. ARDEX DPM 1 C can be used as a damp proof membrane that deals with damp concrete where a structural damp proof membrane is not present or is ineffective, with the risk of ground bearing moisture. A thinner application may be used to suppress residual moisture in concrete slabs and cement/sand screeds which are well compacted and sound, where readings of up to 92% RH are measured. See table opposite for details.

ARDEX DPM 1 C is suitable for use on Calcium Sulphate screeds up to 90% RH, subject to the criteria below.

ARDEX DPM 1 C is suitable for heated concrete and cement/sand screeds. The surface temperature should not exceed 27°C in accordance with BS 8203 and BS 5325. See below.

MOISTURE TESTING

Moisture testing should be undertaken in accordance with BS 8203.

SUBSTRATE PREPARATION

Prior to application the concrete or screed substrate must be hard, sound and free of dust, laitance, dirt and other barrier materials such as paint, lime coatings, plaster and adhesive residues. Any existing screeds or levelling and smoothing compounds not resistant to moisture must also be removed. Concrete curing agents, admixtures and surface hardeners, and the residues of these products can impair adhesion and must be removed.

Contaminated and very smooth substrates must be prepared using appropriate, mechanised surface preparation equipment, prior to applying the recommended ARDEX products. Then completely remove any dust and fines by the use of brushing combined with effective industrial vacuum extraction equipment. The mechanical preparation is required to a suitable depth that exposes aggregate and a sound hard surface ready to receive treatment.

Very uneven, roughly textured or porous surfaces will reduce the coverage of the ARDEX DPM 1 C so pre-smoothing with ARDITEX NA is recommended.

CALCIUM SULPHATE BASED SCREEDS

For calcium sulphate screeds that are measured >75%RH by the flooring contractor, ARDEX DPM 1 C may be used if;

1. The screed manufacturer agrees that their screed can receive an epoxy DPM.
2. The subfloor contains an effective damp proof membrane, and that any moisture remaining is from the construction process and not from rising moisture from the ground.
3. The screed has been down for >28 days and has a surface tensile strength of at least 1.0 N/mm² for smoothing applications up to 6mm thick.
4. The moisture content measured is <1.5% w/w moisture, or <90% RH.
5. There is no underfloor heating in place.
6. No timber flooring is to be bonded to it.

In the case that these criteria are met, apply ARDEX DPM 1 C at minimum 350 microns to the prepared substrate. Smooth with 3mm-6mm ARDITEX NA, which must be applied within 48 hours of the application of the ARDEX DPM 1 C.

MOVEMENT JOINTS

Any joints or cracks in the floor subject to movement, such as structural movement joints, must not be bridged with the ARDEX DPM 1 C. These joints must be treated with a flexible impervious jointing system and be carried through to the floor finish before a damp proof membrane is applied. Where non-moving cracks are present in the screed these should be fully stitched and filled with an appropriate resin system before a damp proof membrane is applied. Consult the ARDEX P 10 SR datasheet for further information.

APPLICATIONS OVER UNDERFLOOR HEATING

The cementitious levelling screed 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 instruction manual and in accordance with BS 8204 Part 1.

Once thermally cycled and commissioned the underfloor heating system should be turned off for 48 hours prior to, and 48 hours after, the installation of the ARDEX DPM 1 C, smoothing compound and final floor covering. The underfloor heating system should then be gradually re-commissioned to avoid rapid thermal shock and temperature variation.

MIXING

In their original containers the resin and hardening agents are pre-gauged to the correct mixing ratio. The hardening agent (Component B) is added to the resin (Component A) and thoroughly mixed together with a spiral mixing paddle in a slow speed drill until a uniform colour and consistency is achieved.

It is important that all the resin components have been mixed thoroughly. In order to reduce unmixed residues, pour a proportion of the mixed material into the Component B container. Mix for 30 seconds then reintroduce this material back into the main mix in the Component A container and continue to mix.

ARDEX DPM 1 C is ready for immediate use and has a working time of 20 minutes at 20°C. This is reduced at higher temperatures and extended at lower temperatures. At higher temperatures it is recommended that ARDEX DPM 1 C is spread out immediately after mixing, as the reaction is exothermic and the heat generated in the container will reduce the working time. Apply at temperatures above 10°C.

NOTE: Back mixing ensures that no unreacted material is present and that the packaging can be safely disposed of as non-hazardous waste.

APPLICATION

Apply an even coat of the mixed ARDEX DPM 1 C with a suitable V shaped notched trowel over the appropriate area, see table below. Whilst the ARDEX DPM 1 C is still wet, the serration ridges should be flattened out with a long handled short pile paint roller, initially pre-wetted with the mixed ARDEX DPM 1 C.

Evenly spread the mixed unit over one of the following approximate areas, dependent on the surface texture and thickness required:

% RH (Max Relative Humidity Measured)	Minimum Film Thickness Required	6kg unit coverage (m ²)	10kg unit coverage (m ²)	25kg unit coverage (m ²)	Trowel at approx 60° angle
85	250 microns	15	25	62.5	A2 (1.5 x 5mm)
92	300 microns	12.6	21	52.5	B1 (6 x 2mm)
98*	350 microns	10.8	18	45	B2 (6 x 3mm)

*or where no damp proof membrane is present or is ineffective.

The applied film thickness can be checked with wet film thickness gauge. It is essential that the applied ARDEX DPM 1 C is a continuous film and free from pinholes, cavities or thin patches, which can occur on porous screeds for example, in this case an additional application, may be necessary.

PACKAGING

6kg, 10kg and 25kg units of ARDEX DPM 1 C are supplied in pre-gauged metal duo containers. The hardener (Component B) is in the small container and the resin (Component A) is in the large container with room to mix in the hardener (Component B).

STORAGE

Store in dry conditions. ARDEX DPM 1 C has a storage life of not less than 12 months in the original unopened containers.

CLEANING TOOLS

All tools should be cleaned before the ARDEX DPM 1 C cures.

SMOOTHING AND LEVELLING

When wood flooring is to be adhered, first prime the cured ARDEX DPM 1 C with ARDEX R 3 E Epoxy Primer, blind the surface with ARDEX Fine Aggregate and allow to cure. Vacuum off the excess fine aggregate to leave a 'sandpaper' finish. Apply the relevant latex or water based smoothing compound in accordance with the relevant data sheets.

Latex based smoothing compounds

ARDITEX NA (min. 3mm, max. 6mm) – apply to tack dry ARDEX DPM 1 C (typically after a minimum of 6 hours at 20°C) and within 48 hours of the cured coat of ARDEX DPM 1 C. If the timescale exceeds 48 hours then prime with ARDEX P 82(maximum time limit).

ARDITEX CL (min. 3mm, max. 6mm) - the surface of the ARDEX DPM 1 C must be primed with either ARDEX P 4 from 6-36 hours or ARDEX P 82 from 36 hours onwards.

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Water based levelling & smoothing compounds (ARDEX K 11 ARDEX K 15, ARDEX A 55, ARDEX K 39)

Prime the cured ARDEX DPM 1 C with ARDEX P 82. Alternatively ARDEX P 4 primer may be used if the damp proof membrane is than less than 36 hours old. Apply the primer in accordance with the relevant datasheet, and allow to dry. Apply the required ARDEX levelling compound to a minimum of 3mm, maximum 6mm and allow to dry.

ARDEX K 80/SD-T B Base Mix or thicker applications of underlayments (>6mm thick)

Prime the cured ARDEX DPM 1 C with ARDEX R 3 E Epoxy Primer, fully blind the surface with ARDEX FINE AGGREGATE and allow to cure. Vacuum off the excess fine aggregate to leave a 'sandpaper' finish. Apply ARDEX K 80/SD-T B Base Mix in accordance with the relevant data sheets.

Note: If applying any ARDEX Smoothing Compound greater than 6mm, you must prime with ARDEX R 3 E fully sand blinded with ARDEX Fine Aggregate.

Note: Minimum overcoat times are indicative only and will be effected by the ambient conditions. Ensure that the surface of the ARDEX DPM is hard and dry before walking on or applying a primer or smoothing compound.

PRECAUTIONS

ARDEX DPM 1 C can be irritating to the eyes, respiratory system and skin, and may cause sensitisation by contact. Consult the relevant health and safety data sheets for full information. In case of accidents seek medical advice.

TECHNICAL DATA

Density at 20°C:	1.54
Working Time:	20 minutes at 20°C
Over Coating if required:	6-8 hours at 20°C
Walkability at 20°C:	After 6 hours
Colour:	Black

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

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.

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

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