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# ARDEX A 45

## Rapid Hardening & Drying Internal Repair Mortar

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Rapid Hardening & Drying – Ready to Receive Floor Finishes after 1½ Hours

Slump Free – Ideal for Vertical & Horizontal Repairs

Rapid Repair of Internal Concrete Sub-Floors and Concrete Stairs

Fills Holes and Cracks in Renders, Screeds, etc.

ARDEX ARDURAPID Rapidry Formula



“Totally binds the mixing water”



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## Rapid Hardening & Drying Internal Repair Mortar

### WHAT IS ARDEX ARDURAPID RAPIDRY ?

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

This unique ARDEX property allows for:

The fast installation of subsequent layers such as self levelling compounds;

The fast-track installation of impervious floor coverings (eg: vinyl) and moisture sensitive floor coatings/coverings (eg: polyurethane, solvent-free epoxy, direct stick timber);

As well as providing high early strength and low shrinkage.

### DESCRIPTION

ARDEX A45 is a rapid setting and drying, slump-free mortar for internal repairs. The mortar dries and hardens rapidly to give a repair of exceptional strength and hardness. The mixed mortar sets after approximately 15 minutes and can be trafficked after 1½ Hours at 20° C.

### AREAS OF APPLICATION

ARDEX A45 is ideal for:- repairing and refracting internal concrete stair treads and risers, cement/sand screeds, concrete floors etc; filling and patching cracks, etc, in walls ceilings, soffits etc; making good around door and window frames, around pipe work etc; forming ramps from feather edge to normal screed thicknesses; forming coves etc, prior to applying in-situ resin floorings.

A suitable covering/coating is required if used as a wear surface.

### SUBSTRATE PREPARATION

ARDEX A45 can be applied to dry or moist screeds provided they are hardened & set and the surface is sound and free of dust, grease, oil and other surface contamination. Worn or trafficked surfaces should be abraded (diamond grinder, scarifier, shot-blast, angle grinder, wire brush) to remove contamination and roughen concrete to expose a clean porous surface to ensure good adhesion.

Priming is not usually necessary on porous surfaces such as concrete, cement/sand screeds, brickwork etc, unless the surface is extremely porous.

Direct to earth sub-floors must contain an effective damp-proof membrane (DPM). If not, use WPM300.

High Strength/Dense/Non-Porous Substrates. Use a solvent-free (DPE101) or water-based (WPM300) epoxy primer and blind with sand (~ 0.5 - 1.5mm). Allow each primer to cure to a hard film (24 hours) before proceeding. Once cured, sweep the surface with a stiff bristled push broom and then thoroughly vacuum to remove all loose sand before application of ARDEX A45.

### MIXING RATIO

Approx. 5.75L of water to 25kg ARDEX A45.  
Approx. 1 part water to 3 parts powder by volume.

### MIXING

The ARDEX A45 powder is added to the required amount of water in a clean mixing container and mixed thoroughly to obtain

a lump-free and slump-resistant mortar.

Avoid using too much water. The mixed mortar has a working time of 10 to 15 minutes at 20° C, this time being extended at lower, and reduced at higher temperatures.

For thicknesses over 10mm, but not exceeding 30mm, the ARDEX A45 mortar can be bulked out with 1/3 volume of sharp sand (0-5mm grading), or up to an equal volume of 3mm single sized aggregate. For localized thicknesses exceeding 20mm, e.g. filling deep holes and cracks, incorporate up to an equal volume of 10mm single sized coarse aggregate in the ARDEX A45 mortar.

### INSTALLATION

#### Repairs:

Apply the mortar with a trowel to holes, cracks and damaged areas, ensuring that the mortar "wets" the surface by trowelling in firmly, leaving the repair proud. After about 15 minutes trim off excess and finish off with a wet trowel, sponge or sponge float to obtain a smooth surface. As soon as the repair has hardened, the surface of the floor, stair tread etc, can be levelled, if necessary with ARDEX floor levelling cement.

#### Smoothing and Refacing:

Apply the mixed mortar with a trowel to the required thickness taking into account the short working time.

The material may be finished with a wet trowel after 15 - 20 minutes to provide a finish suitable for direct application of floor coverings. High aggregate content mixes may require a second application of "neat" ARDEX A45.

Apply at temperatures above 5° C.

### COVERAGE

A 25kg bag of ARDEX A45 will cover approximately 15m<sup>2</sup> at 1mm thickness.

### PACKAGING

25kg multi-layer paper bags incorporating a poly liner.

### STORAGE & SHELF LIFE

ARDEX A45 has a shelf life of approximately 6 months if stored in dry conditions in the original un-opened packaging.

### TECHNICAL DATA

#### General

Packaging: 25kg  
Coverage: 15m<sup>2</sup> @ 1mm  
Shelf-Life: 6 months

#### In Accordance with ARDEX Quality Standards

Powder  
Mixing Ratio: 5.75L Water to 25kg Powder  
Bulk Density of Powder: approx. 1.4kg/L  
Consumption: approx. 1.6kg powder/mm<sup>2</sup>

#### Wet-Fresh-Mixed Mortar

Application Temperature: 5° C - 35° C  
Mixed Mortar Density: approx. 2.0kg/L  
Initial Set (Vicat) approx. 10-15 minutes at 23° C  
Final Set (Vicat) approx. 20-30 minutes at 23° C

#### Cured Mortar

#### Compressive Strength:

After 1 day (23° C) > 15 MPa  
After 1 day (5° C) approx. 15 MPa  
After 28 days approx. 28 MPa

#### Flexural Strength:

After 1 day (23° C) > 4 MPa  
After 1 day (5° C) approx. 4 MPa  
After 28 days approx. 5.5 MPa

Shrinkage: < ± 0.1%

### HEALTH & SAFETY

ARDEX A45 is considered non-hazardous in normal usage, however it contains Portland cement & quartz sand and reacts alkaline which may cause some skin irritation after prolonged contact. Avoid generation and breathing of dust. Avoid contact with eyes or skin. Wear suitable protective dust mask, gloves and safety glasses. In case of contact with eyes, rinse for several minutes under running water. In case of contact with skin, rinse with running water. If dust is inhaled, remove to fresh air, ensure breathing passages are clear and rinse mouth with water. In the case of adverse symptoms, seek medical advice.

Physiologically and ecologically safe when in the cured state.

For further information, please consult the Material Safety Data Sheet (MSDS).

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. Regional specific recommendations, standards, codes of practice, building regulations or industry guidelines may affect specific installation recommendations.