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PRODUCT DATA SHEET

# ARDEX E 100

## Additive to Improve Screeding, Rendering and Repair Mortars, and for Bonding/Slurry Grouts

### Features

- Improves the elasticity and the compressive and tensile strengths of the modified mortar
- Improves the workability and plastic properties of the mortar without increasing the water content.
- Allows bonded cement and sand screeds to be applied at as little as 15mm thickness
- Reduces early age crack formation and surface dusting of screeds, whilst increasing their abrasion resistance
- Use with ARDEX A 38 Screeding Cement as a bonding slurry/grout
- For internal and external use



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# ARDEX E 100

## Additive to Improve Screeding, Rendering and Repair Mortars, and for Bonding/Slurry Grouts

### DESCRIPTION

ARDEX E 100 is an acrylic-based dispersion for use in screeding and rendering mortars in internal and external locations. The addition of ARDEX E 100 improves the compressive and tensile strengths, and elasticity and bond strength of the modified mortar. The workability and plastic properties of the mortar are improved without increasing the water/cement ratio, and early age crack formation is significantly reduced.

ARDEX E 100 is also designed for use in the bonding slurry/grout mortar mixture for ARDEX A38 Rapid Hardening and Drying Cement for Floor Screeds.

### USE

ARDEX E 100 is used in bonding grouts or slurry coats, for the adhesion of bonded screeds in mortars based on ordinary Portland cements, masonry cements, cement/lime and bonded renders, to cementitious backgrounds.

ARDEX E 100 can also be used as an additive to:

- Improve workability without increasing the water content of mortars.
- Increase the compressive and tensile bending strengths of the hardened mortars.
- Improve the elasticity and reduce crack formation in mortars.
- Reduce surface dusting of screeds and renders while increasing their abrasion resistance.
- Enable the minimum thickness of the modified bonded Portland cement floor screed to be reduced to 15mm from the recommended 25mm minimum thickness for unmodified screed mortars.

### PREPARATION

Ensure that all substrates are free of dust, loosely adhered materials, lime bloom/efflorescence, surface curing agents and mould oil/release agents. Any required mechanical preparation of the background surface should be carried out as described in the relevant British Standard Code of Practice such as BS 8204-1.

**NOTE:** the requirements for the drying of concrete backgrounds prior to the application of finishes to ensure that most of the concrete drying shrinkage has occurred.

### MIXING

For application in cement and sand mortars for screeding and rendering, the cement and sand should be mixed together and the required amount of ARDEX E 100 added (see table below) with the necessary additional water, to achieve the required mortar consistency.

For application of a bonding slurry/grout for screeds and renders, dilute ARDEX E 100 with an equal volume of water and use the diluted ARDEX E 100 to produce a bonding slurry by adding the cement/sand or cement whilst stirring until a lump free, creamy bonding slurry of a brushable consistency is obtained (see table below).

### APPLICATION

When the cement and sand mortar is modified with the addition of ARDEX E 100, this should be applied in the normal way onto a prepared substrate with the bonding slurry/grout.

Apply the bonding slurry with a stiff broom or similar, to the substrate, spreading it out evenly with adequate coverage. The render or screed mortar should be applied into the bonding slurry whilst it is still fresh, wet and workable. On smooth, vertical surfaces such as dense concrete, key the coat with a comb and allow to set and dry to form a bonding key for the subsequently applied render mortar.

### TECHNICAL DATA

#### Adhesion to Background

Cement slurries improved with ARDEX E 100 applied onto a clean, laitance free concrete surface will have a tensile adhesion strength in excess of 2.5N/mm<sup>2</sup> after 28 days.

#### ADDITION RATES

See table below.

#### PACKAGING

ARDEX E 100 is packed in polyethylene containers net weight 5kg.

#### STORAGE AND SHELF LIFE

ARDEX E 100 has a storage life of not less than 12 months in unopened containers. Protect from frost and direct sunlight.

#### PRECAUTIONS

Aqueous synthetic based dispersion.

Wash off from skin before drying takes place. Any material splashed into the eye, mouth or nose should be washed away immediately with clean water. Avoid ingestion.

Non-toxic and small amounts are unlikely to cause more than temporary discomfort. If large amounts are swallowed a doctor or hospital must be contacted at once.

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

**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.

#### TECHNICAL ADVICE HELPLINE:

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ARDEX online: [www.ardex.co.uk](http://www.ardex.co.uk)

MORTAR TYPE	SAND/AGGREGATE GRADING	CEMENT : SAND AND AGGREGATE BY WEIGHT	DILUTION OR ADDITION RATE OF ARDEX E 100
Cement Grout/Bonding Slurry for ARDEX Screeds	0-8mm Coarse Screeding Sand	ARDEX Screeding Cement: Sand 1:1 by Weight	1:1
Bonding Coat for Renders	BS EN 13139 : 2002 PD 6682-3 : 2003 Annex B1	1:1 or cement only	1:1
Mortars for Renders from 5mm to 16mm thick	BS EN 13139 : 2002 PD 6682-3 : 2003 Annex B1	1:3 to 1:4½	3kg ARDEX E 100 per 25kg Portland Cements
Mortars for Screeds	BS 8204-1 : 2002 Annex B2	1:4 to 1:5	3kg ARDEX E 100 per 25kg Portland Cements

**NOTES:** Fine aggregate for cementitious levelling screeds should conform to BS EN 13139. The preferred grading would be a 0/4 with a fines category 1 within the range MP, and ideally have a grading between 20% to 66% passing the 0.5 sieve