



CI/SfB

Yu2

MARCH 2012  
(SUPERSEDES AUGUST 2006)  
PRODUCT DATA SHEET

# ARDEX E 90

## Mortar Admix for use with ARDEX Cement-Based Adhesives

### Features

- For use with ARDEX X 7 G, X 7 W, S 16, S 16 W and S 21 cement-based tile adhesives
- Improves adhesion when fixing fully vitrified tiles, porcelain and mosaics etc.
- Improves flexibility
- For internal or external use
- Eliminates the need to prime when fixing onto existing glazed surfaces
- For use when tiling to heated subfloors



Reg No. FM 01207

EMS 565427

OHS 628374

ARDEX UK LIMITED  
Homefield Road, Haverhill, Suffolk CB9 8QP UK.  
Telephone: +44 (0)1440 714939  
Fax: +44 (0)1440 716640  
Email: [technical\\_admin@ardex.co.uk](mailto:technical_admin@ardex.co.uk)  
ARDEX online: [www.ardex.co.uk](http://www.ardex.co.uk)

# ARDEX E 90

## Mortar Admix for use with ARDEX Cement-Based Adhesives

### DESCRIPTION

ARDEX E 90 is a special synthetic dispersion for use with ARDEX X 7 G, ARDEX X 7 W, ARDEX S 16, ARDEX S 16 W and ARDEX S 21 cement-based adhesives. ARDEX E 90 is diluted with an equal volume of water prior to mixing with the ARDEX adhesive powder. The addition of ARDEX E 90 produces a mortar that, once set and hardened, has high adhesive strength, elastic and water repellent properties.

The mixed mortar has the same properties as the normally mixed ARDEX adhesive mortar; workability, slump resistance, high initial grab, open time, etc. The substrate preparation follows the recommendations given for the ARDEX adhesives, except that glazed surfaces do not require priming, though they must be clean and free of barrier materials. The improved mortar is especially effective in the following situations:-

Fixing large flat-backed tiles and slabs as well as smooth backed, dense and impervious ceramics, vitreous mosaics, etc.

Direct fixing of ceramic tiles onto existing glazed surfaces.

ARDEX X 7 G or X 7 W/ARDEX E 90 mortar can be used for internal or external applications and is useful to inhibit the formation of lime bloom and efflorescence on external tiling.

ARDEX S 16/ARDEX E 90 mortar is particularly useful in internal situations where rapid drying is important; such as fixing to plywood, following priming with ARDEX P 82, and other moisture sensitive backgrounds, and when fixing to existing smooth impervious surfaces where early walkability is required.

ARDEX S 16 W/ARDEX E 90 mortar has the additional advantage of its white colour combined with its rapid setting and drying properties when fixing translucent marble, tiles and glass mosaics in internal situations.

ARDEX S 21/ARDEX E 90 mortar is ideal for bedding large flat backed and/or smooth dense tiles and for providing water repellent bedding where required. ARDEX S 21/ARDEX E 90 mortar may also be used for applications to existing smooth impervious surfaces.

### MIXING

In a clean container dilute the ARDEX E 90 with an equal volume of clean water. Add the ARDEX adhesive powder to the diluted ARDEX E 90 whilst stirring thoroughly until an easily worked mortar is obtained. The viscosity and slump resistance of the mortar can be adjusted by slightly increasing, or reducing the amount of water to suit site conditions and the materials being fixed.

With ARDEX X 7 G and X 7 W, 3.6kg of ARDEX E 90, diluted with 3.6 litres of water, is sufficient for a 20kg bag.

ARDEX S 16 and ARDEX S 16 W are mixed in a similar manner with ARDEX E 90. With these rapid setting adhesives the ARDEX E 90, diluted with an equal volume of water, is used to mix sufficient ARDEX S 16 or ARDEX S 16 W powder that can be used within the working time.

ARDEX S 21 is also mixed by using ARDEX E 90 diluted with an equal volume of water. Due to the low water requirement of ARDEX S 21, 2kg of ARDEX E 90 is usually sufficient for a 22kg bag.

### APPLICATION

The mixed mortar is applied in the same way as the normal ARDEX adhesive mortar when fixing ceramic tiles, mosaics, etc. For more information consult the relevant ARDEX product data sheet.

### MATERIAL REQUIREMENT

3.6kg of ARDEX E 90 when diluted with an equal volume of water is sufficient for a 20kg bag of ARDEX X 7 G or X 7 W, ARDEX S 16 or ARDEX S 16 W. 2kg of ARDEX E 90 is sufficient for a 22kg bag of ARDEX S 21.

### PACKAGING

Polyethylene containers of 3.6kg and 2kg.

### STORAGE AND SHELF LIFE

ARDEX E 90 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 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.

### TECHNICAL DATA

The table below gives a comparison of values obtained after 28 days using ARDEX X 7 G or X 7 W with and without ARDEX E 90 mortar admix.

ARDEX X 7 G or X 7 W/ ARDEX E 90	ARDEX X 7 G or X 7 W
<b>Compressive Strength</b> 17.5 N/mm <sup>2</sup>	17.9 N/mm <sup>2</sup>
<b>Tensile Bending Strength</b> 6.8 N/mm <sup>2</sup>	6.4 N/mm <sup>2</sup>
<b>Shear Adhesion Strength</b> 2.2 N/mm <sup>2</sup>	1.8 N/mm <sup>2</sup>
<b>Followed by 28 days immersion in water</b> 1.8 N/mm <sup>2</sup>	1.5 N/mm <sup>2</sup>
<b>Followed by 25 freeze/thaw cycles</b> 1.6 N/mm <sup>2</sup>	1.3 N/mm <sup>2</sup>
<b>Deformation according to DIN 18156, part 3</b> 0.2mm	0.03mm

**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:**  
01440 714939  
ARDEX online: [www.ardex.co.uk](http://www.ardex.co.uk)