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# ARDEX R 4 E

## Solvent-Free, Two-Component Epoxy Resin

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Excellent adhesion to mineral substrates

Primer and hardener

Fills cracks in concrete flooring

Adheres to continuous polymeric flooring

Solvent free (100% solids)

Easy application

Can be mixed or dusted with sand

Internal or external use

Meets EN 13813-2002

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# ARDEX R 4 E

## Solvent-Free, Two-Component Epoxy Resin

### DESCRIPTION

ARDEX R 4 E is a fluid, two-component epoxy resin. It is solvent-free with excellent wetting properties for use as a surface hardener, filler and as a primer with ARDEX Industrial Coatings. After hardening, ARDEX R 4 E is resistant to the passage of water, chemicals, frost and weathering.

### USES

- Sealant and hardener for concrete flooring
- Primer for epoxy and polyurethane products on concrete substrates
- Filling cracks and cut joints

### SURFACE PREPARATION

Concrete floors must be solid, clean and free of wax, grease, asphalt, latex compounds, curing and sealing compounds and any other surface contaminants. Mechanically clean the floor using recommended preparation methods such as shot-blasting, scarifying, diamond grinding, shaving or other suitable methods. Vacuum the substrate.

Properly treat and seal all joints or gaps in the concrete substrate where differential movement is expected (e.g. expansion joints). In the case of new concrete, wait at least 28 days following installation before applying ARDEX R 4 E. Ensure substrate moisture content is <4%.

### MIXING

The individual components of ARDEX R 4 E should be stirred before mixing. Thoroughly mix the two components together with a mixer at low speed for a minimum of 3 minutes.

Part of the mixture can be reintroduced into the hardener container to gather remaining residues in the container. The mixture which has been reintroduced into the hardener container can be returned to the mixing container and stirred for a further 30 seconds. This mixing process ensures the product's consistency and that any residual resin remaining in the containers reacts.

After the two components are mixed, use immediately. 1kg of ARDEX R 4 E will remain workable for 30 minutes at temperatures between 18°C and 20°C.

### IT IS NOT ADVISABLE TO CARRY OUT PARTIAL MIXTURES BY VOLUME

### IMPORTANT

Towards the end of the mixture's useful life and due to its high level of reactivity, the mixture will heat up, resulting in a sharp decline in its pot life. The heat increases in proportion to the amount of resin remaining in the container.

In these cases (high temperature) do not touch the drum. In case of fumes, cover with the lid, but do not close, and, using the handle, place somewhere cool and well ventilated or somewhere outdoors to prevent the accumulation of gases.

### APPLICATION

#### 1. As a hardener for concrete floors

Apply ARDEX R 4 E generously on the substrate using a rubber squeegee. To level and finish use a thread or short/medium nap roller. A single application will be sufficient. If necessary, on very absorbent and porous substrates, apply a second layer 12 to 24 hours after application of the first.

#### 2. Acting as a filler of cracks and cut joints

Make holes at a depth of  $\frac{2}{3}$  the slab's thickness, separated by a distance of 10cm and with a minimum diameter of 12mm. Make a cut with a circular saw perpendicular to the direction of the crack and, if necessary, reinforce with Rhino Concrete Crack Lock.

Before filling with ARDEX R 4 E, vacuum and blow the cracks, holes and cuts to remove all dust and dirt.

Non-continuous hairline cracks can be closed with ARDEX R 4 E without using the product as a filler. Generally, ARDEX R 4 E can be mixed with fine silica sand. In the case of cracks which are 5mm wide, an approximate mixture ratio is recommended (by weight) of 1 part ARDEX R 4 E to 0.5 parts of 0.4mm sand filler. For wider cracks, use a higher dosage of filler.

#### 3. As a primer for epoxy and polyurethane products

Apply ARDEX R 4 E by brush or short/medium nap roller. The primer must be completely dry to the touch, with at least 16 hours elapsing at 20°C before finishing layers are applied. Never wait more than 48 hours at 20°C - otherwise, it will need to be sanded and re-primed. When dry resin mortars are applied, the primer must be fresh. In multilayered systems, dust the primer with sand.

### LIMITATIONS

Do not use ARDEX R 4 E where ambient and/or substrate temperatures are less than 10°C or less than 3°C above dew point. Do not use where ambient or substrate temperatures exceed 30°C or where ambient

humidity exceeds 85%. If pot life is exceeded the mixed product loses characteristics and should be disposed of.

## CLEAN UP

Clean tools and equipment immediately after use with an applicable solvent. Hardened product will need to be removed mechanically.

Any spillage from any of the products must be removed immediately with sand, vermiculite or other inert material and collected in a suitable container for proper handling and treatment. Residues from spillage and empty containers must be dealt with in accordance with local regulations. See product safety sheet for further information.

## STORAGE

ARDEX R 4 E can be stored for up to 12 months in its original unopened packaging. The product should be stored in a dry place between 5°C and 30°C. Keep away from frost, direct sunlight and sources of heat.

## COVERAGE

Recommended 200-300g/m<sup>2</sup> per coat depending on the porosity of the substrate.

## PACKAGING

ARDEX R 4 E is available in kits of 10kg, containing two parts (7.5kg & 2.5kg).

Product Name	Size
ARDEX R 21 PU Kit	10kg

## PRECAUTIONS

Harmful if swallowed. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May cause damage to organs with prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

Do not breathe dust, fume, gas, mist, spray, vapours. Wear protective gloves, protective clothing, eye and face protection. IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediately call a POISONS CENTRE. Dispose of contents/container to hazardous or special waste collection point, in accordance with local regulation. Contains isocyanates. May produce an allergic reaction.

Additional information is in the Safety Data Sheet at [www.ardex.co.nz](http://www.ardex.co.nz)

## TECHNICAL DATA

Characteristics	Result
Density	Approx. 1.1kg/L
Working time @ 20°C	30 minutes
Walkable after	24 hours
Full cure	7 days
Re-coatable @ 20°C	After approx. 16 hours

**Toll Free Technical Services:**  
**1800 224 070 (Australia)**  
**0800 227 339 (New Zealand)**

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