

# R 24 CE

## Self-smoothing Epoxy Floor Underlay



### DESCRIPTION

R 24 CE is an economical, self-smoothing, epoxy resin floor underlay applied between 1 - 4 mm thickness. It combines outstanding mechanical properties with chemical resistance to provide a flat, seamless surface to receive epoxy based coatings or toppings.

### USES

R 24 CE can be used as an underlay for resin floors in

- Laboratories & clean rooms
- Food and beverage production
- Electronics and electrical industry
- Pharmaceutical manufacturing
- Warehouses and storage areas
- Automotive manufacturing
- Textile and paper mills
- Chemical industry
- General medium to heavy industry

### FEATURES

- Economical underlay
- Seamless
- Self-smoothing
- Solvent free
- Excellent adhesion to cementitious substrates and subsequent finishes
- Tough & Hard wearing: durable with low maintenance cost
- Resistant to a wide range of chemicals and liquids

### PHYSICAL PROPERTIES

R 24 CE @ 27 ± 1°C

Thicknesses	1mm - 4mm
Pot life	~100 minutes
Initial hardness	24 hours
Full cure	7 days
Bond strength	1.5 MPa
Compressive strength BS 6319 Part 2	≥80 Mpa @ 7days
Flexural strength BS 6319 Part 3	≥30 MPa @ 7days
Tensile strength BS 6319 Part 7	≥18 MPa @ 7days
Shore D Hardness ASTM D 2240	75
VOC Content	17.73 g/L

### CHEMICAL RESISTANCE

R 24 CE is resistant to wide range of liquids and chemicals like most dilute acids (acetic, oleic, citric, hydrochloric, nitric and sulphuric acid), milk, animal fats and vegetable oils, sugars flavourings, essences, mineral oils, kerosene, petrol, mineral

spirit, brake fluids, detergents etc. Chemical spillages should always be wiped up as quickly as possible and not be allowed to concentrate up by evaporation.

The data on the list of the chemicals found resistant to this product during our lab study is available on request.

### COVERAGE ESTIMATES

Pack Size 25 kg

THICKNESS	1mm	2 mm
Resin (Part A)	5 kg	5 kg
Hardener (Part B)	2 kg	2 kg
Filler (Part C)	15 kg	18 kg
Coverage (approx.)	~12.2 m <sup>2</sup>	~6.7 m <sup>2</sup>
Mixed Density	~1.80 g/cc	~1.85 g/c

### APPLICATION INSTRUCTIONS

Installation of R 24 CE should be carried out only by an approved applicator of ARDEX ENDURA.

#### Surface Preparation

**Note:** The substrate should have a surface tensile strength of at least 1.5 N/mm<sup>2</sup>.

The concrete substrate must be hard, sound, free of dust and other barrier materials such as paint, lime coatings, plaster, curing agents, laitance, oil, grease, wax, polish etc., that will inhibit adhesion to the substrate.

New concrete floors must be allowed to cure for at least 28 days and shall have an effective damp-proof membrane below to prevent rising dampness. Contaminated concrete surfaces should be mechanically prepared, by grinding, scarification, shot blasting or similar methods and be vacuum cleaned prior to installing R 24 CE. Overwatered or otherwise weak concrete surfaces must be suitably prepared down to sound, solid concrete by mechanical methods. Dust and other debris should be removed using vacuum equipment.

**Note:** Any joints in the base e.g. movement joints, should be brought through to the finished surface and suitably sealed.

#### Priming

All areas to be treated with R 2 CE/ R 3 E/ R 9 CE must be first primed with a suitable epoxy primer from the ARDEX ENDURA range. Selection of the primer must be made depending on the substrate condition & porosity. Please refer to the individual primer data sheets for further details.

One or more coats of the primer may be required depending upon the condition and porosity of the concrete substrate. High porosity substrates may be revealed after preparation and will be evident by their rapid suction and absorption. Poorly primed surfaces may lead to blistering or pin holing in the cured resin.

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Alternatively, two coats of R 24 CE (Part A and Part B) can be used as primer for any type of substrate condition and porosity.

### Mixing

The individual contents of the R 24 CE should be thoroughly stirred before being mixed together. The entire contents of the Part A and Part B should be poured into a large mixing vessel to incorporate the Part C. Mix thoroughly with a spiral mixing paddle in a slow speed drill. Finally the Part C is added to the same vessel together and mixed until a consistent homogenous mix is achieved. One or more packs may be mixed simultaneously to ensure a quick rate of installation.

### Application

The mixed R 24 CE material should be applied to the prepared and primed surface without delay using a trowel or depth set rake to achieve the desired thickness. As soon as the R 24 CE has been laid and as work progresses, the surface should be gently rolled with a spiked roller in order to release any entrapped air from the mix also to blend out any trowel marks. The work area should be protected during the installation process and during the initial curing time to ensure that no debris can contaminate the surface of the resin, as this will lead to unwanted blemishes in the hardened, cured surface.

### Subsequent Finishes

Application of subsequent epoxy based coatings or toppings should commence after 24 hours but not later than 48 hours after installation of R 24 CE. Later 48 hours may require one additional coat of primer to ensure proper adhesion and enhanced flow of subsequent applications

### DO'S & DON'T'S

R 24 CE should not be applied to floors that are known to have rising moisture or have relative humidity of greater than 75% at the time of application. These products should not be applied in temperatures less than 10°C or where the ambient relative humidity is greater than 85%.

### CLEANING

R 24 CE can be removed from tools and equipment by using RTC 100 immediately after use. Any hardened material will need to be removed mechanically.

### STORAGE AND SHELF LIFE

R 24 CE has a shelf life of 12 months if kept in a dry, clean store between 5°C and 30°C in the original unopened containers. The

product should be protected from frost, away from direct sunlight and sources of heat.

### PRECAUTIONS

During mixing and application the following precautions should be observed: Ensure adequate ventilation and avoid contact of the material with the eyes, nasal passages, mouth and unprotected skin. Avoid contact with the hands by wearing protective gloves and by using, if necessary, a suitable barrier cream. In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice and after contact with the skin wash immediately with plenty of soap and water. Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to resin-based materials. Always wear gloves and eye/face protection as necessary. Observe personal hygiene, particularly washing the hands after work has been completed or at any interruption whilst work is in progress. Care should be taken when removing gloves to avoid contaminating the insides. In case of accidents seek medical advice.

### DISPOSAL/SPILLAGE

Spillage of any of the product components should be absorbed onto sand or other inert materials and transferred to a suitable disposable vessel. Disposal of such spillage or empty packaging should be in accordance with local waste disposal authority regulations. For further information please refer to the Material Safety Data Sheet.

### CONDITIONS OF SALE

Sold subject to the Company's conditions of sale which are available on request.

### NOTE

The information supplied in this datasheet is based upon extensive experience and 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.



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