

# R 35 CE

## Solvent free, high build epoxy floor coating



### DESCRIPTION

R 35 CE is a solvent free, high performance, epoxy floor coating available in both pigmented and non-pigmented versions. It combines outstanding wearing properties with chemical resistance and decorative finish. Ideally suited in situations where a seamless, joint free finish floor is required and maximum cleanliness is essential. R 35 CE can be applied between 400 - 500 microns thickness.

### USES

- Laboratories & clean room
- Chemical manufacturing plants
- Workshops
- Production and processing areas
- Dairies
- Laboratories & clean rooms
- Food and beverage production
- Pharmaceutical plants
- Internal car parks

### FEATURES

- Seamless: easily cleanable to maintain high standards of hygiene
- Tough & Hard wearing: durable with low maintenance cost  
Resistant to a wide range of chemicals and liquids Provides a high gloss finish
- Slip resistant finish possible with use of anti-slip aggregates in wet working areas and car parks
- Food grade: CFTRI approved; confirms to the specifications as per U.S FDA 175.300
- Supplied in pre-measured packs for ease of mixing and consistency at site
- Available in any standard RAL colours
- Available in non-pigmented version for on-site blending of colour pigment

### PHYSICAL PROPERTIES

R 35 CE @ 27 ± 1°C

Mixed Density	1.37 g/cc
Pot life	30 minutes
Initial hardness	24 hours
Full cure	7 days
Bond strength	> 1.5 N/mm <sup>2</sup>
Compressive strength	30 N/mm <sup>2</sup>
Flexural strength	> 20 N/mm <sup>2</sup>
Tensile strength	~15 N/mm <sup>2</sup>

Water absorption	Nil
VOC Content	20 g/L
Abrasion Resistance (ASTM D4060)	~ 0.09g loss/1000Cycles (1kg load using CS17 Wheels)

### CHEMICAL RESISTANCE CHART

Chemical	Concentration in %	Results
Acetic acid	10	Blue
Acetic acid	50	Red
Acetone	100	Red
Ammonia	30	Green
Beer	100	Green
Citric acid	50	Blue
Coffee	100	Green
Diesel	100	Green
Formic Acid	50	Red
Guava Juice	100	Green
Hydrochloric acid	35	Blue
Hydrochloric acid	25	Green
Hydrogen peroxide	20	Green
Kerosene	100	Green
Lactic Acid	25	Blue
Lemon solution	100	Green
Mango Juice	100	Green
Methanol	100	Red
Milk	100	Green
Nitric acid	30	Green
Nitric acid	50	Red
Oleic Acid	100	Green
Orange juice	100	Green
Papaya Juice	100	Green
Petrol	100	Green
Promogranate Juice	100	Green
Red wine	100	Green
Sabeena solution	100	Green
Sambar	100	Green
Saturated salt solution	100	Green
Saturated sugar solution	100	Green
Sodium Hydroxide	50	Green
Sodium Hypo chlorite	15	Green

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Sulphuric acid	25	R
Tea	100	R
Tomato Juice	100	R
Vegetable oil	100	R
waste oil	100	R
Xylene	100	L

Resistant	R
Limited Resistance	L
Not Resistant	N

Resistant : Subject to reasonable standards of housekeeping.

Limited Resistance : Occasional spillage tolerated, If the floor is washed down Immediately.

Not Resistant: Rapid & severe attack even by small spillages.

**NOTE:** Discoloration is not classified as chemical attack/Resistance, if hardness is unchanged

## COVERAGE ESTIMATES

Pack size	Coverage
6 kg	For smooth finish
Part A 4.95kg	18 - 20 m <sup>2</sup> /coat/ kit @
Part B 1.05kg	200 microns
	For slip resistant finish
	15 - 17 m <sup>2</sup> /coat/ kit @
	250 microns

## APPLICATION INSTRUCTIONS

Installation of R 35 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 .

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. 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. Overwatered or otherwise weak concrete surfaces must also be suitably prepared down to sound, solid concrete by mechanical methods. Dust and other debris should be removed using vacuum equipment.

The ideal substrate for application is a flat, lightly textured, clean concrete surface. Surface irregularities must be ground down or filled out with ARDEX ENDURA range of repair materials. Concrete surfaces should be mechanically prepared, either by grinding or other methods to obtain a suitable substrate and be vacuum cleaned.

### Priming

All areas to be treated with R 3 E or 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.

### Mixing

The individual contents of the R 35 CE should be thoroughly stirred before being mixed together. The entire contents of Part B should be poured into Part A and the two materials mixed thoroughly for at least 2 minutes using a heavy duty slow speed drill with spiral paddle. Some of the mixed components should be reintroduced back into the hardener container in order to activate any residue and then poured back into the larger mixing vessel and re-mixed for 30 seconds. Mixing in this way will ensure product consistency and that any resin that remains in the containers after application will cure to provide for easier waste disposal.

**Note:** Once mixed, the R 35 CE will generate heat and lose working time if it is left in the mixing container or otherwise kept in bulk.

### Application

Once mixed the R 35 CE should be poured directly onto the floor and distributed without delay to the prepared surface using a brush or short/medium pile roller. Ensure that the entire surface is coated and that 'ponding' of the material does not occur.

A second coat is applied as soon as the first coat has dried (typically 6 - 8 hours). This time will vary depending upon the condition of the surface and the ambient temperature. Provision for ventilation and air movement will be required. When using new rollers, ensure that all loose fibres are removed prior to use, any loose fibres released from the roller will cause unsightly blemishes in the finished coating.

### Slip Resistant Finish

A fine textured finish with improved slip resistance may be achieved by the use of R 130 C anti-slip aggregate. Following the application of the first coat of R 35 CE, broadcast R 130 C @ 0.6 - 1.0kg/m<sup>2</sup> (depending on the area/location of use) onto the wet coating to seed the surface. After initial cure, the excess aggregates should be removed by brushing or vacuuming. The second coat of R 35 CE will then encapsulate the aggregates. Depending on the surface profile and quantity of R 130 C used, the second coat may consume more material than the first coat to achieve a fully sealed surface.

**Note:** Any joints in the concrete base where differential movement is anticipated such as movement joints should be brought through to the finished surface.

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### LIMITATIONS

R 35 CE should not be applied in temperatures less than 10°C or where the ambient relative humidity is greater than 85%

### CLEANING

R 35 CE can be removed from tools and equipment by using RTC 100 immediately after use. Any hardened material will need to be removed mechanically.

### MAINTENANCE

Good housekeeping and regular cleaning is essential in order to maintain the performance of R 35 CE. It is particularly important in areas that are subject to regular spillage of chemicals. Spillages should not be allowed to dry, which results in higher concentrations of the chemicals, which may lead to early failure. Regular cleaning of the surface with a rotary scrubbing machine in conjunction with a water miscible cleaning agent is recommended. Do not steam clean or use hot water above 55°C to wash the surface.

### STORAGE AND SHELF LIFE

R 35 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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