

# R 213 CE

## Epoxy modified cementitious self smoothing floor screed

### DESCRIPTION

R 213 CE is a specialist applied, self-smoothing, epoxy modified cementitious floor screed with excellent resistance to wear and abrasion. R 213 CE can be applied over damp concrete and also in areas that are in close proximity to water. Ideally suited in areas where a seamless, joint free finish is required and maximum cleanliness is essential. Diaries, Breweries, Clean rooms and areas continuously exposed to water are just some of the environments that can benefit from this system.

When over coated with Epoxy coating the chemical resistance properties are enhanced. It is also suited for the areas where high hygiene is required. Application Thickness 2 - 4 mm

### USES

- Levelling of concrete surfaces in new works or repairs
- Repair & maintenance of vacuum dewatered concrete floors
- Laboratories and clean rooms
- Pharmaceutical manufacturing
- Food and beverage production
- Warehouses and storage areas
- Chemical manufacturing units
- Textile industry

### FEATURES

- Solvent free: Non toxic and safe to use indoors
- Moisture tolerant: Can be applied on damp concrete substrates
- Good self-smoothing property
- Provides combined strength of both cement & epoxy
- Hard wearing, durable with low maintenance cost
- Resistance to wide range of chemicals
- Seamless : easily cleaned to maintain high standards of hygiene
- Compatible with resin based overlays

### PHYSICAL PROPERTIES

<b>R 213 CE Primer</b>	@ 27 ± 1°C
Pot life	60 mins
Re-coat time	4 - 5 hours
Bond strength	> 2.0 N/mm <sup>2</sup>
<b>R 213 CE</b>	@ 27 ± 1°C
Pot life	10 - 15 mins
Mixed Density	approx. 2.10 g/cc
Initial hardness	48 hours
Top covering timing	48 - 96 hours
Full cure	7 days
Bond Strength	
after 7 days	> 1.5 N/mm <sup>2</sup>
After 28 days	> 2.5 N/mm <sup>2</sup>

Compressive Strength	
after 7 days	18 N/mm <sup>2</sup>
after 28 days	30 N/mm <sup>2</sup>
Tensile Strength	
after 28 days	4 N/mm <sup>2</sup>
Flexural Strength	
after 28 days	7 N/mm <sup>2</sup>
Shore D Hardness	> 70.00
after 7 days	

### COVERAGE ESTIMATES

Pack Size	Coverage
<b>R 213 CE Primer</b>	
2.50 kg	Approx. 25 m <sup>2</sup> /coat/kit
Part A 1 kg	
Part B 1.50 kg	
<b>R 213 CE</b>	
26.25 kg	Approx. 6.25 m <sup>2</sup> /pack @ 2mm thickness
Part A 1.83 kg	
Part B 3.58 kg	
Part C 20.84 kg	

### APPLICATION INSTRUCTIONS

#### Surface Preparation

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

Contaminated concrete surfaces should be mechanically prepared, either by scabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to application of R 213 CE Primer. Over watered 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.

All cracks, potholes and construction joints shall be treated prior to the application of primer.

**Note:** Any joints in the concrete base where differential movement is anticipated e.g. movement joints, should be brought through to the finished surface. New concrete slabs must be allowed to cure for at least 14 days.

#### Priming

All areas must first be primed with R 213 CE primer. Two or more coats of primer may be required depending upon the condition and the porosity of the concrete substrate. Poorly primed surfaces may lead to blistering or pinholes in the cured system. Ensure that the R 213 CE is laid only after 12 hours after application of the primer.

#### Mixing

The individual contents of the R 213 CE should be thoroughly stirred before being mixed together. The entire contents of the Part A and Part B should be poured into a larger mixing vessel to

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incorporate the Part C. Mix thoroughly for 30 seconds in a medium duty drilling machine (600 rpm). Finally the Part C is added to the same container. The mixing of all the three should continue for 1-2 minutes to get a homogeneous mix. Do not mix for more than 2 minutes.

### Application

The mixed R 213 CE material should be poured onto the prepared and primed surface without delay and spread using a gauged notched trowel or depth set rake to achieve the desired thickness. One kit application should be completed (Trowel & Rolling) within 10 minutes at 30°C including mixing time. As soon as the R 213 CE has been laid and as work progress, 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 contaminate the surface of the resin, as this will lead to unwanted blemishes in the hardened, cured surface.

### NOTE :

- R 213 CE should only be applied at temperature above 10°C and where the atmospheric relative humidity (RH) is 85% or below. R 213 CE should not be applied to floors that are known to have rising moisture. For floors with an RH of more than 75%, the entire floor area should be treated with effective suitable damp proof membrane.
- Once the mixed material has exceeded its pot life, the viscosity and the characteristics of the product will change and any unused product should be discarded at this time.

### CLEANING

R 213 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 213 CE has a shelf life of 6 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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