R 71 CP

Self-Smoothing Epoxy Polyurethane Floor Topping

Features

1 mm thick, smooth, tough, hard wearing, durable with low maintenance costs

Good abrasion resistance. Withstands foot and vehicular traffic

Resistant to a wide range of chemicals and liquids

Seamless - easily cleaned to maintain high standards of hygiene

Self-smoothing properties provide a flat high gloss finish

Hygienic

STANDARD COLOURS

Available to any standard RAL Card upon request

Indian Green Building Council
M E M B E R

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R 71 CP

Self-Smoothing Epoxy Polyurethane Floor Topping

DESCRIPTION

A specialist applied, 1mm thick self-smoothing epoxy polyurethane resin floor finish combining outstanding wearing properties with chemical resistance and decorative properties. Ideally suited in areas where a seamless, joint free finish is required and maximum cleanliness is essential. Laboratories, clean rooms, and general light industry are just some of the environments that can benefit from this system.

SURFACE PREPARATION

It is essential that R 71 CP is applied to sound, clean and dry surfaces to ensure maximum adhesion.

R 71 CP is designed for use as a thin coat application at internal areas.
NOTE: Thin coatings will reflect the surface texture of the substrates and as such high spots may lead to premature wear of the floor topping, thus surface preparation techniques should be chosen appropriately. The ideal substrate for application is a flat, lightly textured, clean concrete surface.

SUBSTRATE 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.

Use a suitable degreaser to remove polish, wax, grease, oil and similar contaminating substances prior to mechanical preparation. Contaminated concrete surfaces should be mechanically prepared, either by scrabbling, grinding or contained shot blasting equipment or similar, and be vacuumed clean prior to applying R 71 CP. 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.
NOTE: Any joints or cracks 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 to be treated with R 71 CP must first be primed with ARDEX ENDURA R 3 E Solvent Free Epoxy Primer. One or more coats of 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. If in doubt use two coats of ARDEX ENDURA R 3 E Solvent Free Epoxy Primer. Poorly primed surfaces may lead to blistering or pin holing in the cured resin.

MIXING

The individual contents of the Part A, Part B and Part D should be thoroughly stirred before being mixed together. Mix Part D with Part A. Ensure smooth mixing. The entire contents should be poured in to a larger mixing vessel to incorporate the
Part B and Part C. The four materials are mixed thoroughly with a spiral mixing paddle in a slow speed drill. The mixing of all the four should continue for 1 minute until a consistent homogenous mix is achieved. One or more packs may be mixed simultaneously to ensure a quick rate of installation.
NOTE: Once mixed, the R 71 CP will generate heat and lose working time if it is left in the mixing container or otherwise kept in bulk.

APPLICATION

The mixed R 71 CP 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 71 CP 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.

LIMITATIONS

R 71 CP 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 10ºC or where the ambient relative humidity is greater than 85%. Should it be determined that moisture is present in the concrete less than 5%. 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. Do not steam clean or use hot water above 50°C to wash the surface. Do not install R 71 CP at places where direct or indirect sunlight is expected as R 71 CP undergoes yellowing effect.
NOTE: All products are manufactured under strict Quality Assurance procedures, however it is recommended that where colour consistency is essential, wherever possible, products from one batch should be used.

CLEANING

R 71 CP can be removed from tools and equipment by using ARDEX ENDURA RTC 100 immediately after use. Any hardened material will need to be removed mechanically.

PROPERTIES

The values shown are typical of results obtained in the laboratory at 27 ± 1°C. Actual performance values obtained on site may vary from those quoted.

PHYSICAL PROPERTIES

R 71 CP	@ 27 ± 1°C
Pot life	40 minutes
Mixed Density	1.45 - 1.50 g/cc
Initial hardness	24 hours
Light foot traffic	24 hours
Full cure	7 days
Application Thickness	1 mm
Shore D Hardness	> 70
Bond Strength	> 1.50 N/mm²
Compressive Strength BS 6319 (P2)	> 65.0 N/mm²
Tensile Strength ASTM C - 307	> 15.0 N/mm²
Flexural Strength ASTM C - 580	> 33.0 N/mm²

COVERAGE ESTIMATES

Pack size	Coverage
15kg Part A 5kg Part B 2kg Part C 7.5kg Part D 500g	Approximately 10 m² @ 1 mm thick

NOTE: These figures are theoretical, due to the wastages and the variety and nature of substrates practical coverage figures may be reduced.

STORAGE AND SHELF LIFE

R 71 CP has a shelf life of 12 months if kept in a dry, 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.

CHEMICAL RESISTANCE

R 71 CP is resistant to a wide range of chemicals like Petrol, Engine oil, Brake fluid, Mineral spirit, Diesel, Mild acids, Detergents etc.

MAINTENANCE
Good housekeeping and regular cleaning is essential in order to maintain the performance of R 71 CP. It is particularly importance 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 or hot water washing at temperatures up to 50ºC is recommended.

PRECAUTIONS
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 (do not use solvents). Prolonged contact with the skin should be avoided, especially where the user has an allergic reaction to epoxide materials. Always wear gloves and eye/face protection is 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 component products 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.