

REC EPO 00294

HIGH CHEMICAL RESISTANT PROTECTIVE LINING

DESCRIPTION

REC EPO 00294 is a solvent free, highly cross linked, high build epoxy-based coating. **REC EPO 00294** is a two-part material and can be applied by brush, roller or airless spray. **REC EPO 00294** is grey in color. It is formulated to be applied in one or two coats to achieve a minimum total dry film thickness of 500 microns. Higher thickness can be specified.

PRIMARY APPLICATION

REC EPO 00294 is an epoxy lining designed to provide protection to concrete and steel structures in aggressive chemical conditions. The material is particularly suitable in wastewater treatment plants, desalination plants, demineralization plants, food processing plants, pulp and paper mills, electric power plants, chemical manufacturing plants, fertilizer and insecticide plants and petroleum refineries.

REC EPO 00294 may be used with or without anti-slip grains as a heavy-duty floor coating in applications such as chemical processing and drum storage areas, loading docks and ramps. It may also be used in conjunction with glass fiber cloth to increase the thickness of the system or to reinforce structures subjected to aggressive chemicals.

FEATURES/BENEFITS

- **REC EPO 00294** is 100% solids, no solvents
- **REC EPO 00294** exhibits excellent chemical resistance in pH ranging from 1-14 at 25°C
- **REC EPO 00294** has excellent adhesion to properly prepared concrete, mild steel, and other substrates
- **REC EPO 00294** has excellent abrasion resistance

TECHNICAL INFORMATION

Solid Content	100%	
Finish	Gloss	
Color	Grey	
Specific gravity	1.35	
Pot life	45 min. @ 23°C It varies with the temperature of site.	
Tack-free time	4 hours @ 23°C It depends on the specific site conditions.	
Overcoating time	Temperature	Time
	23°C	<16 hours
	35°C	<10 hours
Full cure	23°C	7 days
	35°C	5 days
Tensile strength (ASTM D638)	30 N/mm ²	
Flexural strength (ASTM C580)	30 N/mm ²	
Compressive strength (ASTM C579)	85 N/mm ²	
Hardness (ASTM D2240)	>70 Shore D	
Abrasion resistance (ASTM D4060)	<0.10 mg/cycle (1kg, CS10 Wheels)	
VOC	Negligible	

DIRECTIONS FOR USE

PREPARATION OF CONCRETE SURFACES

All surfaces, which are to receive the lining, must be at least 28 days old and have a moisture content of less than 5%. These surfaces shall be dry, sound and free from debris and loose material. The substrate must be free from contamination such as oil, grease, wax, dirt or any other form of foreign matter which might affect adhesion. All blow holes and imperfections should be filled with REC Epoxy Repair Mortar.

PREPARATION OF STEEL SURFACES

All surfaces should be grit blasted to meet the requirements of BS4232, First Quality.

The lining work should be programmed so that newly cleaned steel is coated as soon as possible before the formation of rust or scale.

PRIMING

REC EPO 00294 is designed to be used without primer. However, if the condition of the concrete substrate requires priming, REC PRIMER 900* can be used.

MIXING

It is imperative that the resin be thoroughly mixed with the hardener in the exact ratios to ensure optimum performance. Therefore, the entire contents of the hardener can should be added to the base container and mixed until a uniform color and consistency is obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that mechanical mixing be employed using a Jiffy mixer on a slow speed electric drill.

APPLICATION

Once mixed, **REC EPO 00294** should be immediately applied to the prepared surface ensuring a continuous coating of uniform thickness is obtained. Stiff nylon brush or short nap roller is recommended for such application. Faster rate of application is possible using airless spray equipment.

RE-COATING

To re-coat, it is imperative that the second coat be applied within the specified over-coating time.

USE OF GLASS FIBER REINFORCEMENT

REC EPO 00294 may be used in conjunction with glass fiber cloth to increase the thickness of the system or, where necessary, bridge fine cracks in the substrate. The cloth should be laid directly on the first coat whilst wet and should be pressed in and smoothed out with a split washer roller. A second coat should then be applied within the specified over-coating time.

USE OF RECKON ANTI-SLIP GRAINS

REC EPO 00294 can be used in conjunction with RECKON anti slip Grains*† to provide a heavy-duty slip-resistant flooring system.

The first coat will be applied as described above with a minimum film thickness of 200 -250 microns. The base coat should now be dressed with the chosen RECKON anti slip Grains.

The recommended procedure is to completely blind the base coat i.e. apply excess dressing aggregate to completely obliterate the base coat.

When the base coat has reached initial cure, the excess anti slip Grains should be vacuum-cleaned from the surface.

The top coat can then be applied. Care should be taken to ensure that a continuous film is achieved and the surface is completely sealed.

CLEANING OF TOOLS

REC EPO 00294 should be removed from tools and equipment with REC CLEANER immediately after use. Cured material can only be removed mechanically.

LIMITATIONS

- Substrate, ambient and product temperature must remain above 15°C during application and curing. Minimum material/container temperature for spray application is 20°C. Avoid moisture contamination.
- **REC EPO 00294** should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Thermo Hygrometer
- Application should not be undertaken if the temperature is below 5°C, or is 5°C and falling, nor when the prevailing relative humidity exceeds 90%.
- **REC EPO 00294** may not be color stable when in contact with some chemicals or direct sunlight. This coating is not recommended for exterior application.

TECHNICAL SUPPORT

RECKON offers a comprehensive technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

PACKAGING

REC EPO 00294 is sold in the form of a complete kit.

STORAGE & SHELF LIFE

When stored in dry air-conditioned stores at temperatures between 15-30°C, in the original, unopened containers **REC EPO 00294** will have a shelf life of 12 months.

If stored at high temperatures the shelf life will be reduced. Air-conditioned storage at high ambient temperatures is recommended.

HEALTH & SAFETY

REC EPO 00294 and **REC PRIMER** should not come in contact with skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapor. If working in confined areas, then suitable respiratory equipment must be worn. Some people are sensitive to resins and solvents. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin-removing cream, followed by soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice.

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