

REPOX® 510

Solvent-Free Epoxy Coating for Floors

DESCRIPTION

Epoxy resin based, double component, **self-levelling**, solvent free floor coating material with high chemical resistance and mechanical strength and finishes in a flat surface.

APPLICATION AREAS

- Indoor,
- Horizontal applications,
- Hygienic environments such as hospitals and laboratories,
- Wine, beverage (except concentrated fruit syrup), meat, fish and similar food industries,
- Medicine, dyestuff, paper, accumulator and fertilizer industries,
- Laundries, industrial kitchens and dining halls,
- Places exposed to heavy pedestrian traffic, such as shopping malls, terminals,
- Places exposed to heavy vehicle traffic, such as factories, warehouses and parkings,
- Data processing and control centers.

TECHNICAL PROPERTIES

Components	A: Epoxy resin, B: Hardener
Color	Standard RAL colors (except metallic, phosphorous colors and colors beginning with 4000)
Mixture Ratio	A: 25.5 kg, B: 4.5 kg
Mixture Density	1.55 ± 0.05 kg/L (20°C TS EN ISO 2811-1)(A+B)
Compressive Strength	40 – 50 N/mm ² (DIN 53504 TS 1967) 7 days
Bond Strength by Pull-off	> 2 N/mm ² (EN 1504-2) 7 days
Tensile Elongation	> 10% (DIN 53504 TS 1967) 7 days
Abrasion Resistance (Taber)	< 100 mg, 1000 cycle (EN 1504-2)
Impact Resistance	Class III (EN 1504-2)
Capillary Absorption and Water Permeability	w < 0.1 kg/(m ² . h0.5) (EN 1062-3)
Solid Content (Mixture)	By weight 100%, by volume 100%
Hardness (Shore D)	75 ± 5 (ASTM D 2240, DIN 53505)
Pot Life	50 – 70 minutes (23°C, 200 g, DIN 16945)
Application Temperature	Between +10°C and +30°C
Dirt Pick-up Time	3 – 4 hours (23°C TS 4317)
Dry to Touch Time	10 – 12 hours (23°C TS 4317)
Time to Use	72 hours (23°C TS 4317)
Top Coat Time	Maximum 24 hours (23°C TS 4317)
Complete Curing Time	7 days (23°C TS 4317)

ADVANTAGES

- Does not contain solvent.
- Resistant to chemicals, water and inorganic acids.
- Has high mechanical and abrasion resistance.
- Hygienic and suitable for sterilised conditions, does not require maintenance.
- Can easily be cleaned thanks to its smooth surface.
- Forms a jointless surface, has a hard glossy appearance.

CONSUMPTION

1.55 kg/m² for 1 mm thickness. (Varies depending on the absorption, roughness of the surface and the method of application). On self-levelling (A+B) coatings, the thickness must not be less than 1.25 mm. A second layer can be applied if required.

PACKAGING

Sets of 30 kg (A+B) tin cans

APPLICATION

PREPARATION OF THE SURFACE

- The surface must be free of weakly adhered parts, clear of materials that prevent bonding, such as dust, oil, tar, paint, silicone, curing materials, detergents and mold oils and be rough to improve adhesion.
- The surface must be dry and porous to increase adherence and primed with an appropriate **REPOX** primer. Use **REPOX AC Solvent-Free Epoxy Colored Primer and Mid-Coat** to increase the thickness.
- Determine the suitability of the surface moisture before application. Moisture should not exceed 4%.

MIXTURE

- REPOX 510 is packaged as two components in appropriate quantities. First mix each component in itself. Add 4.5 kg of component B (hardener) to 25.5 kg of component A (epoxy resin). Mix for 3-4 minutes until a homogeneous consistency is obtained with a drill with a 300 - 400 rpm mixer tip. Take the whole mixture into a clean container and mix again. If a part of the product is to be used, pay attention to the mixing rates.
- For thicker coatings, add aggregate in 1/1 ratio after A and B components are mixed. Mix again 3 - 5 minutes after adding the aggregate.

APPLICATION

- Spread REPOX 510 to the surface with a trowel to adjust thickness.
- Comb the entire surface with a spiked roller to release the air bubbles inside the product. Use spiked shoes during this process.
- Apply in a single coat, but in multi-coat applications for correction purposes, apply the second coat before the coat acceptance period. Otherwise, there is no chemical adhesion between the layers and there is a risk of peeling of the top layer. If the coat acceptance time has passed, the bottom layer should be roughened by mechanical methods.
- In outdoor applications, use **POLAN AF** or **POLAN AFM** as a topcoat to provide UV resistance.

CAUTION

- Avoid application at temperatures below +10°C and above +30°C.
- Use a suitable drill in mixing REPOX 510, never mix by hand or with a trowel.
- Do not add water, solvent, etc. to the mixture. Do not thin with thinner or similar materials.
- Bring the materials to the application area at least 24 hours before in order for them to adapt to the ambient conditions.
- Working and curing times of epoxy resin-based products depend on the ambient and floor temperature. As the viscosity increases at low temperatures, the amount of consumption also increases. The chemical reaction slows down, thus extending the pot life and working time. At high temperatures, the opposite is true.
- If heating is required in the application area, use only electrical, warm air blowing systems so that it does not affect the surface appearance.
- Avoid applying in frozen areas at risk of freezing within 24 hours, or that are directly exposed to the sun and wind.
- Do not walk on for at least 24 hours after the application. Avoid water contact and condensation 48 hours, otherwise carbonation will occur. In this case, clean the surface with sandpaper and apply a thin coat again.

- After the application is finished, clean the equipment only with cellulosic thinner. Hardened grout can only be removed mechanically.
- The opened package should be consumed within a maximum of 1 week under appropriate storage conditions.

SHELF LIFE

Expires in 12 months. Store unopened packages in a cool, dry environment, protect from sun, between +15°C and +25°C. Protect against freezing.

HEALTH AND SAFETY

As with all chemical products, avoid contact with food, skin, eyes and mouth during use and storage. In case of contact, wash immediately with plenty of water and soap, and if swallowed, consult a doctor immediately. During application, wear work clothes, protective gloves, goggles and masks in accordance with occupational health and safety rules. Do not bring food and beverage into the application areas. Do not approach the storage and application areas with fire. Ventilate the area. Store out of reach of children.

* The application instructions and technical values given for the products have been obtained in our tests in accordance with international standards and our experience, at 23 ± 2°C temperature and 50 ± 5% relative humidity. These values may vary depending on ambient conditions. High temperatures shorten the durations, low temperatures extend them. Before starting the application, whether the product is suitable for the application and purpose should be tested by the user. FIXA Construction Chemicals is not responsible for application errors that may occur if the product is used outside of its intended purpose or if the application conditions and recommendations mentioned above are not followed. This Technical Data Sheet is valid until the next revision is published. FIXA reserves the right to change the values specified in this Technical Data Sheet, provided that a new version is published. It is the user's responsibility to check the currency of the document. For more information, please contact our sales department.