

L'UNICFLOOR ESD30

Electrical Conductive Solvent-Free Epoxy Coating

Product Description

L'UNICFLOOR ESD30 is a multi-layer floor coating consisting of water-based epoxy based electrically conductive primer with solvent-free epoxy resin, and its hardener is cycloaliphatic polyamine. It is used in all environments requiring hygiene, antistatic, conductive, chemical, and mechanical resistance, creating a seamless, glossy, and flat surface.

Applications

- Operating Theaters
- Computer Rooms
- Electronic Device Manufacturing Facilities
- Television Studios
- Used as a conductive floor coating material in production and storage areas with high electrical charge.

Product Features and Benefits

- Extremely easy to apply.
- Ensures a highly homogeneous, glossy surface.
- Resistant to various acidic chemicals, including alkaline substances.
- Easily repairable.
- Conductive coating with hygienic, antibacterial properties.
- Creates dust-free environments.

System Components

UNEPOX PRIMER CWB 2K: Water-based Epoxy Conductive Primer

UNEPOX SLC 3K: Electrical Conductive Solvent-Free Epoxy Self-leveling Coating

Technicals

PRODUCTS	PACKAGING	CONSUMPTION	COLOR
UNEPOX PRIMER CWB 2K	13,3 kg A + 6,7 B	0,300 kg/m ²	BLACK
BAKIR ŞERİT			
UNEPOX SLC 3K	12,5 kg A +3,75 kg B + 8,75 kg C	4,8 kg/m ²	GREY

*Total Thickness ~3 mm

Surface Preparation

The concrete surface must be dry, clean, and have a strength of 25N/mm². The surface should be free of all dust, oil, and cement residues, and the surface to be applied must be dry with 75% relative humidity according to BS8204.

Application

Conductive Primer Application: To prepare the UNEPOX PRIMER CWB conductive primer, the A component is first mixed with a high-speed mechanical mixer (300-400 rpm), then the B component is added. After approximately 3 minutes of mixing, the mixture is ready for application. It is crucial to mix the two components until a homogeneous mixture is achieved. Failure to mix the components properly can create areas on the floor that do not dry correctly, leading to application issues. The product is applied to the floor using a short-pile paint roller.

Copper Strip Application

Copper strips, which are self-adhesive, are applied to the floor in 2-meter square areas on a surface where the conductive primer has been applied and cured.

Self leveling Coating Application

UNEPOX SLC 3K self-leveling solvent-free conductive coating is prepared by mixing the A component first with a high-speed mechanical mixer (300-400 rpm), followed by the addition of the B component. After mixing for an additional 3 minutes, the C component, Quartz sand, is gradually added while continuing mixing until a homogeneous mixture is achieved. Once a homogeneous mixture is ensured, the application can begin. It is essential to mix the three components until a uniform mixture is achieved. Failure to mix the components properly can lead to areas on the floor that do not dry correctly, causing application errors. The product is applied to the floor using a V-notched trowel at a consumption rate of 4,8 kg/m². Possible air bubble formation is prevented using a spiked roller. The curing time (at 25°C and 50% relative humidity) is 16-24 hours, which may vary depending on temperature.

Cleaning

All tools should be cleaned with UP 002 Thinner, and hands should be washed only with mild soap and plenty of water.

Maintenance

Our UNİCA SFC Industrial Surface Cleaner is specially formulated to clean the applied system without damaging the floor. For detailed information about the product, please contact UNİCA's technical/sales department.

Repair

In areas where repair is necessary, damaged sections should be removed, and repairs should be carried out following the steps described above.

Limitations

- The L'UNICFLOOR ESD30 Epoxy Conductive Coating system should be applied by experienced application teams.
- The application temperature range should be between 15°C-32°C.
- Drying and curing time will be slower at low temperatures and faster at high temperatures.
- The maximum relative humidity during application is approximately 85%.
- The surface temperature should be above the dew point of <3°C.
- The moisture content in the concrete floor should be <6% by weight.
- The presence of moisture on the floor during application may result in the risk of bubble formation on the surface.
- New concrete should cure for a minimum of 21-28 days.
- Before application, the surface should be cleaned of all dust, dirt, oil, and cement residues.
- If there is a risk of rain within 10-16 hours, you can continue the application. If the surface has been affected by rain, wait for the surface to dry completely before application.
- Depressions, cracks, holes, and damaged areas on the surface must be repaired and improved before application. Nevertheless, surface irregularities may appear more noticeable over the applied system due to the uneven surface structure of the concrete. This is not considered a product or application error.
- If there is a previous coating on the floor, a test application should be conducted at a suitable location on the floor to assess adhesion and other compatibility risks before starting the application.
- Products can deteriorate if exposed to open air and sunlight in their packaging. Therefore, they must be stored in their original sealed packaging in closed and cool storage areas.
- Mix the products with low-speed electric mixers. To eliminate the risk of inadequate mixing, transfer the mixed product to another empty container and remix if necessary.
- Do not add any solvent other than the one recommended by UNICA.
- The consumption rates specified in this Application document are determined under ideal floor conditions. Please consult UNICA's Technical Department for applications of different thicknesses.
- L'UNICFLOOR ESD30 is not UV resistant; hence, it is recommended for indoor use.
- Stains may occur from prolonged exposure of the floor to chemicals such as hydraulic oil, petrol, diesel, antifreeze, immediate cleaning of the floor from these chemicals should be carried out upon contact.

Health and Safety Information

Refer to the material safety data sheets of the relevant products for safe usage and disposal of products.

NOTE

The explanations made on this technical page are based on test evaluations and results of the product according to relevant standards and are intended to provide guidance to applicators. Since labor, weather conditions, construction, equipment used, and other variables affecting the results are entirely beyond our control, UNICA does not provide any explicit or implied warranties regarding this material. UNICA only guarantees that the material complies with the product specifications, and its sole responsibility to the buyer or user of this product is limited to the replacement value of the product in case of manufacturing defects. In no event shall UNICA be liable for any direct or incidental, special, or consequential injury, loss, or damage arising directly or indirectly from the material or work performed. UNICA is not responsible for any defects, alterations, or changes in the substrate on which the products are applied.