

## LIXIO PLUS®

Cement-based Terrazzo with a thickness of 20 mm to 40 mm

### Description

LIXIO® PLUS is a cement-based terrazzo type flooring with selected Italian marbles. With quick and easy application, LIXIO® PLUS allows the creation of surfaces with the traditional high aesthetic value of a classic Venetian floor, particularly suitable for commercial and residential surfaces, museums and hotels.

### Features

The LIXIO® PLUS system includes a special primer, coloured premix “COLOURMIX”, selected marble aggregates and “LIXIO-LIQUID PLUS” multifunctional liquid admixture. On site it must be integrated only with cement 42.5 N/m<sup>2</sup>. After installation, once the surface has set, it is then ground with diamond abrasive discs using the same techniques for natural marble. By combining COLOURMIX and coloured marble aggregates, the customer can create their desired colour effect. Through choosing the appropriate level of polishing, they will be able to obtain the most suitable gloss and degree of slip-resistance, up to the bush hammered finish which is also suitable for exterior surfaces. The surface can be protected with IDEALPU WB EASY water-based polyurethane sealer or with IDEAL HARD densifier treatment (or IDEAL HARD PLUS) and subsequent PETROTEX-S anti-oil impregnator.

### Fields of use

LIXIO® PLUS, in its multiple chromatic finishes, is particularly well suited for use in prestigious environments, perfectly harmonising both modern architecture and classic restoration projects.

It is particularly suitable for:

- Commercial areas
- Housing
- Hotels
- Airports and large public spaces

### Surface preparation

Based on the type and condition of the substrate (concrete, sand-cement, ceramic, self-leveling...), this must be prepared by sanding, shot blasting etc. The surface to receive the system must be clean, rough, free from contamination, be intact and perfectly level.

For floors subject to ordinary pedestrian traffic the substrate must have a compressive strength of at least 25 Mpa and meet pull off requirements of least 1.0 Mpa.

The residual humidity of the substrate must not exceed 4.0 %.

Respect any control joints that may exist in the substrate.

Apply a very thin layer of epoxy-coat mixed with 20% quartz sand 0.1-0.5 mm on the pretreated surface then roll to remove trowel marks. Broadcast quartz 1.0-2.0 mm (about 4 kg/m<sup>2</sup>) recovering about 1.5 kg/m<sup>2</sup> for reuse. Limit the work area so that broadcasting can be completed while the resin is still wet.

The entire surface must be completely covered with quartz.

Always wear spiked shoes or cleats to walk on the surface.

### Preparation on a ceramic background

1. First always sand with diamond disc.
2. Apply an 80-100 g / m<sup>2</sup> fibreglass mesh fixed with IW-BLOCKER
3. On a base with residual grouts, apply 2 coats of epoxy-coat with quartz broadcast (see above), on ceramic without any or with minimal grouts, just 1 coat is enough.

### Preparation on concrete in the absence of rising damp

1. Sand or shotblast
2. Apply a coat of epoxy-coat with quartz broadcast (see above).

### Preparation on concrete in the presence of rising damp

1. Sand or shotblast.
2. Apply a coat of BARRIERA CEM as a chemical vapour barrier.
3. Apply a coat of epoxy-coat with quartz broadcast (see above).

### Preparation on sand and cement base

1. Sand with paper 24
2. Possible consolidation (if necessary) with IDEAL WATER or alternatively with IW-BLOCKER and fibreglass mesh.
3. Apply a coat of epoxy-coat with quartz (see above).

### Preparation on self-levelling

1. Grind
2. Consolidate with IDEAL WATER
3. Apply a coat of epoxy-coat with quartz broadcast (see above).

The substrate may consist of sand/cement or concrete screeds it may also be a ceramic or natural stone floor. It must be dry, well levelled, clean and free of oil residues, paints or other polluting substances. Possible cracks or depressions must be previously repaired with anti-shrinkage epoxy mortar such as IDEAL MALTA. The surface must be ground with diamond pads to ensure adhesion. Any existing joints must be mirrored on the surface with suitable profiles.

### Other backgrounds

Contact the Ideal Work technical office.

It will be the care and responsibility of the applicator to evaluate the actual conditions of the background and the suitability of the indicated solutions on the particular construction site.

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### **Applying the material**

After 8-12 hours (at 20°, 50% RH), after having sanded and vacuumed the surface, you can apply the LIXIO® PLUS mixture with a screed followed with a bull float according to the project levels. Note very high temperatures and humidity can delay the hardening of the primer.

The day after laying the material, the anti-evaporating product will be applied evenly over the entire surface as per the relative technical datasheet. LIXIO® PLUS can be walked on from 24 hours after installation.

Thorough broadcasting you can:

- Insert larger aggregates than the thickness would generally allow.
- Insert coloured or special inlays
- achieve a greater density of the aggregates at the surface.

Inlays broadcast on the fresh surface are to be compacted with a roller.

## **Grinding-Polishing**

Wet or dry grinding can begin once the surface has completely set. In any case, not before 3-5 days from the application.

Use stone-polishing machines. The type of discs, the number of revolutions, and the number of passes must be determined according to the type of machine used (please contact the manufacturer).

After the first two grinding steps, the surface will be filled with a grout composed of Ideal Binder and water (1:1) and cement (2.0 kg/l) with the addition of oxides, coloured powders or stone dust. Subsequent steps will bring LIXIO® PLUS to the desired degree of gloss. LIXIO® PLUS can be mirror-polished and treated with PETROTEX-S impregnating water-oil repellent, or polished with a 400-grit diamond pad and protected with the water-based polyurethane sealer IDEAL PU-WB EASY (see the relative technical datasheets). The preventive treatment with IDEAL HARD or IDEAL HARD PLUS increases the surface resistance to abrasion and scratching.

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## **Background Protection**

For the protection of the surface, the following products are recommended, please refer to the relevant technical data sheets and to the Ideal Work technical office for further information.

The resin can change the hue of the surface, in some cases significantly.

- IDEALPU WB EASY polyurethane
- IDEALPU WB EASY SL water-based satin polyurethane cycle
- IDEAL FX ECO acryl water based
- PETROTEX-S impregnation against oil and water

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## **Technical data**

Technical Data

See data sheet on

<https://www.idealwork.it/download/documentazione-tecnica>

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## **Consumption**

The following composition by weight guarantees the achievement of the physical-mechanical characteristics indicated in the products technical data sheet.

Deviations from the indicated proportions or incorrect mixing can affect the performance of the product.

- COLOUR-MIX 1 part 25 kg
- Aggregate 5/8 mm 3 parts 75 kg
- Aggregates 8/12mm 3 parts 75 kg
- Cement 42.5N/m2 2 parts 50 kg
- Water 1 part 25 kg
- LIXIO-LIQUID-PLUS 1 litre per 25 kg of COLOUR-MIX

\* The proportion between the aggregates can vary.

To obtain a better mix, add the constituents to the mixer in the following order: 50% of the aggregates with 60% of the total amount of water, followed by the COLOUR-MIX and then cement. Add the LIXIO-LIQUID- PLUS, mix 3 minutes and then add the remaining 40% of water and aggregates.

Mix for a further 2-3 minutes.

It is recommended to maintain a water / cement ratio not higher than 0.48, then add 22-24 Lt of water for every 50 kg of cement.

This formulation can be varied according to the granular nature of the aggregates and construction site needs.

Consumption per 1 cm thickness per m<sup>2</sup> of surface area:

- COLOUR-MIX 2.2 kg
- 5/8 mm aggregate 6.6 kg
- 8/12mm aggregate 6.6 kg
- Cement 42.5N/m<sup>2</sup> 4.4 kg
- Lixio Liquid Plus 0.09 kg
- LIXIO-LIQUID-PLUS 1 litre per 25 kg of COLOUR-MIX

\* The proportion between the aggregates can vary.

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### **Packaging/Storage/Disposal**

- COLOURMIX is available in 25 kg bags or in 1,000/1,500 kg big bags in the following colours: Neutro (white), Tortora (dove grey), Paglia (straw), Cammello (camel), Grigio (grey), Antracite (anthracite).
- Marble aggregate, 5/8 mm (SI3) and 8/12 mm (SI4) are available in 25 kg bags or 1,000/1,500 kg big bags: Botticino, Carrara, Giallo Siena, Marron, Arabescato, Nero Ebano, Grigio Cenere.
- IW-EPOXY COAT two-component primer is available in packs of 23 kg (A + B).
- LIXIO LIQUID PLUS multifunctional admixture is available in 1-litre packs.

The products can be stored for 12 months from the date of packaging in a cool and dry place.

### **Warnings**

Avoid conditions that may encourage different setting times between areas, such as air currents and solar radiation. In the presence of underfloor heating, complete the ignition cycle beforehand and do not exceed 12°.

Any shrinkage cracks that formed in the substrate inevitably tend to be transmitted to the LIXIO® PLUS finishing layer. If the substrate is characterised by a 28 days shrinkage of more than 300 µm/m (UNI 11307 for concrete and UNI 6687 for sand and cement or mortar substrates) it is advisable to wait for its complete curing and drying and seal any cracks with epoxy-coat before Microtopping application.

Ideal Work declines all responsibility regarding the achievement of the declared performance for the system and the success of the work if it was not installed totally in accordance with these guidelines or with products not covered by them.

Ideal Work also declines all responsibility for the aesthetic aspect of the finished surface which depends on laying methods, processing times and the climatic conditions prevailing on the construction site at the time of application. The applicator must take these factors into account when applying the materials provided by the writer.

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**DISCLAIMER**

All information contained herein is based on the best and most recently available practical and laboratory testing. It is the customers responsibility to determine that the product is suitable for their chosen application. The manufacturer assumes no responsibility for the results of incorrect applications. You should always test on a small area before full scale application. This document replaces all previous versions. The data can be changed at any time. Also note that the products are intended for professional use only. Ideal Work provides training, updates and refresher courses for their regular customers on request. Anyone using these products without being enabled does so at their own risk.

- Rev. 03 dated 03.02.2022