

## ARCHITOP®

High resistance concrete-effect flooring with minimal thickness (2-4 mm)

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### **Description**

ARCHITOP® is a 2-4 mm thick concrete-effect flooring characterised by high strength and exceptional aesthetic qualities. It consists of a water-based copolymer liquid mixed with IDEAL WORK Colour Hardener which is subsequently smoothed with a power trowel until a closed surface is obtained.

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### **Features**

Architop® can be applied on new solid horizontal surfaces or over existing floors, has an extremely low thickness (2-4 mm) and a practical and easy application processing. Architop® offers the aesthetic effect of concrete flooring without the drawbacks that mass concrete installation entails. It is available in a wide range of colours. Architop® does not require expansion joints although existing joints on the substrate must be respected.

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### **Fields of Use**

- External or internal horizontal surfaces where high resistance in low thickness is required.
- Overcoating old ceramic or marble flooring.
- In renovations where there are load and/or height restrictions.
- As an alternative to the classic industrial floor for shops and offices where a more refined finish and colour scheme is desired.
- As an alternative to cast concrete flooring, in construction site situations, where faster, less disruptive work is required.
- For horizontal surfaces subject to high traffic

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### **Surface preparation**

This depends on the type and condition of the substrate (concrete, sand-cement, ceramic, self-leveling...).

The concrete substrate must have a compressive strength of at least 25 Mpa and 1.0 Mpa at pull-off and a residual humidity of not more than 4.0%.

The surface must be pretreated with sanding, shot blasting or high pressure washing and must also be clean and free from contamination, be rough and porous.

On the prepared surface, apply and spread at zero epoxy-Coat mixed with 20% of quartz 0.1-0.5 mm and then broadcast with quartz 0.7-1.2 mm (about 2.5 kg / m<sup>2</sup>).

Smooth with roller to remove trowel marks before broadcasting. 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. Always sand with diamond disc.
2. Apply a fibreglass mesh fixed with IW-BLOCKER
3. On a base with evident joints, apply 2 coats of epoxy-coat with quartz broadcast (see above), on ceramic without or with minimal joints, 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
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
3. Possible consolidation (if necessary) with IW-BLOCKER and fibreglass mesh (alternative)
4. Apply a coat of epoxy-coat with quartz broadcast (see above).

## Self-leveling preparation

5. Grind
6. Consolidate with IDEAL WATER
7. Apply a coat of epoxy-coat with quartz broadcast (see above).

## Application of the Architop® mixture

Composition of the mixture for the first coat (quantity for about 12.5 m<sup>2</sup>)

Color Hardener 25 kg + Architop Catalyst pure 6 kg

Composition of the mixture for the second coat (quantity for about 15.0 m<sup>2</sup>)

Color Hardener 25 kg + Architop Catalyst 4 kg with 2 l of water.

Mix Architop Catalyst thoroughly for at least 2 minutes, then mix it with Colour Hardener. Spread the mixture evenly with a spatula or squeegee and remove any lumps.

Apply approximately 3.5 kg of the mixture in 2 coats (2 kg the first coat, 1.5 kg second). This creates a thickness of about 3 mm, double the diameter of the aggregate (1.2 mm), ideal for the trowel to compact and close the surface in the best way by limiting porosity.

The second coat must be applied when the first is still wet but is not tacky to the touch and does not allow the movement of the aggregate. Premature application of the second coat would move the already laid material, while a delayed laying would affect its adhesion.

## **Power Trowel**

Use machines with 60 -75 -90 diameter, which can also be operated in limited environments.

Internal combustion machines are recommended. However, electric machines must have a power of at least 2.2 kW. Make sure that the blades are intact and sharp, if necessary, sharpen them with a flex tool.

Start the first pass and then the following only when the mixture will appear compact and moist but the material will not stick on touch. Touching must not move the material. Check consistency with your hand. The interval between one pass and the other will be longer at lower temperatures and with higher humidity and shorter in the reverse conditions.

The first two steps are carried out with the disc, the following with the blades which will gradually be used more inclined as the surface dries. The final step will be carried out almost at maximum inclination. For complete closure of the surface, 7-9 passes with the blades are necessary. Make cross passages.

By stopping the processing after the first step, the surface remains rough, suitable for outdoor use whilst with the subsequent steps it acquires the characteristic smooth, closed and cloudy structure.

The perimeter bands along the walls must be finished by hand trowel after passing with the power trowel. Always keep the wall on the left and proceed so that the blades, which rotate clockwise, push the material towards the wall itself.

Usually 3 passes by hand trowel are sufficient on the perimeter bands: the first pass by hand trowel is after the first pass of the disc, the second after the first pass with the blades, the third after one of the last passes when the surface starts to close and acquire the cloudy aspect.

During the previous processing step use IW-EC in order to soften the surface and create a kind of soft grout that can be easily smoothed with the trowel. IW-EC must also be used in areas where the material tends to harden, increasing friction with the blades.

Once the perimeter area has been processed, remove the impressions left with the trowel. Remain 10-20 cm from the wall, taking care not to damage the smoothed part.

Use spiked shoes or cleats to walk on the fresh floor during the second step of coating and during the first trowel passes. For the finishing phase, wear smooth footwear, preferably with a soft sponge layer under the sole.

Keep tools clean whilst working. The helicopter blades, in particular, must be cleaned after each pass.

## **Surface protection**

Once fully set, usually not earlier than 24-36 hours after application, you can proceed with the water-oil repellent impregnation protective treatment with Petrotex-s or the water based-polyurethane treatment with Ideal PU WB Easy.

See the respective data sheets for details.

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## **Technical Information**

See the safety data-sheet <https://www.idealwork.it/download/documentazione-tecnica>

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## **Consumption**

1<sup>st</sup> Coat:

Colour Hardener 2,00kg/m<sup>2</sup>

ARCHITOP® CATALYST 0,480g/m<sup>2</sup>

2<sup>nd</sup> Coat:

Colour Hardener 1,50kg/m<sup>2</sup>

ARCHITOP® CATALYST 0,240g/m<sup>2</sup>

IW-EC 7,5-10g/m<sup>2</sup>

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## **Packaging / Storage / Disposal**

Consult the data sheets for the relevant products

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## **Precautions**

Avoid conditions that may encourage differential setting times between the areas, such as air currents and solar radiation. Any underfloor heating must be turned off 5 days before the ARCHITOP® installation.

The separation between two ARCHITOP® applications is carried out with the specific blue 5 cm canvas tape. This protects the adjacent part and creates a precise guide for the subsequent cutting of the separation joint. The tape must be applied firstly before preparation with Epoxy-coat, then before applying the Architop. It will be removed before sanding once the material is completely dry.

Any shrinkage cracks that formed in the substrate inevitably tend to be transmitted to the ARCHITOP® finishing layer. If the substrate is characterized by a 28 days shrinkage of more than 300 µm / m (UNI 11307 for concrete and UNI 6687 for substrates in sand and cement or mortar) it is advisable to wait for it to fully cure and seal any cracks with Epoxy-coat before ARCHITOP® application.

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## **IMPORTANT**

The writer disclaims any responsibility for the achievement of the services declared for the system and for the success of the work if it is performed even partially in contrast with these guidelines or with products not covered by them.

The writer also declines any responsibility for the aesthetic aspect of the flooring that depends on the installation methods, the working times and the thermo-hygrometric conditions of the site that the applicator must take into account in relation to the processing of the materials supplied by the writer.

The applicator notes that Ideal work is in no way responsible for the suitability of the solution chosen in relation a) under construction conditions such as sub-fund status, thermo-hygrometric conditions or any other parameter which may affect the performance of the Ideal Work products in operation.

B) the stresses to which Ideal Work products may be put into operation.

It also notes that the indications provided by Ideal Work in its technical documentation are to be considered a necessary condition but do not in any way relieve the enforcer of the responsibilities and technical evaluations of the performer. The data can be changed at any time. Also note that the products are intended for professional use only.

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