

# SKYCONCRETE® INDOOR

## Low thickness indoor workable with power trowel

### DESCRIPTION

Skyconcrete® Indoor Isoplam® is a system composed of Skybond Isoplam®, a concentrated water-based polymeric binder, formulated to be mixed with Plam Hardening Isoplam® to obtain continuous decorative smoothing on existing internal substrates.

With a thickness of only 2 mm, it allows to renew deteriorated floors, transforming them into unique surfaces with a high aesthetic impact.

The Skyconcrete® Indoor decorative surface is the synthesis between the elegance of the cloudy effect and the versatility of the low-thickness cladding. It is the perfect solution to reproduce the characteristic nuances and industrial style of the nuvolato on existing floors, even large ones.

### FIELDS OF USE

The surfaces in Skyconcrete® Indoor Isoplam® are suitable for renovating:

- internal floors for civil and commercial use (offices, shops, showrooms, museums, restaurants, hotels, business malls...);
- tiled, sand-cement and marble flooring;
- cls concrete flooring.

### ADVANTAGES

Surfaces in Skyconcrete® Indoor Isoplam®:

- are solutions with low environmental impact and the products that compose them are formaldehyde-free;
- they are recommended for situations where there are limits in thickness and weight;
- allow to create continuous surfaces (the joints, if any, must however be respected)
- they are customizable, given the various colors available and the finishes that can be obtained;
- have excellent abrasion and impact resistance;
- they have excellent resistance to cracking;
- have good water resistance.

### TECHNICAL FEATURES

The Skyconcrete® Indoor Isoplam® product complies with UNI EN 13813: 2004.

<i>Performance characteristic</i>	<i>Test method</i>	<i>Product performance</i>
Mechanical resistance to compression	UNI EN 13892-2:2005	C60
Mechanical resistance to bending	UNI EN 13892-2:2005	F7
Mechanical resistance to wear	UNI EN 13892-4:2005	AR0,5
Dynamic impact resistance (rapid deformation)	UNI EN ISO 6272-1:2013	iR 27,2 N·m Intact sample after impact
Adhesion strength	UNI EN 13892-8:2004	B1,5

Permeability to water vapor (diffusion resistance coefficient $\mu$ ) - with RH 50% at 23 °C - with RH 93% at 23 °C	UNI EN ISO 12086:2013	216±21 116±12
Reaction to fire	UNI EN 13501-1:2009	A2 <sub>FL</sub> - s <sub>1</sub>
Thermal conductivity $\lambda$	UNI EN 12664:2002	1,35 [W/(m · K)]
VOC emission	UNI EN ISO 16000-9:2006	A+
Sound insulation	-	NPD
Sound absorption	-	NPD
Slip resistance	DIN 51130:2014	R9
<b>Resistance to severe chemical attack</b>		
Pool water: changes at the end of the exposure(24 hours)	UNI EN 14617-10	No color variation
Sodium hydroxide in solution after 8 hours	UNI EN 14617-10	C4
Hydrochloric acid in solution after 8 hours	UNI EN 14617-10	C4
Red Wine: changes at the end of exposure(24 hours)	UNI EN 14617-10	No color variation
Vinegar: changes at the end of exposure (24 hours)	UNI EN 14617-10	Darker color
Lemon: changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation
Fruit juice: changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation
Acetone: changes at the end of exposure (24 hours)	UNI EN 14617-10	Removal of the coating
Tomato sauce: changes at the end of exposure(24 hours)	UNI EN 14617-10	No color variation
Olive oil: changes at the end of exposure(24 hours)	UNI EN 14617-10	No color variation
Floor cleaner: changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation
Coffee: changes at the end of exposure(24 hours)	UNI EN 14617-10	No color variation
Black ink: changes at the end of exposure(24 hours)	UNI EN 14617-10	Darker color
Coke : changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation
Ammonia in aqueous solution 25% V / V: changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation
Ketchup: changes at the end of exposure (24 hours)	UNI EN 14617-10	No color variation

## SUBSTRATE PREPARATION

- a) On existing and mature concrete or sand-cement screeds, smooth and, if necessary, shot peening. Then apply a coat of Deco Epox W BI Isoplam® suitably diluted in order to consolidate the screed and uniform the absorption of the Skyprimer.
- b) On new concrete or sand-cement substrates, take care to leave the surface rough and porous in order to allow better adhesion of the primer. Let the surface cure for at least 28 days before proceeding with the application. Then apply a coat of Deco Epox W BI Isoplam® appropriately diluted (the recommended dilution ratio is: A:B:WATER=1: 2:16) in order to consolidate the screed and uniform the absorption of the Skyprimer.
- c) On existing ceramic surfaces (tiles), proceed with smoothing.
- d) Repair parts that should be damaged and deteriorated by using Ipm Epoxy Kit Isoplam®. Any cracks, holes, shallow concavities, any splinters and joints must be previously filled. Remove all residues of dirt, oil, grease, paint, etc.
- e) In the presence of rising damp, apply Vapor Barrier Isoplam®, three-component epoxy (in which to drown the Isoplam® Fiberglass Mesh).

In all the above cases, apply two-component epoxy Skyprimer Isoplam® to be dusted with Isoplam® quartz (washed and dried in grain size 0,6-1,2).

If the substrate shows cracks, it is necessary to apply a further coat of Skyprimer interposing the Isoplam® glass fiber mesh. For the preparation of the substrate, please refer in any case to the technical data sheet of the Skyprimer.

In the presence of an underfloor heating system, it is essential that testing is carried out before creating the Skyconcrete coating and that it is not turned on before the floor has completely matured. It is also important that the commissioning of the system takes place with gradual temperatures in order to avoid unsightly cracks and cracks.

## APPLICATION

The temperatures of use must be between 10°C and 30°C. Do not use in extreme temperatures. Skybond Isoplam® must be kept in a cool place. It is important to mix the product thoroughly a few minutes before use. The Pot Life of the Skybond + Plam Hardening blend is approximately 30 minutes at 20°C.

### Application of the first coat.

Indicative dosage: 6 Lt of Skybond (possibly, depending on the temperature, previously diluted with 1 Lt of water)+25 Kg of Plam Hardening = yield about 20 sq. m.

Mix thoroughly Skybond if necessary diluted and then slowly add Plam Hardening, mixing for a couple of minutes to get rid of lumps.

Within 30 minutes (at an average temperature of about 20°C) apply the compound smoothing it evenly on the surface with Isoplam® flexible steel trowel until reaching a maximum thickness of 1,5 mm. To even out the surface, it can be smoothed later with Isoplam® Squeegee.

### Application of the second coat.

After 15-30 minutes, depending on the ambient temperatures and in any case before the first coat is completely dry, apply the second coat.

Indicative dosage: 6 Lt of Skybond (possibly, depending on the temperature, previously diluted with 1 Lt of water)+25 Kg of Plam Hardening = yield about 20 sq. m.

Thoroughly mix any diluted Skybond and then slowly add Plam Hardening, mixing for a couple of minutes to remove lumps.

Take care to walk on the surface with spiked shoes. Spread the mixture with Isoplam® trowel or with Isoplam® Squeegee.

As soon as the surface begins to dry, continue to float manually or with a mechanical trowel.

During processing, spray E-Red Isoplam®, evaporation retardant, on the surface.

Wait a few minutes between one coat and the next (do not insist on the same spot to avoid excessive heating of the surface which would cause micro-cracks) and continue smoothing the surface until the desired degree of smoothing is achieved. For parts close to walls or columns, i.e. where the mechanical trowel cannot work, the surface will be troweled by hand.

All equipment must be kept constantly clean with water.

The next day, proceed with sanding with a single disc machine with an abrasive disc with a 120 grit. Proceed with any eventual cutting of the joints, if already present on the support or if deemed necessary in order to avoid the formation of cracks.

Notes: The finish obtained will show more or less evident signs of the metal left by the helicopter blades during machining: in the lighter colors of Plam Hardening this phenomenon will stand out more than in the darker colors, making the flooring take on the shades of steel. The parts close to walls or vertical constraints of any kind, given the different processing, will have a slightly different degree of finish from the rest of the surface. More or less opaque areas depend on the different degree of surface processing and must be understood and accepted. The diversity of workmanship can create, due to the different refraction of light on the surface, a perception of different, cloudy coloring, which is a value.

## CONSUMPTION

First coat:

Skybond: about 0,3 Lt/m<sup>2</sup> (to be diluted with a little clean water if necessary)

Plam Hardening: about 1,25 Kg/sq. m.

Second coat:

Skybond: about 0,3 Lt/m<sup>2</sup> (to be diluted possibly with a little clean water)

Plam Hardening: about 1,25 kg/sq. m.

## COLORS

The color is determined by Plam Hardening which is available in the colors available in the Isoplam® Color Chart.

The finish obtained will have more or less evident signs of the metal left by the helicopter paddles during machining: in the light colors of Plam Hardening this phenomenon will stand out more than in the dark colors, making the flooring take on the shades of steel.

Note: Individual jobs must be performed with a single production batch. Otherwise Isoplam Srl is not liable for any discrepancies in color.

## RIPENING

The surface made of Skyconcrete® Indoor Isoplam® can be walked on at least after 24 hours. Being a cement-based product, the package made of Skyconcrete® requires a curing time of about 28 days: therefore, be very careful, during this period, not to subject the surface to significant stresses that could ruin it.

## RESIN COATING

It is recommended to apply a protective resin after 4-5 days from the realization.

The type of product to be applied will be chosen based on the intended use of the surface.

Isoplam® has a wide range of products for the protection of Skyconcrete® surfaces. It is recommended to always contact the Isoplam® Technical Department to choose the most suitable product.

Cleaning of the flooring cannot be carried out with aggressive products. Isoplam Srl provides specific products for the maintenance and cleaning of its systems. Dirt stains (especially oily and dyes such as coffee, wine, etc.) should be removed as soon as possible to prevent them from being absorbed by the floor. Depending on the use of the flooring, it is possible to reapply, after some time, a coat of protective wax. It is recommended not to place carpets or other objects that we have contained in rubber on the surface, for example doormats, rubber mats of all kinds (including colored ones such as puzzles for children): this material releases oils over time that stain the floor. It is recommended that you follow the instructions in the maintenance booklet available on the website: [www.isoplam.it](http://www.isoplam.it)

## PACKAGING

Skybond is available in 18 Lt plastic pots.

Plam Hardening is available in 25 Kg plastic pots.



## STORAGE, EXPIRY, WARRANTY AND SAFETY

Store in a cool and safe place at temperatures between 10 ° C and 30 ° C.  
Keep containers tightly sealed.

The shelf life of Skybond and Plam Hardening is 12 months, protected from moisture and in the original sealed packaging.

The packaging date is shown on the package (the lot number indicates, in sequence, year/week/day). Consult the Safety Data Sheet of the products before use.

### **IMPORTANT:**

The products of the Skyconcrete® Indoor Isoplam® System are intended for the use as indicated above.

Adding any other product will impair the final result.

All information contained herein is based on the best practical experiences and laboratory research. It is the customer's responsibility to determine whether the product is suitable for the intended application. The manufacturer declines all responsibility on the results due to incorrect application of its products. The product shall always be tested on a small area before full scale application. This data sheet replaces all previous data sheets.

ISOPLAM reserves the right to change the data on the data sheet at any time. Skyconcrete® Indoor Isoplam® is intended for professional use only.

ISOPLAM provides frequent and on demand trainings for its customers. The use of ISOPLAM products without receiving the proper certification will be at the customer's own risk.