

SKYCONCRETE[®]

Low thickness surface workable with power trowel machine

DESCRIPTION

Skyconcrete[®] Isoplam[®] is a system composed of Skybond Isoplam[®], a water-based concentrated polymeric binder, formulated to be mixed with Plam Hardening Isoplam[®] to obtain continuous decorative overlays on existing supports.

With just 2-4 mm thickness it allows to renovate deteriorated floors transforming them into unique surfaces with a high aesthetic impact.

FILEDS OF USE

Isoplam[®] Skyconcrete[™] surfaces are suitable to renew:

- both internal and external floors;
- floors made of tiles, sand-cement, marble;
- concrete floors.

ADVANTAGES

Isoplam[®] Skyconcrete[™]:

- is a low environmental impact solution (choosing the water-based final protective);
- is recommended for those situations where a low thickness and light weight are required;
- allows to create continuous surfaces (joints, if any, should nevertheless be respected);
- is customizable, given the wide range of colors available and of finishes that can be achieved;
- has an excellent resistance to abrasion;
- has an excellent resistance to cracking and thus to freeze-thaw cycles;
- has a good water resistance.

SUPPORT PREPARATION

- On already existing and mature concrete or sand-cement screeds, proceed with surface sanding and, if necessary, shot peening.
- On new supports in concrete or sand-cement, make sure to leave a rough and porous surface in order to allow a better adhesion of the primer. Wait for at least 28 days so that the concrete can mature properly before proceeding with the application.
- On existing ceramic surfaces (tiles), proceed with sanding.
- Repair all the areas that are damaged and deteriorated using the Isoplam[®] IPM Epoxy Kit. Any crack, hole, shallow concavity, splinter, coupling and joint should first be filled. Clean every spot of dirt, oil, grease, paint, etc.
- In presence of rising damp, apply Vapor Barrier Isoplam[®], three-component epoxy (in which to drown the Isoplam[®] Fiberglass mesh).

In all the above-mentioned cases, apply then the bi-component epoxy Isoplam[®] Skyprimer, to be sprinkled with Isoplam[®] Quartz (washed and dried, 0.6-1.2 grain).

APPLICATION

The working temperatures range should be between 10°C and 30°C. Do not use in extreme temperatures or in windy conditions.

Isoplam® Skybond should be stored in a cool place. It's important to thoroughly mix the product a few minutes before use.

Application of the first coat.

Indicative dosage: 6 Lt Skybond + 25 Kg Plam Hardening = yield approx 15 m².

Mix thoroughly Skybond, then add slowly Plam Hardening mixing for a few minutes to remove every clump.

Within 20-25 minutes (at average temperature of about 20°C) apply the mixture evenly over the surface with an Isoplam® Steel trowel or an Isoplam® Squeegee up to a maximum thickness of 1,5 mm.

Application of the second coat.

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

Indicative dosage: 6 Lt of Skybond (if necessary, depending on the temperatures, previously dilute it with 1 liter of water) + 25 Kg of Plam Hardening = yield approx 15 m²

Mix thoroughly the Skybond, possibly diluted, and then add slowly Plam Hardening mixing for a few minutes to remove every clump.

Be sure to walk on the surface with spiked shoes. Spread the mixture with an Isoplam® Hand Trowel or Isoplam® Squeegee.

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

During this process, it is necessary to spray the surface with the evaporation retardant Isoplam® E-Red.

Wait a few minutes between one passage and the next (do not insist on the same point).

The day after, proceed sanding with a monobrush, equipped with a sanding disc with grain 100.

All the equipment must be constantly kept clean (always keep clean water near).

CONSUMPTION

First coat:

Skybond: approx 0,4 Lt/m²

Plam Hardening: between 1,5 and 1,9 Kg/m²

Second coat:

Skybond: approx 0,4 Lt/m² (to be possibly diluted with clean water)

Plam Hardening: between 1,5 and 1,9 Kg/m²

TECHNICAL INFORMATION

<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 flexion	UNI EN 13892-2:2005	F7
Mechanical resistance to wear	UNI EN 13892-4:2005	AR2
Reaction to fire	UNI EN 13501-1:2009	A2 _{FL} - s ₁
Release of corrosive substances	-	NPD
Water permeability	UNI EN 1062-3:2008	0,088 Kg / m ² .√h

Grip strength	UNI EN 13892-8:2004	B1,5
Heat resistance	ASTM E1530-11	0,58 [W/(m · K)]
Resistance to severe chemical attacks		
Water for swimming pool:		
- hardness (UNI EN ISO 868 Shore D) at 28 days		59
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Potassium hydroxide in aqueous solution (30g/Lt):		
- hardness (UNI EN ISO 868 Shore D) at 28 days		58
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Ammonium chloride in aqueous solution (100 g/Lt):		
- hardness (UNI EN ISO 868 Shore D) at 28 days		60
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Sodium hydroxide in aqueous solution (10%):		
- hardness (UNI EN ISO 868 Shore D) at 28 days		59
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Hydrochloric acid in aqueous solution (3%)		
- hardness (UNI EN ISO 868 Shore D) at 28 days		59
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Acetic acid in aqueous solution (5%)		
- hardness (UNI EN ISO 868 Shore D) at 28 days		56
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Oleic acid (100%)		
- hardness (UNI EN ISO 868 Shore D) at 28 days		54
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
Sodium hydroxide (20%)		
- hardness (UNI EN ISO 868 Shore D) at 28 days		58
- alterations at the end of the exposure	UNI EN 13529	None
- resistance to liquids (change in appearance after 30 days at 23±2°C)	UNI EN 13529 UNI EN ISO 2812-1	None
VOC Emission	UNI EN ISO 16000-9:2006	A
Slip resistance		
- on raw system	DIN 51130:2014	R12
- on smooth system		R11
Water vapor permeability	UNI EN ISO 7783:2012	1,12·10 ⁻⁸ kg/m·h·Pa
Pot Life of the mixture powder+ binder		About 30 minutes at 20°C

COLORS

The coloration is determined by Plam Hardening which is available in 35 colors according to our Isoplam® Color chart.

MATURATION

An Isoplam® Skyconcrete™ can be walked on after at least 24 hours.

Being a cement-based product, Skyconcrete™ system requires about 28 days of maturation: so be careful, during this period, not to submit the surface to important stresses that could ruin it.

RESIN APPLICATION

It is recommended to apply a protective resin 4-5 days after the realization.
The type of product to be applied will be chosen according to the use of the surface and to its location.
Isoplam[®] has a wide range of products for Skyconcrete[™] protection. It is recommended to always contact our technicians to choose the most suitable product.

PACKAGING

Skybond is available in plastic buckets of 20 Lt.
Plam Hardening is available in plastic buckets of 25 Kg.

STORAGE, EXPIRY, WARRANTY AND SAFETY

Store in a cool and safe place, with temperatures between +10°C and +30°C.
Keep containers tightly sealed.
If properly stored, Skybond and Plam Hardening keep for 12 months in its original sealed packages.
The packaging date is shown on the package (the lot number indicates, in sequence, year / week / day).
Consult the Safety Data Sheet of these products before use.

Each individual work must be completed using a single production lot, otherwise Isoplam Srl is not responsible for differences in color.

IMPORTANT:

The products of the Isoplam[®] Skyconcrete[™] 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. The products of the Isoplam[®] Skyconcrete[™] 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.