

PLAM STAMPABLE

Stamped concrete

DESCRIPTION

Plam Stampable Isoplam[®] is a system that allows you to create external floors in monolithic stamped concrete, customizable with decorative effects of great value. The concrete is stamped with special rubber molds, which give life to decorations in imitation stone, bricks, wood, tiles, rosettes and Greek frets. The final result is extremely realistic and of great aesthetic impact: the beauty of traditional coverings is perfectly reproduced, with superior performance and a very high possibility of chromatic customization.

Plam Stampable is realized thanks to the use of:

- Plam Hardening Isoplam[®]: ready-to-use pre-mixed powder product composed of special formulations of quartz silica, Portland cement, selected iron oxides resistant to ultraviolet rays and atmospheric agents and other additives. Easily incorporated into fresh concrete surfaces.
- Plam Rele Isoplam[®]: premix of micronized, non-stick, water-repellent, coloring and release agents. It is distributed on the surface already treated with Plam Hardening to allow the detachment of the matrix easily, but also to give colored shades to the flooring, highlighting the desired mold texture.
- Isoplam[®] molds: rubber molds used together with the rubber tamper to print the still fresh concrete and imprint the desired design.

FIELDS OF USE

Plam Stampable Isoplam[®] is a solution widely used in all those places where aesthetically appreciable but highly resistant concrete floors are required: sidewalks, streets, squares, avenues, pool edges, ramps, parking lots, show rooms...

TECHNICAL FEATURES

The Plam Stampable Isoplam[®] system complies with UNI EN 13813: 2004.

<i>Performance characteristic</i>	<i>Test method</i>	<i>Product performance</i>
Reaction to fire	-	A1
Release of corrosive substances	-	NPD
Permeability to water	-	NPD
Permeability to water vapor	-	NPD
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	AR2
Sound insulation	-	NPD
Sound absorption	-	NPD
Heat resistance	ASTM E1530-11	1,2 [W/(m · K)]
Chemical resistance	-	NPD

VOC Emissions	UNI EN ISO 16000-9:2006	A+
Adhesion force	UNI EN 13892-8:2004	2,79 N/mm ²
Slip Resistance	DIN 51130:2014	R11

PREPARATION OF THE SUPPORT

The substrate must be prepared according to the UNI 11146 standard, compacting and correctly establishing the casting levels.

It is recommended to apply Isoplam® Nylon as a vapor barrier and Isoplam® Non-Woven Fabric to avoid rising damp, rapid drying and cracking. Apply the Isoplam® Expanded polyethylene insulating strip.

Properly reinforce the concrete according to the regulations, using Isoplam® PVC Spacers for the correct positioning of the steel mesh, or using Isoplam® Structural Fibers.

It is recommended to properly choose the type of concrete mix which must comply with the UNI EN 206 standard for floors exposed to freezing in the absence of de-icing salts. It is recommended to rely, whenever possible, on trusted concrete plants that use selected cements and aggregates to avoid the appearance (even after years) of efflorescence. These manifest themselves in the form of whitish spots when the salts dissolved in the concrete rise to the surface together with the water that contains them, or in the presence of high humidity (even after the construction of the flooring) with the formation of calcium carbonate.

The resistance class must not be less than Rck 30 N/mm² (C25/30). The dosage of cement must not be less than 350 kg/mc (cement type 325 in summer and 425 in winter). An aggregate composed of fine 15-18 mm aggregate, washed and non-reactive, is recommended to avoid pop out phenomena. The minimum average thickness must not be less than 10 cm for pedestrian areas, 15 cm for areas with light vehicular traffic.

In case of mechanized laying of concrete using Isoplam® Magic Screed Vibrating Screed, the appropriate consistency class will be S2-S3. In case of manual laying of concrete with Isoplam® aluminum screed, the appropriate consistency class will be S4. In order not to compromise the final resistance of the flooring, it is advisable not to exceed the water in the concrete mix. To this end, we recommend the use of seasonal super-plasticizing additives such as Hotpav Isoplam® or Coldpav Isoplam®.

It is recommended to use Plam Fibre Isoplam®, polypropylene fibers, in the concrete mix, to limit the formation of micro cracks caused by plastic shrinkage of the concrete. Choose concrete plants close to the construction site. It is important that the concrete destined for the same site is always prepared by the same plant with the same dosages, in order to avoid differences in color tones between one casting and another.

Make sure that no rain is expected for 24 hours after casting and that temperatures are between +5 and +30 ° C.

APPLICATION OF THE HARDENER

Once the concrete has been leveled respecting the minimum slope of 2% and smoothed with Isoplam® Magnesium Board, proceed with the uniform application of Plam Hardening Isoplam®, sprinkling it in two or three crossed coats on the fresh concrete. Between one coat and the next, the product must be smoothed using Isoplam® Steel Board and Isoplam® Equipment for finishing the edges and creating joints.

Do not use Plam Hardening Isoplam® to cover areas with excess water: this procedure could cause superficial discarding phenomena.

APPLICATION OF THE RELEASE AGENT, MOLDING AND WASHING

Immediately apply Isoplam® Plam Rele evenly with the special Isoplam® Powder release agent applicator on the Plam Hardening already incorporated into the concrete in order to avoid too sudden drying of the surface.

It is advisable to apply a light layer of Plam Rele also on the molds, in case they are new.

Wait for the surface to be walked on (you must not sink) and properly lay the Isoplam® molds. Climb onto the molds with Isoplam® Shoes for walking on concrete and beat gently and evenly with the special Isoplam® Rubber tamper for stamped concrete on the still fresh concrete, in order to obtain the design transferred to the surface. Remove the molds.

Approximately 48 hours after molding (depending on the season: in cold periods even after 4 days) gently remove the excess Plam Rele with a pressure washer. To avoid an excessive dispersion of dust in the air

during washing, we recommend the prior application of Plam Dust Cleaner Isoplam®. We do not recommend the application of Plam Rele in the presence of strong wind which would increase its dispersion in the air and consumption.

During the washing phase it is recommended to completely remove all excess Plam Rele using a monobrush or mosquito with a white sponge disc. Excess Plam Rele on the washed surface could cause detachment of the resin. As an alternative to Plam Rele, to avoid the creation of dust, it is possible to use Plam Liquid Rele Isoplam®, a transparent liquid release agent to be applied by spray on the molds: in this case, however, the second color shade would not be highlighted.

Wash the molds with Isoplam® Plam Stamp Cleaner and water.

Pay attention that, after washing, the parts of the flooring in the shade, compared to those in the sun, could be more charged with the release agent color, as well as have a more marked texture: this is due to the fact that in the shaded parts the concrete is cooler than in the sun. It is possible to use Isoplam® Plam Apriori to remove excess release agent: consult the technical sheet for this purpose.

RESIN COATING

Depending on the temperatures and the chosen protective agent, after at least 2 days it is recommended to apply at least two coats of resin: consult the Isoplam® Technical Department to identify the most suitable product.

CONSUMPTION

The consumption of Plam Hardening Isoplam® varies according to the color chosen and the intended use of the flooring: the lighter the color chosen and the heavier the load that the flooring will have to bear, the greater the quantity of Plam Hardening to be applied. The recommended dosage ranges from 3 kg to 5 kg per square meter (with a pot you make about 6,5 sq. m.). Never exceed the dosage of 6 kg per square meter, in order to avoid discarding. It is recommended to mix the product well.

The consumption of Plam Rele Isoplam® is around 150-160 gr/sq. m (with a pot about 90 sq. m).

PACKAGING AND COLORS

Plam Hardening Isoplam® is in plastic pots of kg. 25 and is available in the colors as per Isoplam® Color Chart.

Plam Rele Isoplam® is available in plastic pots of kg 13,6 and is available in colors as per Isoplam® Color Chart.

Isoplam® Molds, Frets and Rosettes are available in different textures that can be consulted in the Isoplam® Texture mats and stencil catalogue.

STORAGE, EXPIRY, WARRANTY AND SECURITY

Plam Hardening and Plam Rele Isoplam® must be stored in a dry place, at temperatures no lower than +5°C.

If properly stored, the products are guaranteed for 12 months in the original packaging.

The packaging date is shown on the package (the lot number indicates, in sequence, year/week/day).

Isoplam® does not guarantee its products if used mixed or superimposed on other similar products.

The quality of the raw materials used and the Isoplam® production system is ensured by the ISO 9001:2008 quality system.

The products are intended for professional use only: consult the safety data sheet of the products before using them.

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

IMPORTANT:

The product PLAM STAMPABLE is 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. PLAM STAMPABLE 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.