

DECO NUVOLATO

Powder hardener for decorative surfaces

DESCRIPTION

Deco Nuvolato Isoplam® is a system that allows you to create continuous floors in nuvolato decorative concrete that appear shaded, with darker color variations that stand out against a lighter background, as if they were clouds.

This decorative solution is based on the use of Deco Nuvolato Isoplam®, a ready-to-use premixed powder tank, composed of special formulations of spheroidal quartz, Portland cement, selected Bayer iron oxides resistant to ultraviolet rays and atmospheric agents and other special additives. Deco Nuvolato is easily incorporated into fresh concrete surfaces for the realization of power trowel worked floors with a “cloudy” finish suitable for indoor use, where the resistance of an industrial floor or an industrial look, without joints, is required.

FIELDS OF USE

Deco Nuvolato Isoplam® is very appreciated in all those places where strong and nice concrete floors are required: residential areas, showrooms, shops, offices, warehouses, storage areas, production areas, shopping and logistics centres, exhibition centres, exhibition halls and in all public spaces.

Isoplam® clouded concrete floors can be built on underfloor heating or cooling systems. Deco Nuvolato flooring in Light Gray and Medium Gray are also suitable for being an excellent base for acid stains with Plam Acid Isoplam®.

TECHNICAL & PERFORMANCE DATA

The product Deco Nuvolato Isoplam® conforms to UNI EN 13813:2004 standards.

| <i>Performance feature</i> | <i>Test Method</i> | <i>Product performance</i> |
|---------------------------------|-------------------------|----------------------------|
| Reaction to fire | - | A1 |
| Corrosive substances release | - | NPD |
| Water permeability | - | NPD |
| Water vapor permeability | - | NPD |
| Mechanical compression strength | UNI EN 13892-2:2005 | C60 |
| Mechanical bending strength | UNI EN 13892-2:2005 | F7 |
| Mechanical resistance to wear | UNI EN 13892-4:2005 | AR2 |
| Sound insulation | - | NPD |
| Sound absorption | - | NPD |
| Thermal resistance | ASTM E1530-11 | 1,2 [W/(m · K)] |
| Chemical resistance | - | NPD |
| VOC Emission | UNI EN ISO 16000-9:2006 | A+ |

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|-------------------------------|---------------------|--|
| Slipping resistance | DIN 51130:2014 | R9 (residential): normal grip, ideal for entrance areas and stairs with access from the outside, shops, clinics, canteens and restaurants, laundry laboratories and places with a strong presence of water. R10 (residential): medium grip, suitable for bathrooms and showers, small store kitchens, garage. R11 (commercial): high adhesion, ideal for premises for food production, medium-sized kitchens of exercises and work environments with a strong presence of water. |
| Adhesion force | UNI EN 13892-8:2004 | 2,79 N/mm ² |
| SRI (Solar Reflectance Index) | ASTM E1980 | >33 relating to Deco Nuvolato white |

SUPPORT PREPARATION

The substrate must be prepared according to UNI 11146 standards, compacting and properly setting the concrete cast levels.

Avoid the passage of pipes over the substrate that reduce the thickness at that point of the subsequent concrete casting and which would thus lead to the possibility of cracking the flooring.

We suggest you the laying of Nylon Isoplam® as vapor barrier and of Nonwoven Isoplam® to avoid rising damp, quick drying and cracks. Apply Isoplam® Insulating strips.

Reinforce adequately the concrete according to legislation, using the Spacers Isoplam® for the correct positioning of the steel reinforcement, or by using the Structural Fibers Isoplam®.

It is recommended to properly choose the type of concrete mix that must comply with the UNI EN 206 for floors exposed to freezing in absence of deicing salts.

It is recommended to rely, when possible, on trusted concrete plants that use selected cement and aggregates, in order to avoid the appearance (even after years) of efflorescences. These arise in the form of whitish spots, either when the salts dissolved in the concrete rise to the surface together with the water, or in the presence of high humidity (also subsequent to the realization of the pavement) with the formation of calcium carbonate.

The strength class must not be less than Rck 30 N/mm² (C25 / 30). The cement dosage should not be less than 350 kg/m³ (cement type 325 in summer and 425 in winter). It is recommended to use an inert aggregate not less than 15-18 mm in size (depending on the intended use), washed and non-reactive to avoid pop-out phenomena.

The average minimum thickness must not be less than 8 cm for pedestrian areas, 12 cm for areas with light vehicular traffic.

In the case of the mechanized concrete laying through the use of the vibrating Magic Screed Isoplam®, the proper consistency class will be S2-S3. In the case of manual concrete laying with an Aluminum manual screed Isoplam®, the proper consistency class will be S4.

In order not to compromise the final resistance of the floor, it is recommended not to exceed with the water in the concrete mixture. To this end, we suggest you the use of additives, such as seasonal superplasticizers Hotpav Isoplam® or Coldpav Isoplam®.

We suggest you the use of Polypropylene Fibers Isoplam® in the concrete mixture, in order to limit the formation of micro cracks caused by the plastic shrinkage of the concrete.

Choose concrete plants close to the construction site. It is important that, for each construction site, the concrete is always prepared from the same plant with the same dosages, in order to avoid different color shades between one casting and the other.

APPLICATION & MATURATION

Once the concrete has been levelled respecting the minimum slope of 1% (in the case of external floors) and once the water has disappeared from the surface, apply Deco Nuvolato Isoplam® by dusting it evenly in two crossed layers (2/3 of the product for the first coat, the remaining 1/3 for the second coat) and proceed with the roughing and the subsequent smoothing using a Power trowel Isoplam®.

Do not use Deco Nuvolato Isoplam® to cover areas with excess water: this procedure may cause surface peeling phenomena.

Avoid wetting the surface during processing: this would cause a cortical weakening. Instead, use E-Red Isoplam®, processing adjuvant and anti-evaporation: spray it on the surface during the several steps of the trowel machine.

If you are particularly fond of Deco Nuvolato bright colors, we recommend using the special Nylon Finishing palette Isoplam® to avoid the classic burns due to the use of steel palletes.

It is suggested to keep the surface thoroughly and continuously wet for about a week after the hardening. As an alternative, we suggest to apply Antieaporante Isoplam® curing compound which forms a film capable of keeping the concrete moisture during the early phases of hydration. This allows to optimize the mechanical strength and to reduce the risk of cracks formation.

Proceed with the joints cutting as soon as possible (generally the day after casting) and wash the flooring in order to remove traces of grout and oily substances produced by the joint cutter. Then place Filtene Isoplam® and, once the flooring is completely dried, seal with Plam Sigil or Isoplam® Colored Silicone a dye that approximates the color of the flooring.

Depending on the intended use of the floor, contact the Technical Office Isoplam® for the protective treatments to be applied subsequently.

Notes:

-In the presence of a floor heating or cooling system, it is essential that the test is carried out before creating the flooring and that it is not switched on until at least 28 days have elapsed since the casting. It is also important that the system is put into operation with gradual temperatures in order to avoid the formation of unsightly pitting and cracks

-The concrete reaches the characteristic strength after 28 days. It is therefore advisable to adjust the opening to heavy traffic accordingly.

-All companies that operate for the most disparate reasons above the concrete floor must avoid soiling the floor with oils, greases, paints, glues, adhesives (including that of paper tapes), solvents, diesel and gasoline, silicones, since, if a resin is provided when the concrete has matured, this will highlight the point of contact with the aforementioned pollutants. Similarly, nothing should be deposited on the concrete floor during maturation, not even for a few days, as the floor would not be allowed to mature uniformly, causing unrepairable aesthetic damage.

- Even after the application of the transparent protector, it is recommended not to let carpets or other objects that we have contained in rubber settle on the surface, for example doormats, rubber mats of all kinds: this material releases oils that stain the floor over time.

CONSUMPTION

Deco Nuvolato Isoplam® consumption depends on the color chosen and on the floor's destination use : brighter the color chosen and heavier the load that the floor will have to endure, greater the amount of Deco Nuvolato Isoplam® to be applied.

The recommended dosage ranges from 4 kg to 6 kg per square meter.

Do not exceed the dosage of 6 kg per square meter to avoid the peeling effect.

PACKAGING & COLORATIONS

Deco Nuvolato Isoplam® is available in paper-nylon double-layer bags of 25 kg and is available in 35 colors, as indicated in the Color chart Isoplam®.

Upon request and for a minimum quantity of 1200 kg you can order customized colors.

STORAGE, EXPIRY, WARRANTIES AND SAFETY

Deco Nuvolato Isoplam® should be stored in a dry place at temperatures not lower than +5°C in its original pot.

If properly preserved in the original packaging, the product is guaranteed for 6 months from the date on the packaging.

Isoplam® does not guarantee its products when they are used mixed or overlapped with other similar ones.

The quality of the raw materials used and Isoplam® production system is ensured by the ISO 9001: 2015 quality system.

Check the Safety Data Sheet before use.

The individual work must be completed with a single production lot, otherwise Isoplam Srl will not be responsible for differences in color.

IMPORTANT:

The product DECO NUVOLATO 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. DECO NUVOLATO 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.