

PAVILUX BASALTUM D9

DESCRIPTION

Pavilux Basaltum D9 Isoplam® is a ready-to-use mixture based on volcanic basalt (Mohs hardness >7), corundum (Mohs hardness >9), quartz aggregate (Mohs hardness >7) and Portland Cement Cem II/A-LL – 42.5 R with low CR +6 content as per directive 2003/53/EC, implemented in Italy with the D. Ministerial of 10.05.2004, to be applied by dusting on fresh concrete to protect against wear civil and industrial pavements that require a very high resistance to abrasion.

FIELDS OF USE

- New flooring in residential, commercial and industrial buildings
- Schools, hospitals
- Parking, garages and basements
- Pitches, terraces and sidewalks
- Industries, workshops
- Logistics warehouses and warehouses subjected to heavy traffic. It supports the transit of trolleys with rubber wheels (4 – 5 Kg/m²) and vulkollan with dosages of at least 6 – 7 Kg/m².

Not to be used: in all chemical and food industries where the use of acidic or aggressive cement substances is envisaged. In the presence of such conditions, consult the Isoplam® Technical Office to provide the most suitable surface treatment

ADVANTAGES

- An armored floor with Pavilux Basaltum D9 lasts much longer than a floor made of “wrought concrete”: the surface mechanical strengths of the concrete are increased due to the high concentration of Corundum and Basalt and the reduction in the water/cement ratio caused by the dusting.
- Pavilux Basaltum D9 reduces pavement dust formation due to the high quartz, basalt and corundum concentrations of the surface armor. This reduces the penetration of oils and fats by facilitating their removal and cleaning.
- Pavilux Basaltum D9 armor is more resistant to weathering, freezing and thawing, and defrosting salt attack than a standard concrete surface and is therefore ideal for sidewalks, yards, ramps, and parking lots.

TECHNICAL FEATURES

The product Pavilux Basaltum D9 Isoplam® complies with UNI EN 13813:2004.

Product shape	Dust ready to use
Compression strenght	> di 40 N/mm ² a 3 gg > di 75 N/mm ² a 28 gg
Resistance to bending	> 7 N/mm ² a 3 gg > 10 N/mm ² a 28 gg
BCA wear resistance	AR 1
Adhesion Force	2,79 N/mm ²
Reaction to fire	A1
Thermal resistance	1,2 [W/(m · K)]
Elastic modulus	35000 MPa
PTV slip resistance on dry on wet	66 45
Slip Resistance Alert STV on dry on wet	120 85
Slip resistance DIN 51130 on dry on wet	R13 R11
Carbonation resistance	dk<cls rif.
COV emissions	A+
Capillary absorption	0,20 Kg·h ^{0,5} /m ²
Mohs hardness of aggregates: basalt corundum German quartz	>7 >9 >7
SRI (solar Reflectance Index)	>49 test performed on cemento color

SURFACE PREPARATION

The subgrade must be prepared according to UNI 11146 regulations, properly compacting and establishing the casting levels.

The application of Nylon Isoplam® as a vapor barrier and Non-Woven Fabric Isoplam® is recommended to avoid rising moisture, rapid drying and quibbling. Apply the Isoplam® Perimeter Band.

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

It is recommended to adequately choose the type of concrete mix that must comply with the UNI EN 206 standard for pavements exposed to frost in the absence of de-icing salts.

It is recommended to rely, when 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 CLS rise towards the surface together with the water containing them, or in the presence of high humidity (even after the pavement has been created) with the formation of calcium carbonate.

The strength class shall not be less than Rck 30 N/mm² (C25/30). The cement dosage must not be less than 350 kg/mc (type 325 cement in the summer period and 425 in the winter period). An aggregate composed of inert material with dimensions not less than 15 - 18 mm and not more than 30 mm (depending on the intended use), washed and non-reactive is recommended to avoid pop-out phenomena.

The average minimum thickness must not be less than 10 cm for pedestrian zones, 15 cm for light vehicle traffic zones.

In case of mechanized concrete application using Vibrating Screed Magic Screed Isoplam® the appropriate consistency class will be S2-S3. In the case of manual application of concrete with Isoplam® aluminum Screed, the appropriate consistency class will be S4.

To avoid compromising the final strength of the flooring, it is recommended not to overdo it with water in the CLS mix. To this end, the use of seasonal superplasticizing additives such as Hotpav Isoplam® or Coldpav Isoplam® is recommended.

The use of Isoplam® Polypropylene Fibers in CLS mix is recommended to limit the formation of micro cracks caused by plastic shrinkage of the concrete.

Choose concrete plants near the construction site. It is important that the concrete intended for the same construction 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.

APPLICATION AND RIPENING

Once the concrete has been screeded respecting the minimum slope of '1% (in the case of external pavements) and once the water on the surface has disappeared, apply Pavilux Basaltum D9 Isoplam® dusting it evenly in two crossed coats (two thirds of product for the first hand, the remaining third for the second hand) and proceed with the roughing and subsequent smoothing operations using the Isoplam® power trowel machine.

Do not use Pavilux Basaltum D9 Isoplam® to cover areas with excess water: this procedure may cause surface discarding phenomena.

Avoid wetting the surface during processing: this would result in cortical weakening. Instead, use E-Red Isoplam®, a processing aid and anti-evaporant, by misting it on the surface during the various steps of the power trowel machine.

It is suggested to keep the pavement surface thoroughly and continuously wet for about a week as soon as it has hardened.

Alternatively, it is recommended to apply Antieaporant Isoplam® which forms a film suitable for retaining the moisture of the concrete during the early stages of hydration. This allows to optimize the achievement of mechanical resistance and reduce the risk of quibbling.

Depending on the intended use of the flooring, consult the Isoplam® Technical Office for protective treatments to be applied later.

Notes: OPENING TO TRAFFIC AND SHORTCOMINGS DURING SEASONING

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

All companies operating for a wide variety of reasons above the CLS floor must avoid soiling the floor with oils, greases, paints, glues, adhesives (even paper tape), solvents, diesel and gasoline, and silicones. If the CLS is resin-coated once it has matured, this will highlight the point of contact with the aforementioned pollutants. Similarly, nothing will have to be deposited on the maturing CLS flooring, even for a few days, as the floor would not be allowed to mature evenly, causing irreparable aesthetic damage.

Depending on the intended use of the flooring, consult the Isoplam® Technical Office for protective treatments to be applied later.

SUGGESTED CONSUMPTION

From a minimum of 3.5 kg/m² to a maximum of 7 kg/m² as a function of the required wear resistance.

Note: In the case of presence in the CLS of shrinkage reducing agent and improvement of screed performance, a reduction of the suggested consumption up to values of approximately 2-2.5 kg/m² (range due to the particular laying



conditions such as mainly high air temperature and internal or external laying) is possible. These values comply with the standard "CNR-DT 211/2014 - Instructions for the Design, Execution and Control of Concrete Paving.

AVAILABLE COLORS

Cemento
Lavagna

PACKAGING AND STORAGE

Pavilux Basaltum D9 Isoplam® is supplied in 25 kg moisture resistant bags.
The product, when stored in a cool, dry place and at temperatures between +5°C and +35°C, will keep for more than 6 months from the packaging date shown on the bag.

SAFETY

Pavilux Basaltum D9 Isoplam® is intended for professional use only. Consult the Safety Data Sheet before use.

IMPORTANT:

All information in this sheet is based on best practical and laboratory experience. E' is responsible' for the customer verifying that the product is suitable for the use to which it is intended to be used. The manufacturer declines all responsibility' for the results of incorrect applications. It is recommended to always test on small surfaces before application. This tab replaces and cancels the previous ones. The data can be varied at any time. It is also recalled that ISOPLAM products are intended for professional use and that ISOPLAM provides for the periodic training of its customers who request them. Anyone who uses these products without being enabled by them does so at their own risk.