BILIZO® SELF AS

Multi Functional Epoxy Coating Compound

Product Description

It is an epoxy resin-based, two-component and solvent-free, self levelling and color flooring material with low viscosity and aesthetic appearance.

Uses

- As electrostatically conductive surface coating on the concrete and cement surfaces.
- It may be used by itself on the surfaces exposed to mechanical load of medium degree as described in the application procedures.
- In case of surfaces exposed to heavy load, it is used as a finish coat as described in the application procedures after preparation of the concrete surface with the bearing epoxy layers (mortar, multilayer, etc.)

Advantages

- Electrostatically conductive.
- Aesthetic appearing, forming a bright surface.
- High mechanical and chemical resistance.

Packaging

A 24-kg set of BILIZO® SELF AS consists of Component A in one pail of net 20 kg and Component B in one gallon of net 4 kg.

Consumption

- **As impregnation primer:**

BILIZO® MACRO PRIMER 100-400 g/m^2

(Depending on the concrete surface, it is recommended to thin the first coat with Thinner by 5-10% for better impregnation)

- **As Conductive Coat:**

Copper sheet in thickness of 150 g/m^2 and copper plate in thickness of 2mm in contact with the copper sheet. (Earthing connection will be made from these plates to a proper earthing connection in distance of 10m maximum or through the main ring to be formed at the wall base.

- **As bearing coat:**

BILIZO® SELF AS is mixed with quartz sand of 0,1-0,3 at ratio of 1:0,4 and at consumption ratio of 2,4-2,5 kg/m^2.

- **Plain Surface Appearance:**

Quartz sand of 0,1-0,3 in0.7 kg is added to the mixture of 1.8 kg A+B (for (1 m^2, at 20°C)

- **Texture Surface Appearance:**

BILIZO® ETA is added to the mixture described above at ratio of 0,2-0,3 kg/m^2 or 8-12%.

Technical Data

Finish	Gloss
Color	Any colors
Density	1,45 ± 0,05 kg/l (A+B)
Mix Ratio	4:1 (A:B – by weight)
Solids by Volume	100% (A+B)
Pot Life (+10°C)	50 minutes
(+30°C)	20 minutes
Wait Time Between Coat	24 hours / at 20°C
Ready for Light Traffic	2 days / at 20°C
Full Cure	7 days / at 20°C
In a mixture with quartz sand at ratio of 1:0,4;	
Density	1,65 ± 0,05 kg/l (A+B)
Compression Strength	80 N/mm^2 (in full cure)
Taber Abrasion Strength	50 mg (in full cure)
Flexural Strength	35 N/mm^2 (in full cure)
Shore D Hardness	79 - 81
Electric Conductivity Resistance (RE)	$10^4 - 10^5$ Ohm

Application

Surface Preparation: Application surface should be free of any damages. Surface should have compression strength of minimum 25 N/mm² and pull-off test result of minimum 1,5 N/mm², and concrete surfaces should a maximum moisture content of 5-6%. It should be free of any loose and friable particles, oil and paint leftovers and cement grout. Wide cracks and defects should be repaired beforehand. Any cement shell and bright screed on the concrete surface should be cleaned up by equipment such as sandblasting machine, hacking machine, wiping machine with diamond drum and impact grinding machine and it should then be roughened and wiped. Remove all dust from the surface by using industrial type vacuum cleaner.
Concrete surfaces in contact with the soil to be coated should be previously treated with water and water vapor sealants.

Application Conditions:

- Relative humidity of the air should be 80% maximum and the application (ambient and surface) temperature should be between 5-35 °C.
- In case it is applied outdoors, it should not be rainy 24 hours before and after and during the application.
- Surface temperature should be 3°C above the then dew point. (Please call our firm for the Ambient temperature-Ambient Moisture-Dew Point table.)

Mixing Procedure: It is a two-component product and it should, therefore, be prepared at the mix ratio specified for the quantity to be used, taking into consideration the pot life. For a homogenous mixture, make sure that the product temperature should not be less than 15°C. Component A should be stirred by itself by use of a mechanical mixer quickly and then the hardener (Component B) should be added, taking care of the mix ratio. After the Components A and B are stirred till the mixture becomes homogenous, quartz sand of 0,1 – 0,3 should be added and mixed by a mechanical mixer at 300 – 400 rpm for minimum 3 minutes.

Surface Application: When ready for application, the product is applied with toothed trowel on the surface in thickness of about 1.5mm and air bubbles in the coating should be released by the spiked roller.

Method

Priming Coat: Made ready for application, the concrete surfaces are primed with BILIZO® MACRO PRIMER, solvent-free, transparent and epoxy concrete primer by saturating the surface thoroughly. Application can be performed by roller or airless spray. After it gets dry, the appearance will be that of the wet concrete. Any concrete defects and big cavities after the application of the primer are repaired and filled with epoxy mortar to be obtained by mixing epoxy concrete primer and silica sand. And then the surface is primed again.

Conductive Coat: On the surface on which epoxy concrete primer is applied, copper sheet in minimum thickness of 150gr/m^2 is laid all over the area within 4-6 hours after the first dry of the primer. And at the wall bases, copper plates in thickness of 2mm are placed on the laid copper sheets. Care should be given that copper sheet and plates do not touch each other.

Bearing Coat: Minimum 24 hours after application of the epoxy impregnation, 04. parts quartz sand of 0,1-0,3 is added to 1 part BILIZO® SELF AS electrostatic epoxy coating mixture and it is applied on the electrostatic epoxy coating bearing coat in thickness of 1.5mm.

Clean Up Of Tools: Cellulosic or Epoxy Thinner.

Precautions :

- As the thickness of the electrostatic epoxy coating will affect the conductivity, the rough surfaces should be definitely leveled before coating.
- For surfaces to be exposed to heavy mechanical load, the surface may be reinforced before application with BILIZO® MACRO PRIMER before application.
- Priming coat should not be impaired with sand.
- Do not apply the bearing coat before the priming coat becomes fully cured.
- Make sure the bearing coat should not be thicker than 1.5 mm or the consumption should not be more than 2,5 kg/m^2. Higher thickness reduces conductivity.
- Do not use sand to obtain texture appearance.
- Connection from the copper plates to a proper earthing connection or main ring should definitely be performed by an expert electrician.

Storage

Store the product in a cool and dry place. Shelf life of the product is 1 year for Components A and B when stored properly in the original container unopened.

Safety Measures

Refer to Material Safety Data Sheet (MSDS) prepared as per the related EU directives before use.