

System sheet

Bautech ULTIMA

Baufloor[®]

Decorative, thin-layer polished concrete floor, PCC, thickness 8-15 mm

DESCRIPTION

Bautech ULTIMA Baufloor[®] is a thin-film polymer-cement (PCC) system solution for creating exclusive, floated and polished concrete floors with a marbled texture.

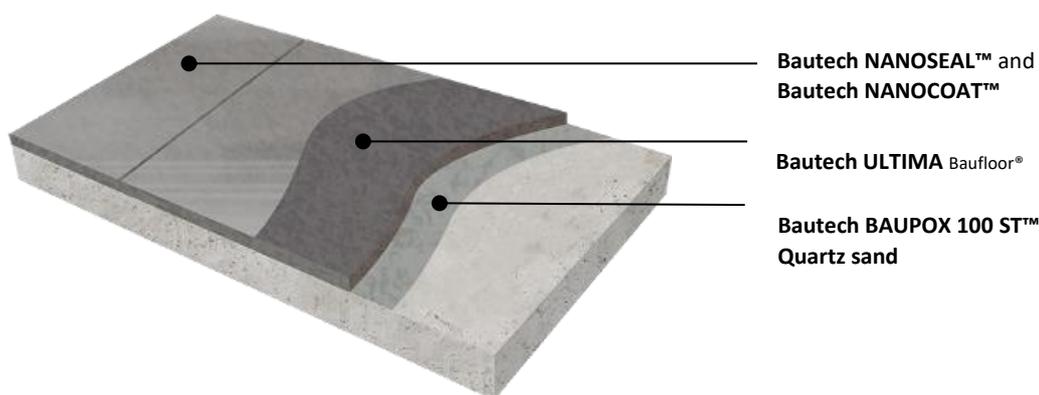
When polishing you can get a depth effect (3D), discoloration and shading on the floor surface.

This is based on polymers, hard aggregates, high-performance cements, admixtures and pigments.

APPLICATION AREA

- For making decorative, even, smooth, resistant to abrasion and wear, polished concrete floors on new and renovated concrete surfaces.
- For indoor use: in apartments and public facilities with heavy pedestrian traffic: shopping malls, shops, religious buildings, restaurants, offices, car show-rooms, gastronomic premises, at airports, stations, etc.

SECTION



BENEFITS

- Thin-layer system, thickness 8-15 mm
- High abrasion resistance
- High impact resistance
- High dusting resistance

- High chemical and mechanical resistance
- Mirror shine, the possibility of shading the surface
- Smooth, even, hard surface
- Easy to clean
- Low floor maintenance and care costs
- A wide range of colors
- For indoor use

APPLICATION CONDITION

- Substrate moisture - max. 4%
- Air humidity - max. 75%
- Substrate temperature - min. + 5 ° C.
- The substrate temperature should be at least 3 ° C above the dew point temperature.
- The ambient temperature during work and for the next 5 days should be between + 15 ° C and + 25 ° C.
- The surface should be protected against rapid moisture loss, loss of moisture due to e.g. high temperatures, drafts, solar radiation, etc.
- At least 3 days before laying Bautech ULTIMA floor, the floor heating should be turned off.
- All work should be carried out using appropriate tools. Installed floor should be protected against dust, dirt and contamination.
- An adequate lighting should be provided.

ORDER OF OPERATION/LAYER	PRODUKT	COVERAGE	
1	Priming with epoxy resin and quartz sand broadcasting	Bautech BAUPOX 100 ST™ Quartz sand 1.0 1.6 mm	0.3-0.5 kg/m ² 3 kg/m ²
2	ULTIMA floor spreading	Bautech ULTIMA Baufloor®	2 kg/mm/m ²
3	Power floating		
4	Ultima floor sealing	Bautech NANOSEAL™	1 l/4-10 m ²
5	Ultima floor polishing	Bautech NANOCOAT™	1 l/20-60 m ²

SUBSTRATE PREPARATION

The concrete slab must be stable, durable and should withstand expected static and dynamic loads. Concrete at least C20 class or screed with a minimum pull-off strength of 1.5 N / mm². The substrate humidity must not exceed 4%. If the substrate is uneven or non-homogeneous, first make an epoxy screed based on Bautech BAU-POX 100 ST™ resin.

The surface should be cleaned mechanically, e.g. by shot blasting or grinding. Weak or soft substrates that can be cracked and deformed under load should be removed. Cement milk, all types of dirt and old protective coatings must be removed mechanically by grinding, shot blasting or milling.

WAY OF APPLICATION

PRIMING LAYER

Product: **Bautech BAUPOX 100 ST™ -epoxy resin**
Properly mixed epoxy resin should be spread on a concrete slab in one or two layers using a rubber squeegee and roller to achieve full concrete saturation. Then the quartz aggregate should be tossed onto the wet epoxy in the amount of approx. 3.0 kg / m² - full broadcast. After the polymerization of epoxy the surface should sanded with sandpaper and vacuumed thoroughly.

Coverage: 0,30 – 0,50 kg/m²

FLOOR LAYER

Produkt: **Bautech ULTIMA™**
To 3.2-3.6 litres of clean, cool water add 25 kg (bag) of Bautech ULTIMA and mix for 3-4 minutes with a mixer until a homogeneous mass is obtained. Let stand for about 3 minutes and mix again briefly.

Prepare portions that will be used within approx. 15 min. Do not add more water than the instructions recommend as this will reduce strength and increase mortar shrinkage. In winter periods, the material should be kept in a heated and dry room before mixing.

The low temperature of the material may cause that some additives may not be able to dissolve when mixing. Too high temperature may reduce the mortar slump and its fast curing. The mixed Bautech ULTIMA™ mass should be applied onto to the previously prepared substrate and spread onto the right thickness with a

PIN Gauge Rake. After the surface has hardened to such an extent that it can be stepped on without leaving too deep of trace, the surface should be power floated with a metal disc. After each power floating check the floor level. All corners should be manually trowelled with steel trowels with a particular emphasis on perfect levelling of the floor. After preliminary power floating with a disk (levelling of the floor surface) one should continue floating with blades.

We smooth the surface by gradually increasing the angle of inclination of the blades. The whole cycle lasts from 6 to 12 hours and is divided into a few power floating cycles (depending on the area and temperature). During the last floating, so-called surface burns and discoloration of the material that give an irregular and individual pattern to the decorative floor appear.

Discoloration patterns rarely occur in the manual processing zone (wall line, corners, places inaccessible to the machine)..

NOTE: All contraction and expansion joints in the substrate should be sawn within 24-72 hours after floor installation and filled with **Bautech BAUFLEX™** expansion joint filler.

Coverage: about 2 kg/m²/ 1mm of thickness

SEALING AND POLISHING

Produkt: **Bautech NANOSEAL™** (lithium-polymer sealer for freshly power floated concrete).

Immediately after the power floating process is completed, the entire surface should be coated/sprayed with Bautech NANOSEAL™ to prevent Ultima slab from losing moisture too quickly. Spread the sealer in to a thin layer by using a high-quality microfiber mop not to leave streaks on the floor surface, avoiding the formation of puddles.

One can additionally protect the floor against excessive evaporation of water until polishing, e.g. with a painting foil.

Coverage: 1 litre per 4-10 m²

POLISHING

Product: **Bautech NANOCOAT®** polishing agent). Final polishing effect is achieved by the application of Bautech NANOCOAT™ and using polishing pads. For best results, spray the floor with Bautech NANOCOAT™ and spread it out by using a high-quality microfiber mop

not to leave streaks on the floor surface as they may affect the aesthetics of the final finish.

Important: The mop must be moistened with water before use. After drying (approx. 60 min.) the surface should be polished with delicate (white) pads or special diamond polishing pads that increase the polished surface temperature to approx. 30 ° C.

Coverage: 1 litre per 20-60 m²

SPEED OF CURE

At + 20°C and 60-70% relative humidity:

- foot traffic: after 24 hours
- mechanical loads: after 72 hours
- full wear resistance: 7 days after floor sealing
- loads: light after 14 days, heavy after 28 days from the floor installation

NOTE: the floor is not resistant to metal wheel loads.

STORAGE AND TRANSPORTATION

According to the technical data sheets of the products included in the system.

TOOL CLEANING

The tools used for Ultima floor spreading should be cleaned with water immediately after use. Mechanically remove bonded material.

SAFETY MEASURES

Detailed information on safety measures, storage conditions as well as technical data for each product can be found in the Safety Data Sheets

Work in accordance with the principles of building art, standards and safety regulations.

COLOR CHART

Bautech ULTIMA:

ULT600 – moon stone; ULT601 - ruby;
ULT602 - emerald; ULT603 – platinum grey;
ULT605 - black diamond; ULT606 - sapphire;
ULT607 - dark amber; ULT608 - topaz;
ULT609 - grey agate

PACKAGING

Bautech ULTIMA™ system includes

- Epoxy resin primer **Bautech BAUPOX 100 ST™**: 10l, 20l
- Decorative floor **Bautech ULTIMA**: 25 kg
- Sealer **Bautech NANOSEAL™**: 5 l, 20 l
- Polishing agent **Bautech NANOcoat™**: 5 l, 20 l

GENERAL INFORMATION

The manufacturer guarantees the quality of the product, but has no influence on the way it is installed.

All information refers to products stored and used in accordance with the recommendations, these are given in

good faith and take into account the current state of knowledge and experience of Bautech®. The applicator is obliged to use the product in accordance with its intended purpose and recommendations of Bautech company. All technical specifications provided are based on laboratory tests. Practical measurement results may not be identical due to conditions, location, way of application and other circumstances beyond Bautech's control.

Different recommendations of our employees requires a written form to be valid. With the publication of this manual, all previous ones cease to be valid.

The final appearance of installed floor may show differences in shade depending on the conditions and the way of application, drying conditions, etc. This is not a product defect and does not affect the technical parameters and performance of the floor. The colour variation of the floor can also be the result of a heterogeneous substrate. Bautech colour samples should be considered as demonstrative only. The final appearance may differ from the presented Bautech samples depending on the way of application, grinding, power floating, polishing. If in doubt, make your own tests or contact the Bautech Technical Department.

	
BAUTECH Sp. z o.o. ul. Staszica 25, 05-500 Piaseczno 13	
PN EN 13813 Declaration of Performance 01-05-17 BAUFLOOR ULTIMA System Thin-layer, polished, decorative concrete flooring - PCC. For indoor use. CT-C40-F10-A9	
Fire rating	Klasa A1 _{fl}
Release of corrosive substances	CT
Compressive strength	C40
Bending strength	F10
Abrasion resistance	A9
Coefficient of kinetic friction	- for dry surface ≥ 0,24 - for wet surface ≥ 0,12