

SYSTEM DATA SHEET

BAUTECH ULTIMA™

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



DESCRIPTION

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

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

Based on polymers, hard aggregates, high-performance cements, admixtures and pigments.

USES

- 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 showrooms, gastronomic premises, at airports, stations, etc.

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 colours
- For indoor use

APPLICATION CONDITIONS

- Substrate moisture - max. 4%
- Air humidity- max. 75%
- Substrate temperature - min. + 15 ° 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 too rapid moisture loss, loss of moisture due to e.g. high temperatures, drafts, solar radiation, etc.

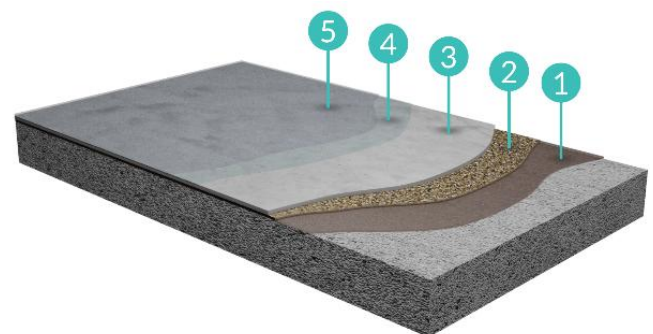
- At least 7 days before laying Bautech ULTIMA floor, the floor heating should be turned off.
- All work should be carried out using appropriate tools. Installed floor should be protected against dust, dirt and contamination.
- An adequate lighting should be provided.

SUBSTRATE PREPARATION

The concrete slab must be stable, durable and should withstand expected static and dynamic load. Concrete at least B25 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 BAUPOX 100 ST™ resin.

The surface should be cleaned mechanically, e.g. by shot blasting or milling. 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.

SECTION



1. Baupox 100 ST epoxy primer
2. Quartz sand 1.0-1.6 mm
3. Bautech ULTIMA
4. Nanoseal
5. Nanocoat

	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	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

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 be sanded with sandpaper and vacuumed thoroughly.

Coverage: 0.30 – 0.50 kg/m²

FLOOR LAYER

Product: **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 concrete rake. The poured mass should be rolled out with a spiked roller to remove trapped air bubbles.

After the surface has hardened to such an extent that it can be stepped on without leaving too deep trace, the surface should be power floated with a metal disc. 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 floor the 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

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

Immediately after the power floating process is completed, the entire surface should be coated with Bautech NANOSEAL™ to prevent Ultima slab from moisture loss too quickly. Spread the sealer once in a thin layer, avoiding the formation of puddles.

One can additionally protect the floor against excessive evaporation of water until polishing

Coverage: 1 l / 4-10 m²

POLISHING

Product: **Bautech NANOCOAT®** (polishing agent). Final polishing effect is achieved by application of Bautech NANOCOAT™ and using polishing pads. The application of Bautech NANOCOAT™ should be carried out using a high-quality microfiber mop not to leave streaks on the floor surface as they may affect the aesthetics of floor appearance.

Note: 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 a polished surface temperature to approx. 30° C.

Coverage: 1 l / 20-60 m²

CURING TIME

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

- foot traffic: after 24 hours
- loads:
 - light after 14 days,
 - heavy after 28 days from the floor installation

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

TOOL CLEANING

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

HEALTH AND SAFETY

For Safety Data Sheets please contact our Export Department.

GENERAL GUIDANCE

This data sheet is for general guidance purposes only. Further information is available from our Technical Department.

SHELF LIFE/ STORAGE/ TRANSPORT

6 months if stored in unopened container at a temperature between 5°C and 30°C.

The product should be stored away from direct sunlight and heat sources. Keep out of reach of children. Do not allow to freeze.

PACKAGING

Bautech ULTIMA™ system includes:

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

COLOR CHART

- ULT600 - moonstone,
- ULT603 - platinum,
- ULT605 - black diamond,
- ULT609 - grey agate.



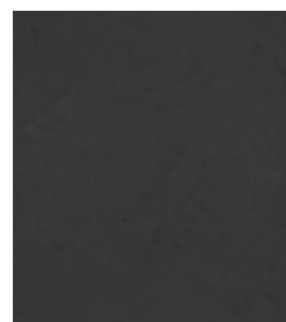
ULT 603



ULT 609



ULT 600



ULT 605

TECHNICAL DATA

Compliant with	EN 13813
Fire rating	Class A1 _{fl}
Release of corrosive substances	CT
Compressive strength	C35
Bending strength	F7
Abrasion resistance	A3