# BAUFLOOR® ENDURO

**Thin-layer , troweled concrete floor PCC, 8-15 mm**
**CT-C40-F10-A9**

## PRODUCT DESCRIPTION

**BAUFLOOR® ENDURO** is a thin-layer, troweled concrete floor containing hard aggregate, high-performance cements and proper admixtures and pigments.

## USE

- Production of even, smooth, abrasion-resistant, thin-layer, floated concrete floors that are suitable for intensive use on new and repaired concrete foundations
- To be used indoors and outdoors, in steel and power plants, production facilities, warehouses etc.

## PRODUCT CHARACTERISTICS

- high abrasion resistance
- high dusting resistance
- high impact resistance
- smooth surface
- to be used inside and outside of buildings
- wide range of colours

## APPLICATION CONDITIONS

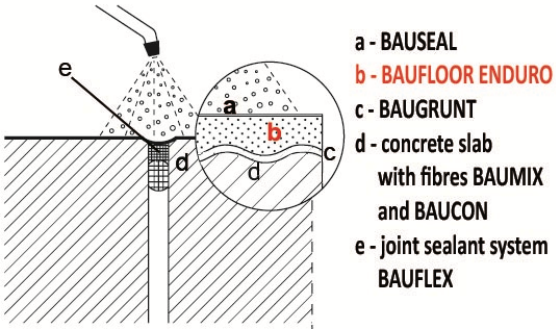
The ambient and foundation temperature during the works and for the next 5 days should be between +5°C and +30°C. The made surface should be protected from losing water too quickly as a result of, for example, high temperatures, draught, sunlight operation etc. In order to ensure the high quality of the floor and its uniform colour, all works should be performed with suitable tools in an area protected from dust, EPS balls etc. impurities.

## PREPARATION OF THE FOUNDATION

The foundation must be of carrying capacity, hard, stable, dry, compact, with no cracks and free from impurities. The compressive strength of the concrete foundation should be no less than 25 N/mm$^2$ and the peel strength - no less than 1.5 N/mm$^2$. If the strength of the foundation is 1.0-1.5 N/mm$^2$ or if the foundation is uneven or not uniform, then a base should first be made from UNIFLOOR mortar. The foundation should be cleaned mechanically, e.g.: by shot blasting or milling. Weak or soft foundations (such as asphalt), which might crack or deform under loads, should be removed.
The foundation should be grounded with water-diluted BAUGRUNT and left to dry. Repeat the grounding if BAUFLOOR ENDURO is to be put on later than 24 hours from the last grounding. Detailed information about the grounding are included in BAUGRUNT technical sheet.
If necessary, establish the target level of the floor (e.g. screw into the foundation screws with wall plugs every 1-1.5 m so that their heads are at that level; bend them after the floor is made).

## PREPARATION OF THE MORTAR

To 3.8 - 4.3 l of clean, cold water pour 30 kg (a bag) of dry BAUFLOOR ENDURO mixture and mix for 3-4 minutes with a slow-running drill with a mixer until a homogenous mass is obtained. Leave for about 3 minutes and mix again for a short time. Control the consistence of the mortar using a ring spread test. Properly prepared mortar spreads out in a circle of 170 – 190 mm diameter.
Prepare portions which will be used within about 15 min. Do not add more water than the instructions indicate, as this will decrease the strength and increase the contraction of the mortar. In the wintertime the material should be kept in a heated room prior to mixing. Low temperature of the material may cause that some additions will not be able to dissolve during mixing. Too high temperature of the material will decrease the spread of the mortar and result in too quick bonding.




## APPLICATION

Pour the prepared BAUFLOOR ENDURO mortar on the foundation and spread to the proper thickness with a spacer scraper or a long toothed float. Then treat the surface with a spiked roller until it's deaerated and even enough. How long the deaeration with a spiked roller will take depends on the temperature, humidity and flow of air. When the surface hardens to a degree that it can be stepped on without leaving too deep traces, troweling with power trowels should be commenced. The initial troweling should be made with a disk and subsequent ones with blades set at gradually larger angles.

**CAUTION!** All contraction and expansion joints as well as working cracks in the foundation should be reconstructed in the layer of BAUFLOOR ENDURO mortar and filled with BAUFLEX sealants.

## MAINTENANCE

Immediately after the troweling is completed, the whole surface should be treated with a selected preparation in order to prevent too quick loss of water:
**BAUSEAL® EKO**
A water-diluted sealer for industrial floors applied with the spraying method, with a low-pressure sprayer. Sealer should be applied once, with a thin layer, paying attention that no puddles are left.
Efficiency: 1 litre per 8-12 m$^2$
**BAUSEAL® ENDURO**
A solvent-based sealer for industrial floors applied on freshly made concrete floor, immediately after the last mechanical troweling is done. Sealer should be applied with the spraying method, with a low-pressure sprayer. Sealer should be applied once, with a thin layer, paying attention that no puddles are left.
Efficiency: 1 litre per 8-10 m$^2$
**BAUTECH FORMULA®**
Silicate and polymer based agent for the maintenance, strengthening and sealing of concrete surfaces. BAUTECH FORMULA should be applied evenly on the surface with the spraying method in the amount of 0.1 - 0.2 l/m$^2$ until complete coverage is obtained.
The surface should stay wet for 15 - 20 minutes. An additional amount of the agent should be applied in places where it dries up faster – a microfiber mop helps distribute the agent evenly and maintain the surface wet for the necessary time.
Efficiency: 1 litre per 4-10 m$^2$
**NANOSEAL®**
Lithium and polymer based agent for the maintenance, strengthening and sealing of concrete surfaces. Thanks to the penetration and hardening of concrete in molecular structure, it allows to obtain a highly resistant cement matrix of extreme physical and chemical properties. Additional modification with a specially selected polymer binding agent provides the maximum level of sealing the concrete by bonding those ingredients of the concrete matrix that are devoid of free calcium compounds.
NANOSEAL should be applied evenly on the surface with the spraying method in the amount of 0.1 - 0.2 l/m$^2$ until complete coverage is obtained. The surface should remain wet for 15 - 20 minutes. An additional amount of the agent should be applied in places where it dries up faster – a microfiber mop helps distribute the preparation evenly and maintain the surface wet for the necessary time.
Efficiency: 1 litre per 4-10 m$^2$

**NANOCOAT®**
Silicate-lithium polishing compound Thanks to the small molecular size, NANOCOAT deeply penetrates the concrete matrix, creating the so-called surface micro-reinforcement formula, which guarantees high chemical and physical resistance, hardens and seals the floor surface and creates a coherent, non-dusting and waterproof structure. NANOCOAT should be applied using a high-quality microfiber mop, so that no streaks are left on the surface, as these will remain visible and will negatively influence the appearance of the floor.
When the surface has dried up (about 60 minutes), it should be polished with a delicate, white pad or special diamond polishing pads which increase the temperature of the polished floor to about 30°C. Depending on the required gloss, the activity may be repeated 2-3 times.
Efficiency: 1 litre per 20-60 m2

## CLEANING OF TOOLS
The equipment and tools should be cleaned with water immediately after use. The bonded material should be removed mechanically.

## HEALTH AND SAFETY PRECAUTION
The mixture contains cement - mixed with water gives an alkaline reaction. Avoid breathing, protect eyes and skin. In case of contaminations: clean eyes with plenty of water, wash skin with soap and water. Working areas should be ventilated. Keep away from the children.

## MISCELLANEOUS INFORMATION
All the information herein refers to products stored and used according to our recommendations, has been presented in good faith and takes into account the current state of knowledge and experience of BAUTECH. You are obliged to use the product in accordance with its intended purpose and BAUTECH's recommendations. All the technical information provided is based on laboratory tests and trials. Out-of-laboratory tests may give different results due to the conditions, location, manner of application and other circumstances that are out of BAUTECH's control. Any different recommendations issued by our employees must be made in writing; otherwise, they shall be deemed null and void. These instructions replace all the previous ones and make them void.

The surface of the made floor may have differences in the shade and appearance, depending on the conditions and manner of performing works, drying conditions etc. This is not a defect of the product and does not influence the technical parameters and functional properties of the floor. Colour diversification of the floor may also result from non-homogenous concrete foundation.

## PACKAGING
30 kg bags, pallet 35 x 30 kg = 1050 kg

## STORAGE
6 months from the date on the packaging, if stored in original, tightly closed packaging, in ventilated rooms, at the temperature between 5°C and 25°C.

## TECHNICAL DATA

| | |
|---|---|
| Fire rating | $A1_{fl}$ |
| Release of corrosive substances | cement mortar (CT) |
| Compressive strength after 28 days | > 40 N/mm$^2$ (C40) |
| Bendig strength after 28 days | > 10 N/mm$^2$ (F10) |
| Abrasion resistance – Boehme test | < 9 cm$^3$/50 cm$^2$ (A9) |
| Thickness | 8-15 mm |
| Mixing proportions | 3,8-4,3 litres of water / 30 kg |
| Consumption | about 2,0 kg/m$^2$ for each mm |
| Applying temperature | +5°C +30°C |
| Usability | pedestrian traffic: 14 days<br>complete resistance: 28 days |
| Colours | Standard:<br>BFR600 – natural grey<br>BFR601 – brick red<br>BFR602 – olive green<br>BFR603 – platinum grey<br>BFR604 – titanium grey<br>BFR605 – graphite<br>On request:<br>BFR606 – blue<br>BFR607 – brown<br>BFR609 – yellow |
| CE | 09<br>EN 13813<br>CT-C40-F10-A9 |

*At the temperature of +20°C and relative air humidity of 65%: Higher temperature and lower humidity shorten, while lower temperature and higher humidity increase the specified time.

**BAUTECH Sp. z o.o.**
**ul. Staszica 25, 05-500 Piaseczno, Poland**
**tel. +48 22 716 77 91, fax +48 22 716 77 90**
**e-mail: bau@bautech.eu**
**www.bautech.eu**