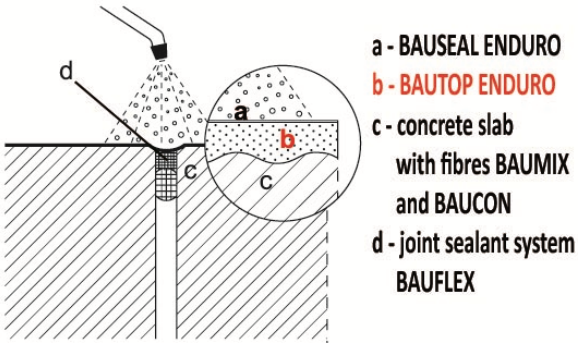
BAUTOP® ENDURO

Metallic hardener for industrial floors – DST system

CT-C60-F10-A1,5



DESCRIPTION

BAUTOP® ENDURO is a metallic, dry shake topping (DST) for monolithic concrete floors. It contains hard aggregate, high-performance cements and proper admixtures and pigments. Applied and troweled on freshly-made concrete, it creates a coloured, marble-like, abrasion and dusting resistant, smooth floor of increased resistance to the penetration with oils, grease etc.

USE

- New surface-hardened floors of high hardness and resistance to abrasion and dusting in heavy traffic facilities – production plants, warehouses with very intensive traffic, factories, logistic centres as well as in food and pharmaceutical industry facilities etc.
- Anti-electrostatic floors

PRODUCT CHARACTERISTICS

- Very high resistance to abrasion
- High dusting resistance
- Contains abrasion-resisting metallic aggregates
- High impact resistance
- Easy to clean
- Sealed and non-dusting surface
- Frost-resistant
- Wide range of colours

CONCRETE SLAB

BAUTECH DST SYSTEM floors are used on surfaces of freshly-made low-shrinkage concrete:

- class C20/25 or higher
- w/c ratio ≤ 0,50
- amount of cement ≤ 350 kg/m^3
- alkali contents in cement <0,5%
- cement CEM I, CEM II/A-S, CEM II/B-S or CEM III/A
- aggregate ≤ 16 mm
- contents of fraction ≤ 0.25 mm - min. 4%
- sand point about 35%
- total amount of cement and aggregate of fraction ≤0.25 mm – max. 450 kg/m^3
- addition of steel fibres BAUMIX and polypropylene fibers BAUCON by recommendation of BAUTECH - if an anti-electrostatic floor is being made, the concrete must have an addition of BAUMIX steel fibres in the amount of no less than 20 kg/m^3; also a discharge of electrical charges must be performed.
- consistence on the construction site: S3, Abrams cone slump about 12 cm. Addition of steel fibres decreases the slump.

In case of outdoor surfaces, concrete of exposure class XF4 should be used.

CAUTION! Do not add any volatile ashes, as these tend to accumulate in the top layer of the slab, which may cause the dusting of the floor or detachments of the hardenER. It is forbidden to add water to concrete mixture in order to increase its workability. This causes a significant loss of the strength of the concrete and a clear increase of the chemical and physical shrinkage, leading to the creation of uncontrolled scratches and cracks.

The concrete must be properly compacted.

APPLICATION CONDITIONS

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

METHOD OF USE

Before surface hardener BAUTOP ENDURO is used, the concrete must achieve proper hardness. The setting time of concrete depends on the temperature, relative humidity of the air etc. The surface of the concrete must not get too hard, therefore its condition must be frequently checked. As a result, selection of the optimal moment to begin application of the surface hardener will be possible. The works may be commenced when the imprints of feet on the concrete are not deeper than 3-4 mm. Remove excess of cement paste from the surface of the concrete with rubber squeegees and refresh the surface with a disc. Then spread about 2 kg/m^2 of BAUTOP ENDURO hardener. Perform rough troweling of the surface with a disc, spread the hardener again, in the amount of about 2 kg/m^2 and trowel the whole of it once more with a disc. The amount of spreaded hardener is about 4.0 kg/m^2. Continuously control the consumption, as careless distribution of the hardener may decrease the quality of the floor. Perform the subsequent stages of troweling with blades set gradually at increasing angles.

CURING

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

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

Product compliant with EN-13813

Fire rating	$A1_{fl}$
Release of corrosive substances	cement mortar (CT)
Compressive strength after 28 days	> 60 N/mm^2 (C60)
Bendig strength after 28 days	> 10 N/mm^2 (F10)
Abrasion resistance – Boehme test	< 1,5 cm^3/50cm^2 (A1,5)
Chemical resistance	e.g. oils, chloride-based whitening agents, ethyl alcohol, alkaline detergents, printing paint
Oil permeability	0 mm
Hardness - Mohs's scale	>7
Dosage	about 4,0 kg/m^2 ± 10%
Applying temperature	from +5°C to +30°C
Usability*	pedestrian traffic: 14 days complete resistance: 28 days
Colours	Standard: BT400 – natural grey BT401 – brick red BT402 – olive green BT403 – platinum grey BT404 – titanium grey BT405 – graphite On request: BT406 – blue BT407 – brown BT409 – yellow
CE	06 EN 13813 CT-C60-F10-A1,5

*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.

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