TECHNICAL DATA SHEET

QUICK CONCRETE B-20 449

Concrete mortar with accelerated setting time

Areas of application

The mortar is intended for making cement subfloors and floors as well as similar pressure, backing layers and layers shaping a slope, inside and outside buildings Used as a base in a floor heating system, floating on thermal insulation, separating layer and linked with a bed. The screed can also be used to execute other, small elements poured directly at the construction site, after applying sufficient reinforcement. Suitable for applying on all groundworks on hydraulic binding agents and vapor barriers or anti-humidity insulation layers. Suitable for anchoring fence piles. Minimal layer thickness: base binding with the groundwork > 25 mm, base on separating layer > 35 mm, base floating on the thermal and/or acoustic insulation layer > 40 mm, anhydrite base in the floor heating system -> 45 mm (external diameter of the heating element + thickness of the layer above heating elements min. 30 mm).

Properties

- Fast-binding
- Layer thickness 25-100 mm
- Very high durability
- For floor heating systems
- On the balconies and terraces
- Universal
- Frost-resistant
- Non-shrinking

Application procedure

Technical data

Item number	38803
Packaging	
Quantity per unit	25 kg/unit
Unit per pallet	48 unit/Pal.
Grain size	0-2 mm
Colour	Grey
Consumption	approx. 2 kg/m^2/mm
Water requirement	approx. 3,2 L/unit
Reaction to fire	A1fl
Compressive strength	≥ 20 MPa (28 d)
Possibilities to enter	6 h

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Item number	38803
Ready for loading after	24 h
Suitable for floor cover	5 d
Chromium content	≤ 0,0002 %
Mortar class	R2
Coating thickness	25-100 mm
Processing time	30 min

Material base

- Portland cement
- Aluminous cement
- Quartz additive

Application conditions

Apply at temperatures from +5 °C to +25 °C, these temperatures apply to air, bed and product. All substrates shall be bearing, compact, stable, even and clean

Surface

The groundwork should be prepared according to the application option. Absorptive substrates shall be moistened with water or primed Unstable, fragile or incoherent substrates shall be removed. Cement screeds shall be at least 4 weeks old, while concrete substrates need 6 months. In case of “floating” subfloor, styrofoam or mineral wool panels of appropriate hardness shall be staggered (mounted with edge shifting) on a cleaned and even bed. The panels shall be mounted in such a way as to avoid slots between them. When styrofoam panels are applied, sand bed can be a good solution to level any surface irregularities, which could otherwise cause panel cracking or curling. An expansion joint shall be made with a joint filler tape to separate a screed from walls. PE film shall then be uniformly spread on the entire surface. The film shall be placed with a min. 0.2 mm turn up on the wall above the expected poured base level. Film shall be joined with min. 10 cm overlaps by gluing, joining with self-adhesive tape or welding to achieve tight insulation. Note: properly made “floating” subfloor shall not be directly connected with walls, the bed under insulation or with installation elements. Tightness and mounting of the heating installation shall be checked. In case of hot water heating, pipes shall be filled with water to avoid their flowing out in the course of works.
Concrete, reinforced concrete: moisten with water, if very absorbent, prime with GRUNTOLIT-W 301
Cement screed: Prime with GRUNTOLIT-W 301 or EXPERT 6
Making small concrete elements: pour mortar into a formwork, possibly with applied reinforcement

Preparation

The dry mixture shall gradually be poured into a container with a proper amount of clean, cold water, while manually or mechanically stirring with a slow-speed mixer until homogenous mass is obtained without any lumps. The mass shall be put aside for 1 minute to mature and then stirred thoroughly again. The obtained mass consistency shall prevent its sliding from a steel, angled float. If there is a need to use a part of the packaging, the entire dry compound must be carefully stirred because during transport components could be separated. Do not mix the hardened grouting mixture again.

Application procedure

The mortar prepared must be laid, most often between screeds, layer with thickness dependent on the type of construction of floor and compressibility of layer of thermal or acoustic insulation. Remove the excess of grout with a trowel, moving on the guides. After initial setting, smoothen the surface with a long float. In case of big floor loads, high temperature variations, floors on ceilings of prefabricated elements at premises with increased intensity of use, when

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subfloors are laid on thermal or acoustic insulation layers, highly susceptible to deformation, as well as to reduce the number of anti-contraction joints, subfloor reinforcement systems shall be applied.

Instructions

Freshly applied mortar must be protected against too quick drying up e.g. as a result of strong insolation, high temperature in rooms, draughts etc. When using outside a building, it is not allowed to perform works during precipitation, strong wind and high insolation of walls without special covers reducing an impact of weather factors. When executing formworks, remove the formwork at least after 48 hours (if the element has been drying at approximately +20 °C) While subfloors are made, the principles shall be followed of expansion joints application: structural, insulation and anti-shrinkage. Structural expansion joints shall be used at the areas where structural building expansion joints run and when it is necessary to eliminate the effect of thermal material expansion. Insulation expansion joints shall be used to separate the floor from other building elements (walls, pillars, stairways, etc.) which may constrain floor movements. They shall also be used where subfloor thickness is changed and at the contact point of various floors, as well as to separate rectangular subfloor fields at premises with complex shapes.
Anti-shrinkage joints shall separate the entire area into fields, not larger than: 30 m^2 with side length up to 6 m at indoor premises, 20 m^2 with side length not exceeding 5 m- in rooms with floor heating, 40 m^2 with side length up to 8 m- in rooms with floor heating when anti-shrinkage reinforcement is applied (a recommended solution). In corridors, the spacing of anti-shrinkage joints shall not exceed 2–2.5-fold value of corridor width. Expansion joints of screeds on terraces shall be spaced every 2–2.5 m, depending on insolation and outer lining colour. Avoid contact with skin and protect eyes. Detailed guidelines are included in the material safety data sheet.

Storage

Up to 12 months from the date of manufacture, in dry places and in intact packaging

General information

This product data sheet replaces all its previous versions.The information, included in this technical card, represents our current knowledge and practical experience. This is general information only which shall not obligate the manufacturer to take any responsibility either for workmanship or for the manner of use. For there may be differences and specific execution conditions.The product shall be applied in accordance with required technical knowledge and OHS rules.Avoid contact with skin and protect eyes. In case of contact with eyes, rinse them up with a large quantity of clean water and consult a doctor. It shall be recommended to use gloves, safety goggles and protective clothing. All technical data is given for the temperature of 20 degrees Celsius. These temperatures apply to air, bed and embedded material.
All technical data listed in this product specification has been determined under laboratory conditions.