

Flexible Thin-Bed Mortar

codex Power Plus

Thin-bed mortar for ceramic floor and wall tiling

Description:

Low slump, flexible, hydraulic setting, plasticised thin-bed mortar in accordance with DIN EN 12 004 C2 FTE for installation of ceramic wall and floor tiling in interior and exterior locations.

Amongst others suitable for/on:

- ▶ fine and coarse, large and small format tiling
- ▶ earthenware, stoneware and clinker
- ▶ interior fine stoneware
- ▶ artificial stone tiles that are resistant to deformation and discolouration
- ▶ bonded insulation- and lightweight construction- boards
- ▶ plasterboard
- ▶ tiling board
- ▶ warm water underfloor heating
- ▶ bonded dry screed elements
- ▶ cement, lime / cement renders, plaster
- ▶ brickwork, stonework, blown concrete, limestone
- ▶ in-situ concrete, pre-cast concrete (min. 6 months old)
- ▶ calcium sulphate- and cement- screeds
- ▶ surface heating flooring with electrical cable systems

Mixing with codex Power Mix additive produces a "flex mortar" with special bond and deformation properties.



Product Properties / Benefits:

Plasticised, hydraulic setting, dry mortar mix. When mixed with water, produces a fine-grained, smooth and low-slump mortar with excellent working properties.

Composition: Portland cement, mineral additives, polyvinyl-acetate copolymers and binders.

- ▶ High specification
- ▶ Low-slump, especially for fixing wall tiles
- ▶ Universal applications
- ▶ Up to 5 mm mortar bed thickness
- ▶ Extended adhesive open time
- ▶ Low chromate content

Technical Data:

Packaging:	paper sack
Packsize:	5 kg / 25 kg
Shelf life:	min. 12 months
Mortar colour:	grey
Mixing water:	1.56 – 1.76 litres per 5 kg 7.80 – 8.80 litres per 25 kg
Working temperature:	5 °C to 25 °C / 41 °F to 77 °F
Pot life:	approx. 5 hours*
Working time:	approx. 30 minutes*
Set for grouting:	after approx. 12 hours*
Load bearing:	after approx. 3 days*
Final strength:	after approx. 28 days*

* At 23 °C / 73 °F and 50 % relative humidity.

Subfloor Preparation:

The substrate must be sound, dry, flat, free from cracks, clean, load-bearing and free from materials that would impair adhesion. Test substrates in accordance with applicable standards and notices and report any deficiencies. If necessary, mechanically prepare smooth concrete and weakly bonded or soft surfaces and remove all dust. According to substrate type and condition, prepare with suitable primers and smoothing compounds from the codex Product Guide. Prime gypsum-based surfaces. Flow-screeds must be abraded, vacuumed and primed. Always allow primers to dry thoroughly.

Heated screeds must be prepared according to the "interface co-ordination with heated floor constructions" (functional heating, heating to readiness for covering).

Refer to the Product Data Sheets for other codex product used.

Application:

1. Prepare about 7.8 – 8.8 litres of cold, clean water, sprinkle in the contents of the sack (25 kg) whilst stirring vigorously and mix to a smooth, lump-free mortar.
2. Allow to stand for approx. 3 minutes. Then mix well once again.
3. Using a smoothing trowel, apply a thin, overall bonding coat onto the surface.
4. Onto the bonding coat, whilst still wet, apply an adequate quantity of mortar and immediately and evenly distribute with a notched trowel. Only spread as much surface area as can be tiled within the open time (finger test). Pot-life approx. 5 hours.
5. With a light twisting motion, fully push the tiles into the adhesive bed and press well down.

When using codex Power Mix additive, mix 1 part dispersion and 2 parts water and use this to mix the thin-bed mortar to the desired consistency.

By selection of a suitable trowel notch and application method (buttering/floating), the desired and best possible full bed installation can be achieved.

Consumption:

Notch size	Consumption approx.	Approx. m ² per 25 kg sack
C2, 6 mm square notch	2.0 kg/m ²	12.5
C4, 8 mm square notch	2.9 kg/m ²	8.6
C5, 10 mm square notch	3.4 kg/m ²	7.4
codex 16 notch	4.3 kg/m ²	5.8
codex 20 notch	4.5 kg/m ²	5.5

Differences in material consumption are possible dependent upon substrate condition (roughness, surface irregularity, surface), handling and the condition of the notched trowel.

Important Notes:

- ▶ Shelf life min. 12 months in original packaging when stored in dry conditions. Carefully and tightly seal opened packaging and use the contents as quickly as possible.
- ▶ For areas with high exposure to chemicals and acids, as well as on wood or chipboard, metal and plastics, use the codex products in accordance with the current Product Guide or obtain technical advice.
- ▶ Floor heating supplied by a radiator-return must be equipped with a temperature limiter (< 38 °C / < 100 °F).
- ▶ Optimum working conditions are 15 – 25 °C / 59 – 77 °F, relative humidity 75 %. Cold conditions and high air humidity will extend, whilst warm conditions, dry air and highly absorbent substrates will shorten the working, setting and drying times.
- ▶ Protect freshly laid surfaces from draughts and the influences of direct sun, heat and moisture.
- ▶ Clean tools and contaminated ceramics with water whilst the mortar is still fresh.
- ▶ Drying and strength development depend on the climatic conditions. When using outdoors, weather cycles must be considered so as to ensure an adequate setting and drying of the installation, otherwise protective measures must be taken.
- ▶ Grout the tiling only after adequate setting and drying of the mortar. Avoid trafficking the area too soon.
- ▶ Exterior application: in principle, a barrier/seal in accordance with regulations using codex NC 220 or codex NC 210 should be incorporated. On heavily exposed balconies and terraces, our first recommendation is to use codex Power Fluxx Turbo with codex Power Mix. As covering material use preferably stoneware tiles.
- ▶ The following standards are applicable and especially recommended:
 - DIN 18 352 "Working with large and small format tiling"
 - DIN 18 157 "Ceramic tile installation using the thin-bed method"
 - ZDB publications:
 - "Bonded damp-proofing"
 - "Coverings on cement screeds – heated"
 - "Coverings on cement screeds – unheated"
 - "Coverings on calcium sulphate screeds"
 - "Exterior coverings"
 - "Interface co-ordination"
 - BEB publications:
 - "Assessment and preparation of substrates"

Protection of the Workplace and the Environment:

Irritant. Contains cement low in chromate acc. Directive 2003/53/EC. Cement produces strong alkaline on reaction with water. Avoid contact with eyes and skin. In the event of contact, rinse thoroughly and immediately with water. In the event of skin or eye irritation, consult a doctor. When mixing wear a protective dust-mask. Use protective gloves. Presents no physiological or ecological risk when fully cured.

Disposal:

Dispose of empty packaging according to local regulations. Collect waste material, mix with water and allow to harden, then dispose as Construction Waste.