

Levelling compound

# CODEx FM 20

Self-levelling compound for thicknesses up to 20 mm for interior applications

## APPLICATIONS

Self-levelling cement floor smoothing compound for thicknesses up to 20 mm. Suitable for equalising, levelling and smoothing of substrates. For the manufacturing of level installation areas for subsequent tiles and natural stone coverings for interior applications on standard construction substrates.

Excellent flow properties for a flat surface with increased requirements on the flooring substrate, e.g. installation of large size tiles.

LEED: Meets the LEED requirements in IEQ Credit (4.1) Low Emitting Materials (LEED v4)

## SUITABLE FOR

- ▶ Manufacturing of level, firm installation substrates for ceramic tiles and slabs, natural stone coverings, etc.
- ▶ Commercial and industrial areas with normal wear
- ▶ Wet rooms (with subsequent composite seal)

## SUITABLE ON

- ▶ Calcium sulphate and cementitious screeds
- ▶ Concrete
- ▶ Old tile, plates and terrazzo floor coverings
- ▶ New mastic asphalt screeds (max. 5 mm thickness)
- ▶ Old substrates with strongly bonded waterproof adhesive and compound residues
- ▶ Hot water underfloor heating



## PRODUCT BENEFITS/FEATURES

- ▶ Thickness range from 0 – 20 mm
- ▶ Excellent flow characteristics
- ▶ With flow and pumping properties
- ▶ Quick-setting
- ▶ Low-tension
- ▶ High compression and flexural strength

## TECHNICAL SPECIFICATIONS

|                             |                                                   |
|-----------------------------|---------------------------------------------------|
| Pack type                   | paper bag                                         |
| Pack size                   | 25 kg                                             |
| Shelf life                  | 9 months                                          |
| Color                       | grey                                              |
| Minimum working temperature | on the ground at least 10 °C                      |
| Ideal working temperatures  | + 15 to + 25 °C                                   |
| Water quantity required     | 0.24 - 0.26 litres/ 1 kg<br>6 - 6.5 litres/ 25 kg |
| Working Time/ Pot Life      | 20 - 30 minutes*                                  |
| Set to foot traffic         | approx. 2 hours*                                  |
| Ready for covering          | from approx. 12 hours*                            |
| Burning behaviour           | A1 fl                                             |
| Compressive strength        | C 30                                              |
| Bending tensile strength    | F6                                                |
| Consumption                 | 1.5 kg/m <sup>2</sup> /mm layer thickness         |

\*At 23 °C and 50% rel. humidity.



## SUBSTRATE PREPARATION

The substrate must be sound, dry, load-bearing, free of cracks and free of materials that could impair adhesion. Test the substrate in accordance with applicable standards and bulletins and report any deficiencies.

Calcium sulphate screeds must be ground and vacuumed, either by the screed installer as follow-up treatment or as paid special service by the tile fitter. Thoroughly brush off, abrade, grind or shot-blast weakly bonded or soft substrate surfaces. Thoroughly vacuum off loose material and dust.

Use a suitable primer from the codes Product Guide according to the type and condition of the substrate. Allow primers to dry completely.

Expansion strips must be attached at the required places, e.g. rising structural elements, to prevent the compound from entering into connection joints or rigid connectoons. Refer to the product data sheets for other products used.

## APPLICATION

1. Pour cold, clean water into a clean container. Add bag contents into the water whilst stirring vigorously until a creamy and lump-free compound is obtained. Use agitator with levelling compound stirrer. Do not mix too thin.
2. Spread the compound evenly on the primed substrate using the smoothing trowel or the large area rake. With thicker layers or with the raking method the flow and surface can be improved using the spike roller. Where possible, spread to the desired thickness in one.

## READY FOR COVERING

| Layer thickness | Ready for Covering                                          |
|-----------------|-------------------------------------------------------------|
| up to 20 mm     | after approx. 12 hours with tiles                           |
| up to 20 mm     | after approx. 24 hours with natural stone (complete drying) |

## IMPORTANT NOTES

- ▶ Store cool and dry place. Carefully and tightly re-seal opened packaging and use the contents as quickly as possible.
- ▶ Optimum processing at + 15 to + 20 °C and relative humidity below 75 %. Low temperatures, high humidity and greater thickness will delay whilst high temperatures will accelerate setting, drying.
- ▶ For greater thicknesses above 5 mm on moisture-sensitive or weak substrates (calcium sulphate screeds or adhesive residues), use epoxy-resin primers gritted.
- ▶ Not suitable for use in underwater or permanently wet areas. In these cases use codex products from the current codex product overview.
- ▶ Fit expansion strips to adjoining structures to prevent ingress of the compound into the connection joints. Expansion and movement joints from the substrate must be incorporated.
- ▶ For multi-ply coating apply an intermediate primer using on the surface and coat with follow-up levelling after drying.

- ▶ Any subsequent moisture rising from the substrate must be prevented through suitable measures, e.g. by using codex barrier primer.
- ▶ Protect freshly installed areas from draughts, direct sunlight and sources of heat or wetness.
- ▶ Leaving such compound layers open too long also tends to propagate stress cracks and should therefore be avoided.
- ▶ Self-levelling codex levelling compounds can be mixed and pumped with continuously mixing spiral pumps, e.g. P.F.T. Monojet or m-tec duo mix.
- ▶ In addition to all relevant standards, guidelines and bulletins the following are recommended for special attention:
  - DIN 18 352 "Tile and slab work"
  - DIN 13 332 "Working with natural stone"
  - DIN 13 333 "Working with concrete blocks"
  - DIN 18 353 "Working with screeds"
  - BEB bulletins:
    - "Assessment and preparation of substrates"
    - "Interface coordination with heated floor constructions"

## SEALS OF QUALITY & ECOLABELS

- ▶ Low chromate content acc. Regulation (EC) No. 1907/2006 (REACH)
- ▶ EMICODE EC 1 PLUS / Very low-emission

## CONSTITUENTS

Special cements, mineral aggregates, redispersible polymers and additives.

## PROTECTION OF THE WORKPLACE AND ENVIRONMENT

Contains cement low in chromate acc. Regulation (EC) No. 1907/ 2006 (REACH). Cement produces strong alkaline on reaction with water. Avoid contact with skin and eyes. In the event of contact, rinse immediately with water. In the event of skin or eye irritation, seek medical advice. Use protective gloves. When mixing wear a protective dust-mask. Presents no physiological or ecological risk when fully cured.

## DISPOSAL

Where possible, collect product residues and re-use. Do not allow to get into drains, sewers or ground. Empty paper packaging is recyclable. Collect waste product, mix with water, allow to harden, then dispose as Construction Waste.