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SCHOMBURG Building Product Systems

Technical Data Sheet

MONOFLEX-FB-SE

Art.-No. 2 04228

Flow bed flexible adhesive

Properties:
- Conforms to DIN EN 12004, C2 FE S1
- S1 deformable adhesive to DIN EN 12002
- For interior and exterior use
- Rapid setting
- Thixotropic
- Efficient application
- Fulfils the criteria required for the guideline "flexible adhesive"

Areas of application:
MONOFLEX-FB-SE is suitable for use as a thin bed adhesive for the virtually void free installation, when under time pressure, especially of profiled or large format tiles and in heavy duty areas. With MONOFLEX-FB-SE a virtually void free adhesive bed is possible in one operation; buttering the backs of the tiles with the adhesive can be omitted when using suitable fixing techniques.
MONOFLEX-FB-SE is suitable for fixing vitrified or earthenware tiles, ceramic tiles with water absorption < 0.5% (fully vitrified), clinker, mosaic and natural stone materials that are neither sensitive to discolouration nor translucent. MONOFLEX-FB-SE is suitable for secure fixing on horizontal substrates, or those with a slight fall, in accordance with DIN 18157 part 1 e.g. concrete, aerated concrete, cement and calcium sulphate based screeds/heated screeds etc. It is additionally suitable as a bedding mortar for lightweight building panels e.g. in extruded polystyrene and for bonding tiles to SCHOMBURG mineral-based or dispersion-based waterproof coatings. MONOFLEX-FB-SE can be used to install tiles to difficult substrates (e.g. balconies and terraces) with the addition of the highly flexible UNIFLEX-B.

Technical Data:

Basis:	aggregates, cement, additives (polymer modified)
Colour:	cement grey
Filler configuration:	fine sand
Bulk density:	1.5-1.6 kg/dm³
Application temperature:	+5 °C to +25 °C
Pot life *):	30 to 45 minutes
Open time *):	approx. 20 minutes
Grout after *):	approx. 4 hours
Foot traffic after *):	approx. 4 hours
Full loading/service *):	after approx. 7 days
Testing:	conforms to DIN EN 12004

*) These values are valid at + 20 °C and 65% relative humidity. Higher temperatures shorten, lower temperatures lengthen the declared times.

Substrate preparation:
MONOFLEX-FB-SE is suitable for a secure bond to all floor substrates e.g. concrete, cement-based and calcium sulphate based screeds / heated screeds. The substrate must have a virtually closed surface and a surface condition and strength appropriate for its type. The substrate must be dry, clean, load bearing, and be free from separating substances and penetrating cracks. Remove coatings, paint, oil, laitance and loose parts. Abrade smooth concrete surfaces and prime porous substrates with ASO-Unigrund before tiling. Anhydrite screeds must be mechanically abraded, vacuumed and as with all calcium sulphate bound substrates thoroughly primed with ASO-Unigrund. When installing tiles observe all parts of DIN 18157, part 1.
The suitability of substrates to take coverings is to be determined through moisture measurements with a CM-device (carbide hygrometer). The CM-moisture content may not exceed:
- CT ≤ 2.0 CM% for screeds on insulation or separating layers
- CA without underfloor heating ≤ 0.5 CM%
- CA with underfloor heating ≤ 0.3 CM%

The carbide hygrometer measurement is to be carried out in accordance with current operating instructions FBH-AD from the technical information "Coordination of cut out areas with heated floor constructions".

MONOFLEX-FB-SE

Product preparation:
Mix MONOFLEX-FB-SE with clean water in a clean mixing bucket until homogenous.
Mixing ratio:
5.75 to 6.25 litres water : 25.0 kg MONOFLEX-FB-SE

On external horizontal surfaces e.g. balconies and terraces MONOFLEX-FB-SE can be modified with UNIFLEX-B. For improved workability with MONOFLEX-FB-SE and UNIFLEX-B add water after mixing the two materials.
Mixing ratio:
8.33 kg UNIFLEX-B : 25 kg MONOFLEX-FB-SE : 2.0 litres water.

The addition of UNIFLEX-B lengthens the adhesive open time and pot life somewhat. The deformability to DIN EN 12002 is considerably increased. After allowing to stand for 3 minutes, remix the adhesive. Do not prepare more adhesive than can be used within the pot life. Spread the MONOFLEX-FB-SE on to the substrate and comb through with a suitable notched trowel dependent on tile format – special trowels have been proven (e.g. HFV notches, flowline). Lay finishing materials within the adhesive open time (finger test approx. 20 minutes). Always clean the mixing bucket as setting MONOFLEX-FB-SE acts as an accelerator. Do not mix with other cement-based adhesives.

Estimating & Supply:
Packaging:
25 kg bag with PE liner
Consumption:
approx. 3.4 kg/m^2 with an 8mm notched trowel
approx. 4.2 kg/m^2 with a 10 mm notched trowel

Cleaning & Equipment Maintenance:
Clean tools with water immediately after use.

Storage & Shelf Life:
6 months when stored cool and dry in the original unopened packaging. Use opened packaging promptly.

Important advice:
- When installing large format tiles in heavy duty areas we recommend that they are vibrated e.g. with a vibration device. Due to its thixotropic properties the MONOFLEX-FB-SE is encouraged to flow through vibration. Voids in the adhesive bed are closed.
- To assist in the best possible void free bedding of tiles we recommend that the adhesive bed is combed in one direction so that the air under the tiles can escape via the vent spaces (free space between the ribs).
- When installing natural or synthetic stone observe the specific properties of the material (tendency to discolour, risk of curling etc.) and the installation recommendations of the stone/tile producer. In cases of doubt carry out a trial area.
- Perimeter, bay and movement joints are to be reflected through and sealed with a suitable material e.g. edging strip.
- To avoid curling effects due to water absorption we recommend the use of ASODUR-EK98 with agglomerate/synthetic stone.
- Please heed the current ZDB information sheets distributed by the German tile association, especially when fixing to calcium sulphate based substrates and heated constructions.
- Prime calcium sulphate based substrates with ASO-Unigrund-GE or ASO-Unigrund-K (mixing ratio 1:3 with water). In order to avoid the formation of ettringite with calcium sulphate based substrates UNIFIX-AEK is suited for the installation onto these substrates up to residual moisture contents of 1.0% on heated screeds or 1.5% with unheated constructions, measured with a carbide hygrometer.
- Do not add more water or fresh mortar to a thin bed adhesive that has started to set in order to re-life it. There is a risk of inadequate strength development.
- The direct contact between cement-based tile adhesives and magnesium-based screeds leads to the destruction of the magnesite screed. Rear penetrating moisture from the substrate must be eliminated with suitable measures. The magnesite substrate is to be

mechanically abraded and primed with the epoxy resin INDUFLOOR-IB2360, see TDS for application instructions.

- For waterproofing external surfaces (balconies and terraces) use the elastic waterproofing systems AQUAFIN-2K or AQUAFIN-2K/M.
- MONOFLEX-FB-SE is a hydraulically setting adhesive and until fully cured, which may take a few days in unfavourable conditions, protect against water and frost.
- Protect areas where MONOFLEX-FB-SE will not be applied, from exposure.
- Observe the relevant current regulations. Therefore e.g. DIN 18157, DIN 18352, DIN 18560, DIN 13813, DIN 18 202, DIN 1055
  The BEB information sheets distributed by the "Bundesverband Estrich und Belag e.V."
  The professional information for the coordination of cut out points for heated floor construction.
  The ZDB information sheets distributed by the German professional tile association:
  [*1] Advice on the installation of combined waterproofing with tile and slab cladding and finishes for interior and exterior areas. (January 2005).
  [*2] Finishes on calcium sulphate screeds
  [*3] Movement joints in tile and slab cladding and finishes.
  [*4] Ceramic floor finishes in heavy duty areas
  [*5] Ceramic tiles and slabs, natural and concrete stone/slabs on cement-based floor constructions with insulation.
  [*6] Ceramic tiles and slabs, natural and concrete stone/slabs on heated cement-based floor constructions.
  [*7] Exterior locations.
  [*8] Swimming pool construction.

Please observe a valid EU safety data sheet.

GISCODE: ZP1