Note on English translation / Hinweise zur englischen Fassung
This is a translation of the technical data sheet valid in Germany.
All stated details and properties are in compliance with the regulations of the German standards and building regulations. They are only applicable for the specified products, system components, application rules, and construction details in connection with the specifications of the respective certificates and approvals.
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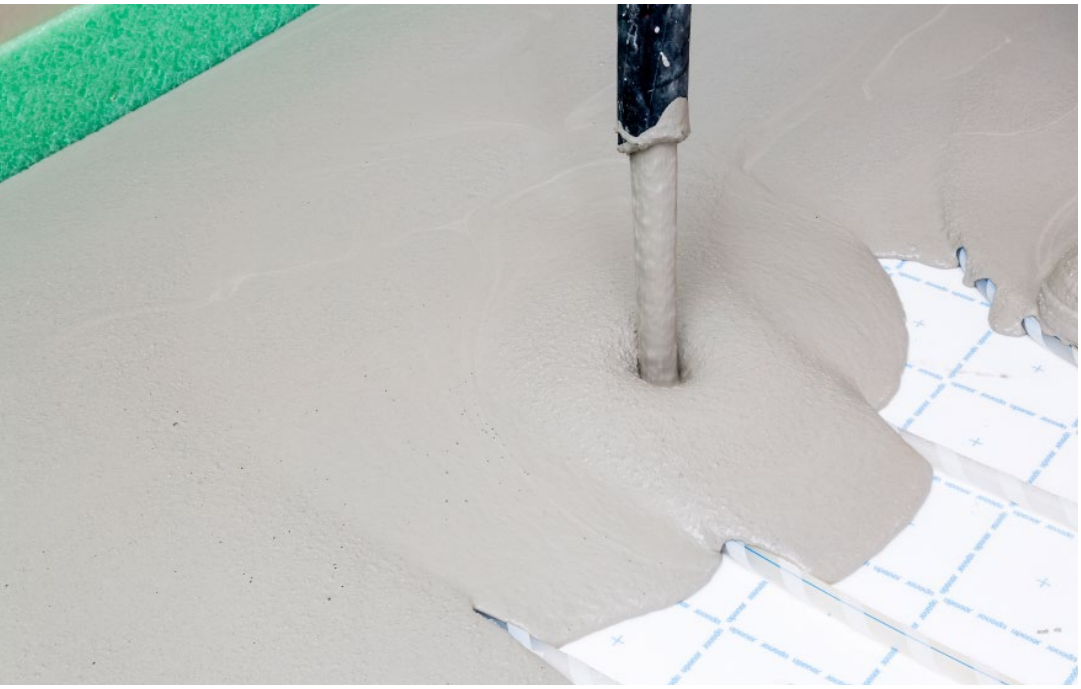

Floor Systems

F321.de

Product Data Sheet 10/2017

FE 25 A tempo

Fast setting calcium sulphate floor screed CAF-C30-F6

Product description

FE 25 A tempo floor screed is a factory-mixed dry mortar on a calcium sulphate basis intended for mixing with water. It consists of special gypsum, flow agents and aggregates (0 to 4 mm).

Quality classification acc. to EN 13813 CA-C30-F6

Storage

Dry mortar up to 6 months

Quality

In compliance with EN 13813, the product is subject to initial type testing and continuous factory production control and bears the CE marking.

Properties and added value

- Ideal for underfloor heating, short drying time
- High thermal conductivity
- Can be applied with machine
- High application performance
- Self-levelling
- Very low shrinkage and stresses
- Very quickly load capable
- No sinter layer
- Even surfaces with minimum joint requirement
- Controlled, constant quality

Field of application

FE 25 A tempo and its quick availability for floor covering is the ideal screed for construction sites with tight deadlines and for floors with enhanced tensile strength requirements, e.g. for schools and commercial applications.

It is used in interiors as:

- Floating screed, nominal thickness ≥ 35 mm
- Heating screed, nominal thickness ≥ 35 mm above the heating elements
- Screed on a separating layer, nominal thickness ≥ 30 mm,
- Bonded screed, nominal thickness ≥ 25 mm
- Screed as hollow floor, nominal thickness ≥ 30 mm.

Application

Preparation

For 40 kg of dry mortar (1 bag) approx. 7 l of clean water is required.

Mixing by machine

Fließestrich FE 25 A tempo is mixed with clean water in mixing pumps (e.g. PFT FERRO 100, PFT G 4 or similar) and pumped onto the prepared surface.

Application

Recommended spread Ø 45 cm, determined using a consistence checking tin 1.3 l on an even, non-absorbent surface.
No water should separate from the screed while spreading!
FE 25 A tempo levels to a horizontal flat surface when pitched with a screed brush or with a dappling bar.

Application time

Apply mixed mortar within about 40 minutes and level applied screed within about 10 minutes.

Application temperature / climate

Do not apply at room or substrate temperatures below approx. +5 °C.

Cleaning

With machine application, the machine and hoses must be cleaned within 30 minutes at the latest after machine standstill.

Movement joints

FE 25 A tempo floor screed expands slightly during hardening. Separate all adjacent vertical components from the screed using min. 8 mm thick edge insulation strips. Provide movement joints in door openings and if the diagonal length of the area is over ≥ 10 m.
Structural joints must be implemented at the same position across the full width in the screed. Press joints (construction joints) are permitted depending on the work progress, machine performance and building size. Further requirements and specifications (e.g. for heated screed) for joints are available in the IGE Code of Practice “Fugen in Calciumsulfat-Fließestrichen” (Joints in flowing calcium sulphate screeds).

Drying – Application of covering

Note	As a heated screed, FE 25 A tempo should be heated until dry before the floor covering is laid!

Heating up immediately after application

After the screed application process has been completed and the screed can be walked on after about 3 hours, windows and doors must be opened for ventilation purposes and the heating must be operated with a flow temperature of max. 55 °C.
Drying time with screed thickness

- 35 mm (type B) about 5 days
- 55 mm (type A) about 10 days
- At screed thicknesses ≥ 60 mm the heating period must be increased

Heat up of the hardened screed

If the screed cannot be dry heated immediately after application, start with 25 °C, hold this temperature for 1 day, then operate at the highest flow temperature (max. 55 °C).
Keep maximum heating temperature without lowering overnight until the screed is ready for covering.

Checking the drying process (foil)

Testing for residual moisture with applied foil or CM measurement. FE 25 A tempo is ready for covering as heated screed after the residual moisture has reached ≤ 0.5 CM-% for all floor coverings. Request the detailed heating up regulations with heating up report.

FE 25 A tempo is ready for covering without underfloor heating after the following residual moisture has reached levels

- ≤ 1.0 CM % for vapour permeable floor coverings
- ≤ 1.0 CM % for vapour-retardant floor coverings, e.g. tiles,
- ≤ 0.5 CM % for vapour-proof floor coverings and parquet flooring (CM measurement).

The drying time for screed thickness of 35 mm is approx. 8 to 14 days depending on the drying conditions.

Note	When hard enough for foot traffic (after about 3 hours) the windows and doors can be opened to ventilate and dry the screed. The drying time is, in addition to the screed thickness, mainly dependent on: Temperature, air humidity and air speed. Permanent ventilation is necessary for rapid drying. Additional heating (no gas burners permitted) accelerates the drying process.

Note	After coordination of trades with area heating and area cooling systems of the BVF, the measurement points for CM measurement must be arranged.

Note	For further information on planning and design of Knauf floor systems with Knauf flowing screed, see Technical Brochure F20.de.

Heating protocol for floor covering ready heating

Investor: **Building site:**	**Heating engineer:** **Site manager:**

Every change in the flow temperature (warm water heating) or floor thermostat setting (electrical heating) during heat up and cooling must be documented exactly to 5 °C.
Every drying test must be documented.

Heating system: **Screed applied on:**	**Average screed thickness:** mm **Coverage of heating element:** **min.:** mm **max:** mm

Heat up (coverage ready heating):

Date	Flow temperature / floor thermostat setting in °C	Signature

☐ **Ventilation**
☐ **Window ventilation**

Date from	Date to	Ø h per day

Preliminary drying test
(e.g. foil test [1])

Date	Dry yes/no	Signature

Drying test
(CM measurement)

Date	Residual moisture in %	Signature

Reduction of the flow temperature

Date	Flow temperature / floor thermostat setting in °C	Signature

Coverage ready heating completed

Date	Outdoor temperature in °C	Signature

Place / Date

Signature (Site manager)

Please keep this document!

1) Does not replace CM measurement before laying floor covering.

F321.de FE 25 A tempo

Fast setting calcium sulphate floor screed CAF-C30-F6

Technical data

Description	Unit	Value
Compressive strength (dry)	N/mm^2	> 30
Bending tensile strength (dry)	N/mm^2	> 6
Modulus of elasticity	N/mm^2	approx. 17000
Building material class	–	A1 non-combustible
Density, drying	kg/l	approx. 1.9
Density, wet	kg/l	approx. 2.1
Bulk density of dry material, bulk	kg/l	1.5
Application time	min	about 40
Walkable	h	after approx. 3
Can be loaded	h	after approx. 8
Free expansion when setting	mm/m	approx. 0.5
Thermal expansion coefficient	mm/(m·K)	approx. 0.011
Thermal conductivity λ_z	W/(m·K)	approx. 1.4
Yield from 100 kg dry mortar	l	approx. 54
Reaction of mortar	–	alkaline

The stated technical data were evaluated acc. to the respective test standards. Deviations under site conditions are possible.

Material requirement and efficiency

Material requirement	Consumption approx. in kg/m²
Per 1 cm screed thickness	19

Product range

Description	Packaging unit	Material number	EAN
FE 25 A tempo	Bulk	00005527	4003982155870
	40 kg	00005349	4003982000330

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