

Note on English translation / Hinweise zur englischen Fassung

This is a translation of the product 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.

Knauf Gips KG denies any liability for applications outside of Germany as this requires changes acc. to the respective national standards and building regulations.

KNAUF



Floor Systems

F421a.de

Product Data Sheet

2022-02



N 410 Flex

Gypsum-based fibre-reinforced floor filler compound from 3 to 10 mm

Product description

N 410 Flex is a fibre-reinforced factory-mixed dry mortar made of calcium sulphate, selected aggregates and additives to improve the application properties, ready to be mixed with water.

Calcium sulphate screed type CA-C25-F7 acc. to EN 13813.

Storage

Store the bags on wooden pallets in a cool and dry environment. Seal damaged and open bags airtight and use first. Can be stored for up to 18 months in the original unopened packaging.

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 wooden substrates and critical substrates
- Fibre-reinforced
- Easy to grind
- Can be applied in a single work step for a layer thickness of 3 to 10 mm
- Very low emission, EMICODE EC 1^{PLUS}
For details see www.emicode.com/en
- Very good flow characteristics
- Very low stress
- Suitable for use on heating screed
- Can be machine applied and pumped
- For interiors



Field of application

N 410 Flex is used as a composite leveller on stable wooden substrates, such as wooden flooring, parquet, wood chipboard (V 100 etc.), bare concrete slabs, calcium sulphate and cement based screeds and pre-fab floor screed.

For manufacturing smooth, offset-free floor surfaces, equalization of unevenness in the floor and divergences in dimension tolerance acc. to DIN 18202 before laying of ceramic tiles and floor slabs, marble and natural stone coverings, elastic floor coverings, carpets as well as parquet and laminate flooring.

With full surface filler application under parquet, the layer thickness must be at least 3 mm.

As a leveller on professionally sanded mastic asphalt screed surfaces of hardness classes IC10 and IC15 up to 5 mm layer thickness.

In areas subject to moisture (max. water action class W1-I) apply suitable composite sealing in acc with DIN 18534-1.

Do not use in wet rooms.

The requirements of the DIN 18365 apply for floor covering work.

For further information refer to the technical brochures [Knauf leveller and equalization compounds F42.de](#).

Application

Substrate and pretreatment

The maximum permissible moisture content of the substrate may not be exceeded.

Substrate	Maximum moisture content
Cementitious unheated	2.0 CM %
Cementitious heated	1.8 CM %
Calcium sulphate screed unheated	0.5 CM %
Calcium sulphate screed heated	0.5 CM %

The substrate must be firm, stable and free of cracks. Remove and roughen the surface of poorly consolidated and non-stable surface layers, extremely dense and smooth substrates and cement slurries. Separating layers, e.g. dirt, dust, grease, oil, paint remnants etc. must be removed beforehand.

Wooden substrates must be free of distortion, stable, in good condition and free of infestation. Spacing between beams maximum 60 to 65 cm, floorboard thickness minimum 22 mm. Wooden floors must be sanded and fastened by screws. Apply Spezialhaftgrund floor dispersion primer to wooden substrates.

Seal the wide floorboard joints with the respective filler or sealant. Attach perimeter isolating strips to connections to walls, columns, etc. A primer coat is recommended.

Suitable primers

Cementitious and calcium sulphate based substrates and pre-fab floor screeds

- Estrichgrund screed primer
- Schnellgrund primer
- Spezialhaftgrund
- FE-Imprägnierung

Dense substrates (e.g. tiles):

- Spezialhaftgrund bonding primer
- FE-Imprägnierung

Trial surfaces should be created in case of doubt or seek expert advice.

Mixing

Mix to a lump-free and application-ready consistence in a clean bucket with clean and cold water (6.0 l per 25 kg bag). A mixer with a speed of 600 RPM with a corkscrew, double-disk agitator or agitating basket is recommended.

Consistence for machine application

Adjust a suitable consistence using the flow test: max. flow diameter Ø 67 cm (determined with a 1.3 l checking tin, on an even, non-absorbent surface, e.g. foil, after 2 minutes flowing time). With larger layer thickness's the slump flow or the water quantity should be reduced if permitted by the levelling characteristics. During application, the material is self-levelling so that when the consistence of the floor filler is set to flow, subsequent finishing or grinding of the surface is unnecessary. Optimum extraction of trapped air and levelling of the material is achieved by working the surface with a spiked roller.

Observe the slurry spread rate when applied using a mixing pump.

Application

Pour the fresh mortar onto the prepared substrate and distribute using a finishing trowel or dappling bar to the required layer thickness. For the application on large areas, mix and pump N 410 Flex continuously with a PFT G 4 feed pump with attached PFT ROTOMIX disc or PFT agitator. Observe the machine manufacturer's specifications. Material that has already started to harden should not be mixed with additional water or stirred again.

Application temperature / climatic conditions

Do not apply at room or substrate temperatures below 5 °C and exceeding 30 °C. The best temperature range for application is between 15 °C and 25 °C. High temperatures speed up the hardening time while low temperatures slow down the hardening process (take temperature of the mixing water into account as well).

Note	Old adhesive remnants, soft or residual tacky layers must therefore be removed from old substrates before priming and filling. The setting product should be protected against direct sunlight, draughts, frost, driving rain and temperatures that are too high (> 30 °C) and too low (< 5 °C).
-------------	---

Application time

The mixed floor equalization compound must be applied within approx. 30 minutes and must be levelled within approx. 20 minutes.

Cleaning

Clean containers, tools, etc. with clean water immediately after use. In the hardened state, only mechanical cleaning is possible. With machine application, the machine and hoses must be cleaned within 20 minutes at the latest after machine standstill.

Technical data

Name	Standard	Unit	N 410 Flex
Reaction to fire	EN 13501-1	Class	A2 - non-combustible
Layer thickness	–	mm	3 – 10
Hard enough for foot traffic after	–	h	approx. 2
Ready to cover at residual moisture (check with CCM tester)	–		
■ For vapour-tight coverings		CM-%	≤ 0.5
■ For vapour permeable coverings/tiles		CM-%	≤ 1.0
Ready for floor covering with (20 °C, 65 % relative humidity)	–		
■ Tiles			
▪ Up to 2 mm layer thickness		d	1
▪ Up to 10 mm layer thickness		d	5
■ Vapour-tight coverings			
▪ Up to 2 mm layer thickness		d	3
▪ Up to 10 mm layer thickness		d	8
Strengths after 28 days	–		
■ Compressive strength		N/mm ²	> 25
■ Flexural strength		N/mm ²	> 7
Chair roll resistance from thickness	–	mm	3
Density	–		
■ Mortar (wet)		kg/l	approx. 1.9
■ Mortar (dry)		kg/l	approx. 1.7
Water quantity with agitator application (25 kg bag)	–	l	approx. 6.0
Machine application flow test 1.3 l PFT Test Can	–	cm	≤ 67
Application time	–		
■ Pot life		min	approx. 30
■ Work life on the surface		min	approx. 20

The technical data refers to 20 °C and 50 % relative air humidity. Low temperatures delay setting, higher temperatures speed it up.

Material requirement and efficiency

Layer thickness	Consumption approx. in kg/m ²
Per mm	1.6

Product range

Name	Application	Packaging unit	Material number	EAN
N 410 Flex	25 kg	42 bags / pallet	00532483	4003982380494

Sustainability and environment

Short description	Unit	Value
Requirements of the German AgBB-scheme	–	fulfilled
Complies with the requirements of the French emission class	–	A+
Certificates	–	Emicode EC1 ^{PLUS}

**Observe safety data sheet!**

For safety data sheets and CE marking see
pd.knauf.de



Videos for Knauf systems and products can be found under the following link:
youtube.com/knauf



The Knauf Infothek App now provides all the current information and documents from Knauf Gips KG at any time and in every location in a clear and comfortable way.

knauf.de/infothek

Knauf Direct

Technical Advisory Service:

▶ knauf-direkt@knauf.com

▶ www.knauf.de

Knauf Gips KG Am Bahnhof 7, 97346 Iphofen, Germany

All technical changes reserved. Only the current printed instructions are valid. The stated information represents current state-of-the-art Knauf technology. The entire state of approved engineering rules, appropriate standards, guidelines, and rules of craftsmanship are not included herewith. These and all application instructions have to be adhered to separately by the installer. Our warranty is expressly limited to our products in flawless condition. All application quantities and delivery amounts are based on empirical data that are not easily transferable to other deviating areas.

All rights reserved. All amendments, reprints and photocopies, including those of excerpts, require our expressed permission.