

Floortec 2K-Mineralico SL 470



Two-component, self-leveling, creative plaster floor, colored, for interior use, with Floortec Hardener 471



Color System

Field of application

For colored interior floor surfaces resistant to light to medium stress from foot and light dolly traffic. Examples for applications are living areas, restaurants, shop fitting, offices and meeting rooms. Can be used in system build-up with Floor Leveling Compound C15 3116 or Floor Leveling Compound FX 3109 on intact mineral-based substrates concrete (C), cement screed (CT) and calcium sulfate screed.

Properties

Two-component mineral plaster floor with customizable look and outstanding leveling characteristics, for interior use. Fast-hardening, low odor, diffusible, particularly low surface tension and "nichtbrennbar" (noncombustible). Also suitable for floor surfaces with hot water floor heating as well as for exposure to chair casters (type W in accordance with DIN 12529). Each floor coating results in a unique surface that cannot be reproduced (see "Individuality of coating" information). Tested in a system build-up as a slip-resistant coating with Slip Resistance Class R 10 or R9 in accordance with the test certificate

Material description

Color shades	60 color shades using the Brillux Color System in accordance with the color card.
Gloss grade	matt, with system sealer silk matt or silk-glossy
Base material	cement with mineral filler material
Density	Approx. 1.9 g/cm ³
Film thickness	2 - 3 mm
Compressive strength	approx. 30 N/mm ² after 28 days
Flexural strength	approx. 6 N/mm ² after 28 days

Material description

Resilience to chair casters in accordance with EN 425

Chair caster suitable in accordance with DIN 12529, type W (soft)

Floor heating

Can be used with hot water floor heating up to + 28 °C, except for thin layer heating.

Reaction to fire

A2fl-s1 in accordance with EN 13501-1

Categories of use in accordance with EN 685

Class 21, domestic areas with moderate/light usage



Class 22, domestic areas with general/medium usage



Class 23, domestic areas with heavy usage



Class 31, commercial areas with moderate usage



Class 32, commercial areas with general usage



Registered utility patent

DE 20 2012 010 394.6

Packaging

20 kg bucket, pre-tinted (hardener in separate container)

Floortec Hardener 471



Special hardener for Floortec 2K-Mineralico SL 470

Field of application

Only for mixing with Floortec 2K-Mineralico SL 470.

Properties

Special system hardener. The container size has been adapted to the mixing ratio with Floortec 2K-Mineralico SL 470.

Material description

Color shade	white
Base material	Special cement mixture
Packaging	5 kg bag, for 20 kg Floortec 2K-Mineralico SL 470 (base component in separate container)

Implementation planning Always take object parameters (e.g., the size and shape of area and the desired appearance of the surface, temperature) into consideration before implementing coating work. To ensure smooth and rapid application, we recommend working in a team consisting of several workers and increasing the team size, as required. Before beginning the coating work, all required containers of the basic material Floortec 2K-Mineralico SL 470 must be stirred in order to minimize the time required for mixing during ongoing coating work. In addition, particularly large areas should be divided into partial areas that are worked on in sequence with intermediate drying. The size of the partial area is determined by the daily output that can be accomplished by the workers, which also depends on the object parameters and team size. Mask the partial area on which the coating work is to take place and remove the masking tape as soon as the coating has dried to a matt finish and is dry to the touch. When the area has dried overnight, the adjacent partial area can be coated. After drying, the area divisions remain visible, but this is not considered to be a technical defect.

Recommended minimum number of workers for applying 2K-Mineralico SL 470

Size	Total number of workers *	For mixing and transport	For application and leveling	For resmoothing/ designing
Up to approx. 100 m ²	4	2	1	1
Up to approx. 200 m ²	7	3	2	1 - 2
Up to approx. 500 m ²	9	4	3	2
Up to approx. 1000 m ²	12	5	4	2 - 3

* The data pertain to the single-colored implementation. In case of a two-colored implementation, schedule 1 to 2 additional persons in each case.

- Storage period** Mix and apply delivered pre-tinted material within 2 weeks. After a storage period of 2 weeks, shake the tinted material as well as untinted base material again thoroughly.
- Mixing ratio** 4 parts by weight of Floortec 2K-Mineralico SL 470 with 1 part by weight of Floortec Hardener 471 (Container sizes have been adjusted accordingly.)
- Mixing** Cover floor surfaces in mixing area carefully to avoid soiling of areas still to be coated. Using a suitable, high-performance single- or double-spindle stirrer (min. 1,300 W), stir basic material Floortec 2K-Mineralico SL 470 thoroughly before adding hardener. Add Floortec Hardener 471 in the specified mixing ratio immediately before applying. Empty the hardener container completely. Mix the components with a suitable high-performance stirrer (min. 1,300 W) until a lump-free, fluid compound is achieved. Continue stirring in the hardener for a minimum of 2 minutes so that all components are sufficiently mixed. Remove any dried cement residue from the container rim. Recommended stirring devices: e.g. Collomix mixer Xo 4 (Nr. 3347.0004) with Collomix mortar mixing tool DLX 152 HF (Nr. 3347.0152).
- Thinning** Do not dilute. Immediately apply the mixed material.

Tinting	Do not tint. The product is delivered as a tinted mixture. Different color shades can be applied together depending on desired look and colorfulness.
Compatibility	Can only be mixed with Floortec Hardener 471.
Application	Pour the material onto the pre-treated substrate immediately after mixing, and use Metal Floor squeegee 1324 to spread it evenly. Always empty the containers completely. To spread the material, clamp two Double-edge Notches Blades 1326 into the Metal Floor Squeegee 1324 or use the Metal Floor Squeegee 1324 with matched tothing (TKB R3 for approx. 2 mm film thickness) and correspondingly adjusted pins. Re-smooth (texture) the spread filler material with a Surface Filler Knife 1828 with handle socket or a Venetian Trowel 1764, to create an individual design. It is best to work diagonally or in a diagonal direction. Do not level at right-angles or linearly. The size of the tool determines the character of the texture. The smaller the tool, the more concise the texture pattern.
Aftertreatment	After drying, usually starting on the following day, re-treat the areas created with Floortec 2K-Mineralico SL 470. To avoid damaging the still relatively sensitive decorative filling, use only shoes with clean tread and additional shoe covers for walking on these areas. Use appropriate, low-speed rotary disc machine (approx. 150-160 RPM) and a green sanding pad (Nr. 3694.0400.0001) for aftertreatment. The purpose of the aftertreatment is to compress the surface and prepare for subsequent sealing work. Then vacuum the dust off the areas with a vacuum cleaner.
Open time (at +20 °C)	15 min. maximum. Increased temperature will reduce application time. Do not further stir, dilute or apply material that has already hardened or is in the hardening phase.
Consumption	Approx. 4.5 – 5 kg/m ² (incl. Floortec Hardener 471) for a standard film thickness of 2 – 3 mm. Coverage approx. 5 m ² /container including hardener. Determine the exact consumption by means of a test application on the object to be coated.
Application temperature	Room and air temperature: Min. +15 °C to max. +25 °C. Substrate and material temperature: Min. +15 °C to max. +22 °C. Take the dew point temperature into consideration. Work at least 3 °C over the dew point. Relative humidity: Min. 45 % to max. 80 %. Deviating conditions can reduce the material effect and/or influence the open time. Avoid exposure of the surface to be coated to direct sunlight, drafts, etc. during application and drying (pay attention to the information in the note).
Residual moisture	Pay attention to residual substrate moisture, particularly for thick or multi-layer leveling coats, and allow longer drying times, if necessary.
Tool cleaning	Clean tools immediately after use with water and wetting agent.

Drying (+20 °C, 65 % relative humidity)

Hydraulic and physical drying. After approx. 2 hours, the surfaces can be carefully walked in socks with overshoes, for example, in order to remove masking tape. After approx. 12 hours, the surfaces can be recoated or polished and further treated with primer and sealer. In event of lower temperatures and/or higher humidity, allow a longer drying time.

Storage

Store in a cool, dry and frost-free location. Reseal opened containers tightly. After having been stored for 2 weeks, the tinted material must again be reshaken thoroughly. Only stirring – even with a powerful stirrer – is insufficient.

Declaration

Note Contains preservatives.

Product code BSW20 (of the ready-for-use mixture)
Comply with the specifications in the current Safety Data Sheet.

Coating build-up

Substrate preparation

- To prevent mechanical damage, all other work should be finished, if possible, before beginning the application.
- The substrate must be stable, permanently dry, clean, with good adhesiveness, load-bearing, dimensionally stable and free of separating agents or other intermediate layers detrimental to bonding.
- As a rule, the substrate must comply with constructional standards.
- Substrate must be protected against rising moisture.
- The minimum average adhesive tensile strength must be 1.5 N/mm². Depending on the degree of surface exposure, a minimum substrate strength is required. For a light degree of surface exposure, e.g. simple stress from being walked on and/or minor driving traffic with light hand trucks with rubber tires, the required min. strength category is CT 30, C 20/25 or C 30. For a medium degree of surface exposure, e.g. moderate stress from being walked on, the minimum required strength category is CT 40, C 30/37 or CA 40. The maximum permissible residual substrate moisture level must not be exceeded.
- For heated cement screed ≤ 1.8 CM% and for unheated ≤ 2.0 CM%. For heated calcium sulfate screed ≤ 0.3 CM% and for unheated ≤ 0.5 CM%.
- All existing layers such as bitumenous, water-swallowable, and other soft layers must be completely removed.
- Remove non-load-bearing layers by, e.g., milling, sanding or abrasive blasting.
- Sand down and thoroughly vacuum smooth or dense substrates.
- Use a machine with grain size 16 to slightly sand calcium sulfate-bonded screeds and remove dust with a vacuum. Please note the information leaflet published by the Bundesverband Estrich und Belag e. V. (BEB) (Federal Association for Screeds and Coating).
- Remove forming oil and cement slurry from concrete surfaces, roughen vacuum concrete.
- The substrates must be prepared, leveled out with Floor Leveling Compound 3115 and primed twice with Multi Floor Primer LF 3084, diluted 1 : 1 with water. If not available, cover all adjacent vertical structural components around the perimeter with Perimeter Insulation Strip SK 3018.
- See also VOB Part C, DIN 18365, Section 3.

System build-up Floortec 2K-Mineralico SL 470

Substrate	Priming and filling ¹⁾	Intermediate priming	Coating and aftertreatment	Priming	Sealing ²⁾
Concrete and cement screed	Priming and filling in the coating build-up with Floor Leveling Compound C15 3116 or Floor Leveling Compound FX 3109, Layer thickness ≥ 3 mm	2x Multi Floor Primer LF 3084, 1:1 water-diluted	Floortec 2K-Mineralico SL 470, Aftertreatment with single-disc machine and green sanding pad	Floortec 2C Epoxy Primer 473	2x Floortec 2K-Purolid T 876 or 2x Floortec 2K-Purolid T 877.
Calcium sulfate-bonded screed (Anhydrite flowing screed, plaster screed)					

1) Follow the instructions on system build-up and application in the “Floor Leveling Compound C15 3116” and “Floor leveling Compound FX 3109” Data Sheets.

2) For a slip-resistant application follow the instructions in the data sheets of Floortec 2K-Purolid T 876 or Floortec 2K-Purolid T 877.

Notes

Contiguous surfaces Only coat contiguous areas with material from the same batch.

Hairline cracks and pores In Accordance with the BEB data sheet No. 8.8 "Design floors" (version of September 2014), cracks and pores cannot be ruled out in mineral building materials despite compliance with all technical rules and taking the utmost care in the implementation.

Individuality of coating Each implementation with Floortec 2K-Mineralico SL 470 is a unique creation. Surfaces created once cannot be reproduced. Even conditions prevalent at the time of application, such as temperature, humidity, insolation, etc. impact the surface and development of the effect. Test areas created in advance can only be used for rough orientation and evaluation of the approximate color shading obtained. The individual artisanal implementation is another reason that details of the effect achieved on the entire surface and the result of the implementation cannot be predetermined. Differences in the effect of color shades, surface textures and similar features are desired and unavoidable. They are part of the individual design of mineral-based design floor surfaces.

Damage to appearance Ingredients of organic substances (e.g. tea, coffee, red wine, plant parts, leaves, etc.) and chemicals such as disinfecting agents and acids can lead to changes in color shades of the coating. Exposure to the effects of sanding may lead to scratches in the surface. These changes in appearance do not influence function.

Joints	The type and arrangement of joints is to be specified by the planner and documented by a joint plan. See DIN 18560, Parts 2 and 4 for more information. Particular care must be taken in planning a procedure for joints in door areas and individually adjustable heating circuits in heated floor constructions. Further information in the BEB Data Sheet No. 5.2 "Information for joints in screeds, Part 2".
Floor heating	In case of heated floor constructions, turn the floor heating down to between +15 and 18 °C at least 3 days before the commencement of work. This temperature range must also be maintained for 7 days after coating. Subsequently, the operating temperature may not exceed +28°C.
Avoid sunlight	Avoid direct sunlight through large window fronts or floor-level windows on the surfaces to be treated. Close venetian blinds or cover window fronts.
Cover the finished surfaces	The finished surfaces should be covered only with water-vapor-permeable coverings, such as felt board or nonwoven without film lamination. The curing process of the mineral filler material must not be impaired. Any accumulation of moisture under the covering material should be avoided.
Use and surface stress	Sealers and coatings on floor surfaces are subject to use-related wear. The individual service life essentially depends on the film thickness and intensity of surface strain. Exposure to the effects of abrasive stresses (such as those due to hard chair casters, sand, chips, metal shavings, etc.) may result in light-colored, even whitish scratches and scoring in the surface and have a negative impact on the appearance. Intensity and visibility depends on the color shade selected. We recommend using suitable polycarbonate protective mats in areas that are subject to chair castor stress.
Cleaning and Maintenance	Refer to "Cleaning and Maintenance Instruction 470p" included as a separate specification for implementation for floors trowel-finished with Floortec 2K-Mineralico SL 470. When the cleaning and maintenance instruction has been given to the customer, the "flooring professional" has fulfilled his obligation in accordance with DIN 18365.
Planning and Implementation Guide	A separate Planning and Implementation Guide is available for the application of Floortec 2K-Mineralico SL 470. This guide contains general planning instructions, a list of materials and tools as well as detailed information on setting up the work site, personnel planning and the application of Floortec 2K-Mineralico SL 470 including figures and notes.
Further information	Follow the instructions in the data sheets of the products used.

Remark

This data sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

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