

PRODUCT DATA SHEET

Sikafloor®-412 Level FR

CEMENTITIOUS FLOOR TOPPING FOR CAR PARKS AND INDUSTRIAL FLOORS

DESCRIPTION

Sikafloor®-412 Level FR is a pre-packed high performance fiber reinforced cement based mortar with low shrinkage, ideal for car parks and industrial floor toppings (overlayment) without the usage of steel reinforcement.

USES

- Topping and levelling of undulated floors
- Overlayment of exposed areas
- Rectification of car parks and industrial floors
- Suitable for interior and exterior application
- Resurfacing of old and worn concrete floors
- Levelling prior to the application of carpets, vinyl floors etc.

CHARACTERISTICS / ADVANTAGES

- Superior workability
- Power floatable to achieve flat floor requirements
- Excellent adhesion to concrete
- Can be applied from 10 mm to 50 mm thickness in one layer
- Very low shrinkage behaviour
- Does not require steel reinforcement
- Low permeability
- Trafficable

PRODUCT INFORMATION

Chemical Base	Cementitious
Packaging	25 kg bag
Appearance / Colour	Grey Powder
Shelf Life	12 months from date of production
Storage Conditions	Store properly in undamaged original sealed packaging, in dry conditions. Protect from moisture and rain.
Maximum Grain Size	2.2mm

TECHNICAL INFORMATION

Compressive Strength	> 52 N/mm ²	(ASTM C109/109M: 2020b)
Tensile Strength in Flexure	> 8 N/mm ²	(ASTM C348: 2020)
Tensile Adhesion Strength	> 1.6 N/mm ²	(BS EN 1015-12: 2016)
Shrinkage	< 0.06%	ASTM C531: 2018

SYSTEM INFORMATION

System Structure	Bonding Agent	Sikadur®-732
	Floor Topping	Sikafloor®-412 Level FR

Sikafloor®-412 Level FR Level can be overcoated with Sikafloor® solutions for concrete slabs, eg. Epoxy and PU coatings. Please consult Sika Technical Service Department.

Sikafloor®-412 Level FR is power floatable after ~4 hours. Site trials are mandatory.

APPLICATION INFORMATION

Mixing Ratio	3.5 - 4.1 Liter of water to 25Kg		
Fresh mortar density	2.1 +/- 0.1 g/cm ³		
Consumption	Bonding Agent	Product	Consumption
		Sikadur®-732	0.3 – 0.8 kg/m ² depending on substrate condition
	Floor Topping	Sikafloor®-412 Level FR	~2.1 kg per mm thick per m ²
Layer Thickness	10 mm min. / 50 mm max.		
Ambient Air Temperature	+6 °C min. / +40 °C max		
Substrate Temperature	+6 °C min. / +40 °C max		
Pot Life	~30 minutes at +23 °C		
Waiting Time / Overcoating	28 days for general epoxy and PU coatings		

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- Protect the mortar from early hydration using a curing compound or wet-hessian.
- Refer to the Method Statement for floor toppings using Sikafloor®-412 Level FR system for more information
- Sikafloor®-412 Level FR Level is not self-levelling
- Avoid application under direct sun and/or strong wind
- Do not add additional water when mixing Sikafloor®-412 Level FR
- Apply only to sound and well prepared substrate
- Do not add additional water during the surface finishing phase as this will cause discoloration and cracking
- Do not use additional floor hardeners (dry shakes) while power floating

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SOS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete

The concrete shall be free from dust, loose material, surface contamination and materials which reduce bond. Delaminated, weak, damaged and deteriorated concrete and where necessary sound concrete shall be removed by suitable means.

Steel reinforcement

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to SA 2 (ISO 8501-1).

Bonding primer

Apply Sikadur®-732 (refer to the relevant Product Data Sheet).

MIXING

Pour the water in the correct proportion into a clean mixing container. While stirring slowly, add the powder to it. Mix thoroughly for a minimum of 3 minutes.

Sikafloor®-412 Level FR can be mixed with a low speed (<500 rpm) hand-drill mixer fixed to a mixing paddle or using a force-action mixer, 2 to 3 bags or more at once depending the type and size of mixer.

APPLICATION

Priming

Apply 2-part epoxy bonding agent, Sikadur®-732 at 0.3–0.8 kg/m² depending on substrate condition. Ensure that the bonding primer is still tacky when the floor topping material is applied (wet on wet technique). If the primer has hardened, apply another fresh layer before laying the topping material.

Floor topping

Pour Sikafloor®-412 Level FR. Level off and tamp with a straight edge. Smoothen the surface using a bull float. For the edges and confine areas, use a trowel.

Power floating

The floor can be power floated after approx 4 hours depending on ambient conditions. Trials are mandatory.

CLEANING OF TOOLS

Clean all tools and application equipment with water immediately after use. Hardened material can only be mechanically removed.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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Product Data Sheet

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