

Sikafloor® Level-30

High performance, self-levelling and fast drying compound for interior or exterior use up to 30mm

Product Description	Sikafloor Level 30 is an all-purpose high polymer modified, self-levelling compound for interior and exterior applications meeting the requirements of class R3 according to EN 1504 – 3.
Uses	<ul style="list-style-type: none">• Industrial medium to high load (heavy-traffic + forklift pallet truck with impact load)• Suitable for use with under floor heating systems• Suitable for structural strengthening (principle 4, method 4.4 of EN 1504-9)• Suitable for restoration work (Principle 3, method 3.1 of EN 1504-9)
Advantages	<ul style="list-style-type: none">• Self smoothing and highly fluid• Easy to apply by pump or manual application• High strength > 40Mpa• Good workability and pot life• Fast setting and drying• 3-4 hours walk on time (+20°C)• Used as a finished surface• Low VOC
Approval / Standards	<p>Initial type tests and factory production control carried out by Test Laboratory HARTL, in Seyring, Austria.</p> <p>Fire rating report, Ref. MA 39 – VFA 2009-1114.01 dated 24/08/2009 by the Testing, Monitoring and Certification Authority of the City of Vienna. Municipal Administration Department 39. VFA – Technical Construction Laboratory.</p> <p>Conforms to the requirements of EN 13813 CT – C40 – F10 – A12</p> <p>Conforms to the requirements of EN 1504-3 for principles 3 (CR), 4 (SS) and 7 (RP) as R3 mortar.</p>
Product Data	
Colours	Powder - Standard grey
Packaging	20kg bags
Storage & Shelf Life	Nine months from date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +30°C.
Technical Data	Polymer modified rapid hardening cement.
Chemical Base	1.25kg/l ± 0.05 (bulk powder) 2.00kg/l ± 0.03 (fresh mortar)
Density	3mm min. / 30 mm max.
Layer Thickness	$\alpha \approx 16.3 \cdot 10^{-6}$ per °C (EN 1770) (Temperature range: -20°C to +40°C)
Thermal Expansion	

Construction



Coefficient	W ≈ 0.5kg / (m ² x h ^{0.5})	(EN 13057)
Water Absorption Coefficient W		
Fire Rating		

Mechanical / Physical Properties

Requirements according to EN 1504-3

	Results (ITT)	Requirements (R3)	Test methods
Compressive strength	40.2 N/mm ² (MPa)	≥ 25 N/mm ² (MPa)	EN 12190
Chloride ion content	0.0152%	≤ 0.05%	EN 1015-17
Adhesive strength	2.2 N/mm ² (MPa)	≥ 1.5 N/mm ² (MPa)	EN 1542
Controlled shrinkage	1.83 N/mm ² (MPa) average	≥ 1.5 N/mm ² (MPa)	EN 12617-4
Carbonation resistance	NPD (see foot noted, table 1, EN 1504-3)	d _k ≤ control	EN 13295
Elastic Modulus	15.1 GPa	≥ 15 GPa	EN 13412
Skid resistance	Class III	Class I : > 40 units wet tested Class II : > 40 units dry tested Class III : > 55 units wet tested	EN 13036-4
Thermal Compatibility Part 1: Freeze-Thaw	2.25 N/mm ² (MPa)	≥ 2.0 N/mm ² (MPa)	EN 13687-1
Capillary Absorption	0.5 kg*m ⁻² *h ^{-0.5}	≤ 0.5 kg*m ⁻² *h ^{-0.5}	EN 13057

Compressive Strength	> 18 N/mm ² (after 24 hours / +20°C)	(EN 13892-2)	
	> 40 N/mm ² (after 28 days / +20°C)	(EN 13892-2)	
Flexural Strength	> 3 N/mm ² (after 24 hours / +20°C)	(EN 13892-2)	
	> 10 N/mm ² (after 28 days / +20°C)	(EN 13892-2)	
Slip Resistance	Slip Resistance Values	(ENV 12633:2003)	
	Substrate	SRV Dry	SRV Wet
	Sikafloor Level-30	75	55
Abrasion Resistance	TRRL Pendulum, Rapra 4S Slider		
	Class A 12	(EN 13892-3)	
	(12 cm ³ / 50 cm ² wear) acc. to Böhme		
	AR 0.5	(EN 13892-4)	
	(< 50 µm) acc. to BCA		
	RWA 100	(EN 13892-5)	
	(< 100 cm ³) acc. to RWA		

Resistance

Thermal Resistance Suitable for use with under floor heating systems

System Information

System Structure

Levelling:

Apply neat product to the required thickness 3 - 30mm.

- Sikafloor Level 30 can also be extended for self-levelling between 15-50mm
Mix design: 15-50mm > 20kg Level 30 & 5 kg of 2 – 5mm clean aggregates.

Ramping and filling mortar:

Sikafloor Level 30 can also be extended for use as a ramping and heavy section filling / repair mortar 30-80mm.

Mix design: 30-80mm > 20kg Level 30 & 5-7 kg Sikadur 505 Silica sand.

Application Details

Consumption / Dosage

~ 1.8 ± 0.05 kg/m²/mm

This figure is theoretical and does not include for any additional material required due to surface porosity, surface profile, variations in level or wastage etc.

Substrate Quality

The concrete substrate must be sound and of sufficient compressive strength (min. 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

If in doubt apply a test area first.



Substrate Preparation / Priming

Concrete substrates must be structurally sound, clean, mechanically prepared, and free of any sign of hydrostatic pressure, surface contaminants and dust for Eg.

Any repairs to the substrate must be carried out by using appropriate products from the SikaTop, Sika MonoTop, Sikafloor, SikaDur and Sikagard range of materials. For product selection advice please speak with a Sika Technical Representative in your state.

- For interior & exterior low to medium vehicle traffic application use Sikafloor 01 Primer. Apply Sikafloor Level 30 once primer is dry.
- For heavy traffic (forklifts) and exterior applications use Sikafloor Epocem Module A + B. Apply Sikafloor Level 30 to tacky surface not wet. A second application may be necessary on particularly porous surfaces that absorb the initial prime completely.
- For heavy traffic (forklifts) but very porous or heavily damaged concrete with pitting, interior & exterior use Sikadur 32. Apply Sikafloor Level 30 to tacky surface not wet.

Sika recommends reading the most recent Product Data Sheet relevant to the chosen primer before applying.

Application Conditions / Limitations

Substrate Temperature +8°C min. / +30°C max.

Ambient Temperature +8°C min. / +30°C max.

Substrate Moisture Content The substrate can be in a SSD condition, but there must be no rising moisture prior to the dampening operation according to ASTM D 4263 (Polyethylene-sheet test).

Relative Air Humidity < 75% max.

Beware of condensation!

The substrate and uncured floor must be at least 3°C above dew point to reduce the risk of condensation, blooming or cement laitance on the floor finish.

Application Instructions

Mixing When mixing manually place 3.7-3.9 litres of cool water into a suitable sized vessel. Add a full bag (20kg) of Sikafloor Level-30 powder slowly to the water, mixing continuously.

Mixing Time Mix thoroughly for 2 – 3 minutes.
Leave the material to stand in the container for 1 – 2 minutes until the majority of air bubbles have dispersed.

Mixing Tools Use an electric stirrer (< 500 rpm).

Application Method / Tools *Pump:*
Use a conventional floor screed dual stage mixer and pump and control the water dosage to achieve the required flow, measuring the final average flow diameter on a flat, clean, dry flow table.



(Application continued)	Cylinder according to EN 12706:2000 Internal diameter: 30mm Height: 50mm	ASTM C 230-90 / EN 1015-3 Top internal diam: 70mm Bottom internal diam.: 100mm Height: 60mm
	Flow = 130mm ± 5mm (5.25 litre per 25kg)	Flow = 340mm ± 10mm (5.25 litre per 25kg)

Pour or pump Sikafloor Level 30 then spread with a long handled gauged rake, screed bar, or steel trowel to give the required finish & thickness. For small touch-ups use a flat steel hand trowel. Sikafloor Level 30 can be applied up to 30mm thick in one application. The use of a spike roller is recommended directly after placement to remove any trowel marks and entrapped air.

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

Cleaning of Tools

Potlife

Conditions	Time
+23°C / 50% r.h.	25 minutes

The temperature will affect the pot life.

Application at temperatures above +23°C will reduce the pot life and the working time. Temperatures below +23°C will increase the pot life and extend the working time.

Suitable for overcoating with impermeable or moisture sensitive coatings after :

Waiting Time / Overcoating

Product thickness	Waiting time
Layer thickness up to 15mm:	~ 24h
Layer thickness up to 30mm:	~ 48h
Layer thickness (extended) up to 50mm:	~ 72h

Times are approximate and at +23°C and 50% r.h. and thus will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.

When overcoating Sikafloor Level 30 always ensure the moisture content has achieved the required value for the coating product, as the waiting time will vary with the application thickness and ambient humidity.

(Refer to the top coat product data sheet)



Notes on Application / Limitations

Very absorbent substrates must be saturated with water or primed to prevent loss of the mixing water into the substrate and which can cause problems such as shrinkage, the appearance of surface pores or weak and dusty surfaces etc.

Do not mix with other cements or cement based screeds.

No loading for at least 3 hours.

Freshly applied Sikafloor Level-30 must be protected from damp, condensation and water for at least 24 hours.

Do not exceed the recommended water dosage. Do not add more water when the product is starting to set.

Do not exceed the recommended thicknesses.

Due to the natural variability of the raw materials of the self-levelling screeds, the finished surface may present some colour variations.

To ensure optimum of colour consistency, it is essential that the floor laying operation is as clean and protected from the environment as possible.

The surface must be sealed for a final floor finish when applied outside for best curing and aesthetic appearance.

Temperatures below +20°C extend the drying times.

Not suitable for slopes or inclines > 0.5%.

Protect from direct sunlight, hot or strong winds and extremes of temperature to avoid cracking or crazing. These small superficial hairline cracks or crazing is normal occurrence under these conditions and do not constitute a reason for claim.

When overcoating with SikaCeram or Sikabond adhesives (or others), or Sikafloor resins, additional mechanical preparation may be required to remove any cement laitance which may have formed during application due to excessive water in the mix or high ambient moisture causing bleeding.

The thickness of the levelling mortar has to be at least 4mm when using water-based adhesives under impermeable or vapour tight floor finishes.

Curing Details

At +20°C and 50% r.h.

Foot traffic	~ 3 hours
Lightly serviceable	~ 24 hours
Fully serviceable	~ 7 days

Applied Product ready for use

Note: Times are approximate and will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.

Value Base

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.

Health and Safety Information

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

Sentences required according to Blue Angel seal scope of use:

- Keep out of reach of children
- Ensure good ventilation during and after application and drying
- Avoid eating, drinking or smoking while processing this product
- In case of contact with eyes or skin rinse immediately with plenty of water.
- Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil
- Only properly emptied containers may be recycled. Dried product residues can be disposed of as normal household waste
- Wear protective gloves
- Storage conditions: Keep in dry and cool place. Reseal container tightly immediately after use



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.

