PRODUCT DATA SHEET

Sika® Levelling Compound

High performance, floor levelling and fast drying, cementitious screed for indoor use 6mm to featheredge. Domestic to Light Commercial.

PRODUCT DESCRIPTION

Sika® Levelling Compound is a 1-part ready to use protein free cement based self leveller for floor smoothing and levelling uneven rigid internal floors prior to applying final wearing coverings such as carpets, sheet vinyl, lino, tiles, laminates and timber.

USES

Sika® Levelling Compound is a floor levelling compound to level or smooth screeds and concrete floors at a thickness between 6mm to featheredge. Suitable for foot traffic only.

CHARACTERISTICS / ADVANTAGES

- Self smoothing and highly fluid
- Easy to place by pump or manual application
- Ready for use.
- Low shrinkage.
- Maintains good workability and joint healing throughout its pot life
- Fast setting and drying
- 2 -4 hours walk on time (+20°C)
- Good surface appearance and hardness
- Excellent freeze-thaw salt resistance
- Protein and formaldehyde free
- Underfloor heating applications beneath heating cables/pipes or on top of heated screeds

Substrate Moisture Content	The substrate can be in a SSD (saturated substrate dry) condition, but there must be no rising moisture prior to the dampening operation according to ASTM D 4263 (Polyethylene-sheet test) For further information please refer to the Product Data Sheet of the primer used.
Dew Point	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.

APPROVALS / STANDARDS

Conforms to the requirements of EN 13813 C30 – F7.

PRODUCT INFORMATION

Chemical Base	Rapid hardening cement.
Packaging	25kg bag
Appearance / Colour	Grey Powder
Shelf Life	9 months from date of production if stored correctly.

Storage Conditions	Store properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5°C and +35°C.
Density	2.09 kg/l ± 0.03 (fresh mortar)

TECHNICAL INFORMATION

Compressive Strength	> 15 N/mm² (after 24 hours / +20°C) > 30 N/mm² (after 28 days / +20°C)	(EN 13892-2) (EN 13892-2)
Thermal Resistance	Suitable for use with under floor heating systems (not for embedment).	

APPLICATION INFORMATION

Consumption

25kg will cover approx. 5m² @ 3mm thickness
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.

Layer Thickness

Featheredge to 6mm.

Ambient Air Temperature

+8°C min. / +35°C max.

Relative Air Humidity

< 75% max.

Substrate Temperature

+8°C min. / +35°C max.

Pot Life

Conditions	Time
+23°C / 50% r.h	15 - 20 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 +23ºC will increase the pot life and extend the working time.

Waiting Time / Overcoating

Suitable for overcoating with impermeable or moisture sensitive coatings after :

Product Thickness	Waiting Time
Layer Thickness up to 10mm	~ 24h

Times are approximate and at +23ºC and 50% r.h. and thus will be affected by changing substrate and ambient conditions, particularly the temperature and relative humidity.
When overcoating Sika® Levelling Compound 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)

Applied Product Ready for Use

At +20°C and 50% r.h.

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

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

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Priming
The one-part acrylic primer Sika® -Level-01 Primer is recommended for a pore-free surface with very good surface adhesion. Please refer to the relevant PDS for the recommended application details etc. SikaBond® PVA (1 part PVA to 4 parts clean water) may also be used.

Levelling
Apply to the required thickness up to 6mm.

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. The surface must possess an effective damp proof membrane.

The surface should be free from residual adhesives, damp proof membranes, oil, grease, wax, loose flaky paint, dust, laitance etc. that could reduce adhesion.
Switch off underfloor heating 24 hours before and after application.
Ensure floor temperature is >5°C.
If in doubt apply a test area first.

Substrate Preparation

Weak concrete must be removed and surface defects such as blowholes and voids must be fully exposed. Repairs to the substrate, filling of blowholes/voids must be carried out using appropriate products such as Sika® Concrete Repair Mortar.
Normal Concrete / Screed: If the substrate is strong and has a sufficiently rough texture, Sika® Levelling Compound can be applied directly onto the substrate. Avoid bubbles by dampening the substrate until a SSD condition is achieved.
If the SSD option is chosen, the mechanically prepared concrete must then be thoroughly dampened during the 24 hours prior to the screed application by keeping at least 4 – 5 mm of water on the surface and letting it soak into the substrate. Remove the excess water prior to laying the screed. Any pores which may appear on the screed would mean that the substrate was not sufficiently saturated.
Porous / Concrete Screed: All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush and/or vacuum. Prime as indicated above.
For highly porous substrates it may be necessary to apply more than one coat of primer to prevent pinholes and cracking / debonding of Sika® Levelling Compound.
Non Porous/Dense Substrates: (quarry/ceramic tiles, terrazzo and smooth concrete etc) Mechanically roughen surfaces by grinding or scarifying to provide a mechanical key - specialist advice and machinery may be required.
Alternatively, apply a bonding coat of undiluted Sika-Bond® PVA and allow to become tacky before applying levelling compound

MIXING

Unfilled (up to 6mm thick):
Mix Sika® Levelling Compound with clean water only. Slowly add 5 parts powder to 1 part water (25kg powder will require 5 litres / 5kg of water). Mix in a suitable clean container using a mechanical mixer with a spiral mixing paddle at slow speed until fully mixed and a smooth consistency achieved.
Occasionally during hot weather the product may require remixing during the 15 - 20 minute pot life to reactivate the self levelling characteristics. Do NOT add extra water. Discard any unused material after 20 minutes from initial mixing.

Mixing Time

Mix thoroughly for a minimum of 3 minutes.

Mixing Tools

Use an electric stirrer (< 500 rpm).

APPLICATION

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.

ASTM C 230-90 / EN 1015-3
Top internal diam: 70 mm
Bottom internal diam.: 100 mm
Height: 60 mm
Flow = 355 mm ± 10 mm
(5.25 l per 25 kg)

After placing onto the surface, apply by trowel or pin screed rake to the required thickness.
The use of a spiked roller is not essential but it is recommended.
Roll thoroughly with a spiked roller in two directions to remove any entrapped air.
Manual:
Pour the mixed material onto the primed surface and trowel or pin screed rake to the required thickness.
Roll thoroughly with a spiked roller in two directions to remove any entrapped air.

CLEANING OF TOOLS

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

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 / cement based screeds or Anhydrite screeds
Not suitable as an underfloor heating embedment layer
No loading for at least 3 hours.
Freshly applied Sika® Levelling Compound 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.
Not suitable for application over wood / timber or bitumen substrates.
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 will 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. Small superficial hairline cracking or crazing is a normal occurrence, and 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.

VALUE BASE

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

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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