BUILDING TRUST

PRODUCT DATA SHEET

SikaLevel®-300 (GR)

Medium build polymer modified cementitious floor levelling compound for 1 – 20 mm

DESCRIPTION

SikaLevel®-300 (GR)is a medium duty, very low emission, polymer modified, cementitious floor levelling compound. It provides a reduced shrinkage and smooth finish compound on subfloors before the application of floor coverings.

USES

Formulated for smoothing and levelling interior residential and non-industrial subfloors before applying:
- Wood flooring
- Ceramic tiles
- Seamless resin floors
- Textile floor coverings
- Resilient floor coverings (linoleum, vinyl)

FEATURES

- Self-levelling
- Smooth finish
- High levelling capacity of surface irregularities
- High level of hardness and strength
- Suitable for application on subfloor heating systems
- Layer thickness: 1 – 10 mm. Up to 20 mm with aggregate
- Low shrinkage
- Pumpable
- Low surface porosity
- Good grindability
- Polymer modified
- Drying by hydration process
- Very low tension / stress on substrate

SUSTAINABILITY

- VOC emission classification GEV-Emicode EC1PLUS
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by ECO PLATFORM

PRODUCT INFORMATION

Composition	Cement based, polymer modified
Packaging	25 kg bag
Appearance and colour	Powder / Grey
Shelf life	6 months from date of production
Storage conditions	Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +10 °C and +30 °C. Always refer to packaging.
Product declaration	CE Marking and Declaration of Performance as Cementitious floor screed material, CT-C30-F7, according to EN 13813:2002, based on type testing and factory production control.

TECHNICAL INFORMATION

Compressive strength (EN 13892-2)

Time	Temperature	Value
28 days	+23 °C	≥30 N/mm²

Tensile strength (EN 13892-2)

Time	Temperature	Value
28 days	+23 °C	≥7 N/mm²

Reaction to fire $A1/A1_{fl}$

APPLICATION INFORMATION

Mixing ratio

SikaLevel®-300 (GR)	~6,3 – 6,5 lt of water per 25 kg bag
SikaLevel®-300 (GR) with aggregates	16 kg or 10 lt of quartz sand (0,1 – 3,0 mm) per 25 kg bag (~65 % by weight) ≤6,5 lt water per 25 kg bag

Consumption

1,5 kg/m² of powder per 1 mm thickness.
This figure is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Yield

25 kg of powder yields approximately 16.7 lt of mortar

Layer thickness

Product	Layer Thickness
SikaLevel®-300 (GR)	1 – 10 mm
SikaLevel®-300 (GR) with aggregates	10 – 20 mm

Floor coverings	Minimum layer thickness
SikaLevel®-300 (GR)	2 mm
SikaLevel®-300 (GR) with aggregates	4 mm

Ambient air temperature

Min. +10 °C / Max. +30 °C

Relative air humidity

<75 %

Substrate temperature

Min. +10 °C / Max. +30 °C

Substrate pre-treatment

Important: (1) If the layer thickness of SikaLevel®-300 (GR) exceeds 10 mm prime the calcium sulphate substrate twice with Sikafloor®-155 WN and fully broadcast with quartz sand (0,2–0,8 mm). If Sikafloor®-155 WN is not fully broadcast, use Sikafloor®-02 Primer before applying SikaLevel®-300 (GR).
Note: (1:3 or 1:1) denotes primer dilution with water. Primer : Water

Substrate	Primer
Normal absorbent substrates: concrete, cement screeds, rapid cement screeds	Sikafloor®-01 Primer (1:3) or Sikafloor®-03 Primer
Calcium sulphate substrates (1)	Sikafloor®-03 Primer or Sikafloor®-01 Primer (1:1)
Wood based substrates: chipboard, OSB, parquet, wooden planks	Sikafloor®-03 Primer or Sikafloor®-01 Primer
Non-absorbent substrates: ceramic tiles, water-resistant adhesive residues, epoxy resin layers and mastic asphalt screeds not fully broadcast	Sikafloor®-02 Primer or Sikafloor®-01 Primer
Magnesia screeds (not xylolite)	Sikafloor®-02 Primer

Pot Life

~30 min. at +20 °C

Waiting time to overcoating

Important: Before applying floor covering, make sure the SikaLevel®-300 (GR) has achieved the required moisture content value required by the covering manufacturer. (Refer to the covering Product Data Sheet).
Note: Times are approximate and measured at +20 °C (ambient) / +15 °C (substrate) / 65 % r.h. Note: Application times will be affected by changing substrate and ambient
conditions, layer thickness and water content. SikaLevel®-300 (GR)can be covered as follows:

Floor covering	Layer Thickness	Waiting Time
Wood, ceramic tiles, resin, textile, resilient	≤5 mm	~24 hours
Wood, ceramic tiles, resin, textile, resilient	≤10mm	~48 hours
Ceramic tiles (and SikaLevel®-300 (GR) applied on concrete or cementitious screeds)	≤20 mm	~3 hours

Applied product ready for use

Note: Time will be affected by changing substrate and ambient conditions, layer thickness and water content
Foot traffic: ~3 hours

System structure

Primer/Bonding agent:

Sikafloor®-01 Primer	Universal dispersion primer for absorbent substrates
Sikafloor®-02 Primer	Acrylate based primer for non absorbent substrates

Floor levelling compound:

SikaLevel®-300 (GR)	Floor levelling compound, Class CT-C30-F7, acc. to EN 13813

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.

IMPORTANT CONSIDERATIONS

- Old mastic asphalt screeds IC10 and IC15 (EN 13813), often contain cracks or are embrittled. This substrate will not generally have sufficient tensile strength for taking a low-stress cementitious levelling compound. Consider using a stress-free gypsum levelling compound
- Do not apply on substrates with rising moisture. If rising moisture can occur, an effective damp proof membrane must be applied in compliance with the relevant national standard
- Wooden substrates covered with SikaLevel®-300 (GR) used in combination with a final finish of ceramic tiles, must be designed as an unbonded system by using a membrane or insulation layer. For more information consult Sika Technical Services

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 (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project:
Substrate preparation equipment

- Abrasive blasting cleaning equipment
- Grinding equipment
- Planing machine
- Scarifying machine
- Abrading (sanding) equipment
- Industrial vacuuming equipment

For other types of preparation equipment, contact Sika Technical Dpt.

Mixing equipment

- Electric single or double paddle mixer (<600 rpm) with helical disc-shaped mixing paddle.
- Scraper
- Clean mixing containers

For other types of mixing equipment, contact Sika Technical Dpt.

Application equipment

- Mixed material carrier
- Pin-leveller (Pin-rake)
- Surface blade
- Screed rake
- Smoothing trowels
- Spike roller

For types of pumping equipment, contact Sika Technical Dpt.

SUBSTRATE QUALITY / PRE-TREATMENT

Suitable Substrates Concrete

- Concrete
- Cementitious screeds
- Rapid cement screeds
- Calcium sulphate screeds
- OSB boards
- Parquet flooring
- Wooden planks
- Chipboard
- Mastic asphalt screeds (IC 10 and IC15, acc. to EN 13813) thickness 1 – 3 mm
- Magnesia screeds
- Ceramic tiles
- Natural stones

Substrate quality

- Cementitious substrates (concrete / screed) must be sound. Repair or relay broken / loose ceramic tiles or stones and securely fix wood substrates to the subfloor
- Substrates must be clean, dry and free of all contaminants such as dirt, oil, grease, polish, coatings, water-soluble and water-resistant adhesives, varnish, laitance, surface treatments and loose friable material
- Remove weak cementitious or mastic asphalt substrates and levelling layers
- Remove separation and sinter layers

Pre-treatment

- Prepare cementitious, mastic asphalt, ceramic tile and natural stone substrates mechanically by selecting and using abrasive blast cleaning, grinding or planing, scarifying or abrading (sanding) equipment suitable for the type of substrate
- The final texture of the substrate must be open texture and gripping
- Surface defects such as blow holes and voids must be fully exposed using the surface preparation equipment
- Use products from the Sikafloor®, Sikadur® and Sikagard® range of materials to level the surface or fill cracks, blow holes and voids. Contact Sika Technical Dpt. for additional information on products for levelling and repairing defects
- Products must be cured before applying SikaLevel®-300 (GR)
- Repair or relay tiles or stones
- Existing mastic asphalt screeds must be open textured and gripping after preparation or have rough sand broadcast surface. If the surface is smooth (insufficiently broadcast / worn surface). Prime substrate with primer Sikafloor®-02 Primer or Sikafloor®-01 Primer undiluted before applying SikaLevel®-300 (GR)
- Wood substrates must be mechanically abraded using sanding equipment to achieve a rough, textured gripping surface profile
- Securely fix loose planks or boards to subfloor. Fill joints, cracks or holes with wood filler to prevent leakage of the applied SikaLevel®-300 (GR). Wood filler products must be fully hardened before applying SikaLevel®-300 (GR)
- Seal remaining water-soluble adhesive residue by priming floor with Sikafloor®-155WN/-150/-151/-156/or Sika® Primer MB Rapid and fully broadcast with kiln dried quartz sand. If quartz sand is not used, the sealing primer must be coated with Sikafloor®-02 Primer before applying SikaLevel®-300 (GR)
- Use industrial vacuuming equipment to remove all dust, loose and friable material from the application surface before applying the product
- To improve the adhesion and provide a pore free surface for subsequent coverings, use Sikafloor®-01 Primer, Sikafloor®-02 Primer or Sikafloor®-03 Primer

MIXING

Important: Do not add more than 6,5 litres of water to 25 kg of powder.
Important: Do not mix or blend with OPC cements or other binders.
Requirement: Use an electric single or double paddle mixer (<600 rpm) with helical disc-shaped mixing paddle.

Unfilled compound

1. Pour ~6,3 – 6,5 litres of clean water into a clean mixing container
2. Mix the water slowly while gradually adding the complete bag of powder
3. Mix continuously for 2,0 minutes to achieve a smooth, uniform mix. If necessary, add more water (up to the max.) to achieve the required consistency
4. To allow entrained air to escape and mature, let the mixture to stand for ~2 minutes
5. Mix for a further ~1 minute

Aggregate filled compound

1. Pour ~6,3 – 6,5 litres of clean water into a clean mixing container
2. Mix the water slowly while gradually adding the complete bag of powder
3. Gradually add 16 kg of aggregates
4. Mix continuously for at least 2,0 minutes to achieve a uniform mix. If necessary, add more water (up to the max.) to achieve the required consistency
5. To allow entrained air to escape and mature, let the mixture to stand for ~2 minutes
6. Mix for a further ~1 minute

APPLICATION

Important: Strictly follow installation procedures as defined in method statements, application manuals and working instructions, which must always be adjusted to the actual site conditions.
Important: Before application, confirm substrate moisture content, relative air humidity, dew point, substrate, air and product temperatures.
Important: Edge and movement joints must be brought through to the finished surface and must be protected, so the product will not flow into the joint.
Important: The product must be applied to the required thickness and surface flatness as specified by the floor covering manufacturer.
Important: Use an isolating strip / tape to prevent product bonding onto vertical surfaces, i.e. pipes, ducts, conduits, walls, columns etc.
Important: In a 2-layer application, the 2nd layer must not exceed the 1st layer thickness.
Important: To reduce the risk of cracking, protect freshly applied product from high ambient temperatures, direct sunlight and drought.
Note: If a pin-leveller (pin-rake) is used instead of a trowel. It avoids having to remove trowel marks with a spike roller or to level more than once.
1. Pour the mixed product onto the substrate
2. Spread the product evenly using a smoothing trowel, surface blade, screed rake or pin-leveller (pin-rake) to the required thickness
3. Allow product to smoothen over the substrate
4. If required, spike roller immediately to remove any trowel marks or surface defects
5. If a 2nd layer of SikaLevel®-300 (GR) is to be applied, prime the hardened 1st layer with Sikafloor®- 03 Primer or with Sikafloor®-01 Primer (diluted with water 1:1)

Recommended surface conditioning for resin flooring
Note: The tensile adhesion strength of the cured SikaLevel®-300 (GR) / primer / scratch coat must be at least ~ 1,0 N/mm²
1. After the required SikaLevel®-300 (GR) waiting time, apply by fleece roller, a double primer coat of Sikafloor®-03 Primer
2. Allow primer to harden ‘tack free’
3. Apply a scratch coat of Sikafloor®-151 + 2 % Extender T
4. Inspect scratch coat and fill any pores with Sikafloor®-151 + 2 % Extender T
5. Apply resin flooring product / system

CLEANING

Removal of fresh remnants from tools and application equipment can be carried out using water immediately after use. Hardened / cured 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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