BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-300 Rapid Level

Rapid-setting, high-strength, polymer-modified, cementitious floor levelling compound

PRODUCT DESCRIPTION

Sikafloor®-300 Rapid Level is a polymer-modified, cementitious floor levelling compound with very low VOC emissions and a layer thickness of 1 to 10 mm. It sets rapidly, has high strength and provides reduced shrinkage. It is used as a smooth-finish compound on subfloors before applying a floor covering.

USES

Sikafloor®-300 Rapid Level is used for:
- Smoothing and levelling interior residential and non-industrial subfloors before applying a covering

Sikafloor®-300 Rapid Level is used as a substrate for the following coverings:
- Wood flooring
- Ceramic tiles
- Seamless resin floors
- Textile floor coverings such as carpet
- Resilient floor coverings such as linoleum and vinyl

Please note:
- The Product may only be used by experienced professionals.
- The Product may only be used for interior applications.

CHARACTERISTICS / ADVANTAGES

- Self-levelling
- Floor coverings can be installed after just a few hours
- High level of hardness and strength
- Suitable for use with underfloor heating systems
- Layer thickness of 1–10 mm without addition of aggregates
- Layer thickness of up to 25 mm with aggregates
- Suitable for castor wheels in accordance with EN 12529
- Pumpable
- Suitable for forklift truck traffic
- Low surface porosity

ENVIRONMENTAL INFORMATION

- Contributes towards satisfying Materials and Resources (MR) Credit: Building Product Disclosure and Optimization — Material Ingredients under LEED® v4
- VOC emission classification GEV Emicode EC1^{plus}
- Environmental Product Declaration (EPD) in accordance with EN 15804. EPD independently verified by Institut für Bauen und Umwelt e.V. (IBU)

APPROVALS / STANDARDS

- CE marking and declaration of performance based on EN 13813:2002 Screed material and floor screeds — Screed material — Properties and requirements — Cementitious screed material

PRODUCT INFORMATION

Product Declaration	EN 13813:2002	Class CT-C50-F10
Chemical Base	Cement-based, polymer-modified	
Packaging	25 kg Refer to the current price list for available packaging variations.	
Shelf Life	6 months from date of production	

Storage Conditions	The Product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to the packaging. Refer to the current Safety Data Sheet for information on safe handling and storage.
Appearance / Colour	Grey powder

TECHNICAL INFORMATION

Compressive Strength	28 days	+23 °C	≥ 50 N/mm²	(EN 13892-2)
Flexural Strength	28 days	+23 °C	≥ 10 N/mm²	(EN 13892-2)
Reaction to Fire	$A1_{fl}$			(EN 13501-1)

APPLICATION INFORMATION

Consumption	1.5 kg/m² per mm of thickness Note: Consumption data is theoretical and does not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply the Product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.	
Layer Thickness	GENERAL	
	Product	1–10 mm
	Product with aggregates	10–25 mm
	SPECIAL CONDITIONS	
	Castor wheel loading	Minimum 1 mm according to EN 12529
	Parquet or wooden plank covering	Minimum. 2 mm
	Resin floor covering	Minimum 4 mm
Product Temperature	Maximum	+25 °C
	Minimum	+5 °C
Ambient Air Temperature	Maximum	+30 °C
	Minimum	+5 °C
Relative Air Humidity	< 75 %	
Mixing Ratio	Product without aggregates	6.0 L of water for 25 kg of Product
	Product with aggregates	16 kg or 10 L of quartz sand (0.1–3.0 mm) for 25 kg of Product (approximately 65 % by weight) ≤ 6.0 L water for 25 kg of Product
Substrate Temperature	Maximum	+25 °C
	Minimum	+5 °C
Pot Life	At +20 °C	25 minutes

Waiting Time / Overcoating	Before applying a floor covering, make sure the Product has achieved the moisture content value required by the covering manufacturer. Refer to the manufacturer's Product Data Sheet for the respective covering. The Product can be covered as follows: **Floor covering** / **Layer thickness** / **Typical waiting time** Ceramic tiles, textile, resilient coverings / ≤ 10 mm / 1.5–2 hours Coverings sensitive to moisture: wood planks, parquet / ≤ 10 mm / 12 hours Resin / ≤ 5 mm / 3 hours Times measured at an ambient temperature of +20 °C, a substrate temperature of +15 °C with a 65 % relative humidity. Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity. Times are also dependant on layer thickness.
Applied Product Ready for Use	Foot traffic: 90 minutes Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

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.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment for the project.
SUBSTRATE PREPARATION EQUIPMENT
- Abrasive blast cleaning equipment
- Grinding equipment
- Planing machine
- Scarifying machine
- Abrading (sanding) equipment
- Industrial vacuuming equipment

For other types of preparation equipment, contact Sika Technical Services.
MIXING EQUIPMENT
- Electric single-paddle 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 Services.

APPLICATION EQUIPMENT
- Mixed material carrier
- Pin leveller (pin rake)
- Surface blade
- Screed rake
- Notched trowel
- Smoothing trowels
- Spiked roller

For types of pumping equipment, contact Sika Technical Services.

SUBSTRATE PREPARATION

IMPORTANT
Impaired Product properties due to substrates with rising moisture
1. Do not apply the Product on substrates with rising moisture.
2. If rising moisture can occur, apply an effective damp-proof membrane that complies with the applicable national standard.

IMPORTANT
Surface defects due to voids in the substrate
Voids and blow holes in the substrate will weaken the surface and damage the covering Product if not repaired during the preparation process.
1. Fully expose blow holes and voids during surface preparation to identify the required repairs.

Application of the Product on wooden substrates with a final finish of ceramic tiles
1. The system must be designed as an unbonded system by using a membrane or insulation layer.
2. Consult Sika Technical Services.

CEMENTITIOUS, CALCIUM SULPHATE, MASTIC ASPHALT, CERAMIC TILE AND NATURAL STONE SUBSTRATES
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Remove separation and sinter layers.
2. IMPORTANT The final texture of the substrate must be open-textured and gripping. Remove weak cementitious and levelling layers, and fully expose defects such as blow holes and voids. Note Suitable methods for surface preparation are abrasive blast cleaning, grinding, planing or scarifying equipment, depending on the type of substrate.
3. Repair or relay broken or loose tiles and stones.
4. Repair and fill blow holes and voids using appropriate products from the Sikafloor®, Sikadur® and Sikagard® range of materials.
5. Any repair materials must be cured before starting to apply the Product.
6. Before applying the Product, remove all dust, loose and friable material from the application surface with an industrial vacuuming equipment.
7. Prime the substrate. Select the primer as indicated in further priming instructions.

WOOD-BASED SUBSTRATES SUCH AS CHIPBOARD, OSB, PARQUET, WOODEN PLANKS
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Confirm that wood substrates are firmly fixed and do not move.
2. IMPORTANT The final texture of the substrate must be rough-textured and gripping. Abrade the substrate using sanding equipment.
3. Fill joints, cracks or holes with wood filler to prevent leakage of the applied Product.
4. Before applying the Product, remove all dust, loose and friable material from the application surface with an industrial vacuuming equipment.
5. Any repair materials must be cured before starting to apply the Product.
6. Prime the substrate with Sikafloor®-03 Primer undiluted or Sikafloor®-01 Primer undiluted.

PRIMING NORMALLY-ABSORBENT SUBSTRATES SUCH AS CONCRETE, CEMENT SCREEDS, RAPID CEMENT SCREEDS
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Prime the substrate with Sikafloor®-01 Primer diluted 1 : 3 with water or Sikafloor®-03 Primer undiluted.

PRIMING CALCIUM SULPHATE SUBSTRATES WITH PLANNED PRODUCT LAYER THICKNESS OF LESS THAN 10 MM
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Prime the substrate with Sikafloor®-03 Primer undiluted or Sikafloor®-01 Primer diluted 1 : 1 with water.

PRIMING CALCIUM SULPHATE SUBSTRATES WITH PLANNED PRODUCT LAYER THICKNESS OF MORE THAN 10 MM
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Prime the substrate twice with Sikafloor®-155 WN, Sikafloor®-151, or Sikafloor®-161.
2. Fully broadcast the primer with quartz sand (0.2–0.8 mm).
3. If the primer is not fully broadcast, apply Sikafloor®-02 Primer before applying the Product.

PRIMING MASTIC ASPHALT SCREEDS
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. IMPORTANT This is applicable to interiors only. Existing mastic asphalt screeds must be open textured and gripping after preparation or have a rough sand broadcast surface.If the surface is smooth and not gripping or broadcast, apply Sikafloor®-02 Primer or Sikafloor®-01 Primer undiluted.

PRIMING NON-ABSORBENT SUBSTRATES SUCH AS CERAMIC TILES, WATER-RESISTANT ADHESIVE RESIDUES AND EPOXY RESIN LAYERS
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Prime the substrate with Sikafloor®-02 Primer undiluted or Sikafloor®-01 Primer undiluted.

PRIMING MAGNESIA SCREEDS (NOT XYLOLITE)
Preconditions
The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.
1. Prime the substrate with Sikafloor®-02 Primer undiluted.

SUBSTRATES WITH WATER-SOLUBLE ADHESIVE RESIDUE

Preconditions

The substrate must be sound, clean, free from all contaminants such as dirt, oil, grease, loose friable material, cement laitance, coatings and other surface treatments.

1. Prime the substrate with Sikafloor®-155 WN, Sikafloor®-150, Sikafloor®-151, Sikafloor®-161, or Sika® Primer MB Rapid.
2. Fully broadcast the primer with kiln-dried quartz sand.
3. If the primer is not fully broadcast, apply Sikafloor®-02 Primer before applying the Product.

COMPATIBLE SUBSTRATES:

- Concrete
- Cementitious screeds
- Rapid cement screeds
- Calcium sulphate screeds
- OSB boards
- Parquet flooring
- Wooden planks
- Chipboard
- Magnesia screeds
- Ceramic tiles
- Natural stones
- Mastic asphalt screeds (IC 10 and IC 15) (EN 13813) 1–3 mm thick

Old mastic asphalt screeds IC 10 and IC 15 (EN 18813) often contain cracks or are brittle.

Note: This type of substrate does not have sufficient tensile strength for a low-tension cementitious joint compound.

1. Use a tension-free gypsum joint compound.

MIXING

IMPORTANT

Incompatibility with Portland cement

The Product is a special cement binder-based mortar which can expand in contact with standard Portland cements.

1. Do not mix or blend the Product with Portland cements or other binders.

IMPORTANT

Reduced Product performance due to overaddition of water

1. Do not add more than the prescribed water amount to the Product.

UNFILLED COMPOUND

1. Pour the minimum, or slightly less than the minimum, amount of water into a suitable clean mixing container.
2. IMPORTANT Use an electric single-paddle or double-paddle mixer (< 600 rpm) with a helical, disc-shaped mixing paddle. Mix the water slowly while gradually adding the complete bag of the Product.
3. Mix continuously for 2 minutes to achieve a smooth, uniform mix. If necessary, add more water to achieve the required consistency.
4. Do not mix for 2 minutes to allow entrained air to escape and for the mixture to mature.
5. Mix for a further 1 minute.

AGGREGATE-FILLED COMPOUND

1. Pour the minimum, or slightly less than the minimum, amount of water into a suitable clean mixing container.
2. IMPORTANT Use an electric single-paddle or double-paddle mixer (< 600 rpm) with a helical, disc-shaped mixing paddle. Mix the water slowly while gradually adding the complete bag of the Product.
3. Gradually add the amount of aggregate specified in the mixing ratio.
4. Mix continuously for 2 minutes to achieve a smooth, uniform mix. If necessary, add more water to achieve the required consistency.
5. Do not mix for 2 minutes to allow entrained air to escape and for the mixture to mature.
6. Mix for a further 1 minute.

APPLICATION

IMPORTANT

Strictly follow installation procedures

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

Subfloor cracking due to incorrect assessment of site requirements

1. Bring edge and movement joints through to the finished surface and protect them so the Product will not flow into the joint.
2. Use an isolating strip to prevent the Product bonding onto vertical surfaces, such as pipes, ducts, conduits, walls and columns.
3. Protect the freshly-applied Product from high ambient temperatures, direct sunlight and draughts.

Subfloor thickness and flatness

Note: The Product must be applied to the required thickness and surface flatness as specified by the floor covering manufacturer.

APPLYING A SINGLE LAYER

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 the Product to smooth over the substrate.
4. Immediately use a spiked roller to remove any trowel marks or surface defects, as required. Note This step is more likely if a trowel was used for spreading, rather than a pin leveller.

APPLYING TWO LAYERS

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 the Product to smooth over the substrate.
4. Immediately use a spiked roller to remove any trowel marks or surface defects, as required. Note This step is more likely if a trowel was used for spreading, rather than a pin leveller.
5. Allow the first layer to harden.
6. Prime the first layer with Sikafloor®-03 Primer or Sikafloor®-01 Primer diluted 1 : 1 with water.
7. IMPORTANT In a two-layer application, the thickness of the second layer must not exceed the thickness of the first layer. Apply a second layer of the Product.

RECOMMENDED SURFACE CONDITIONING FOR RESIN FLOORING

Tensile adhesion strength after conditioning

Note: The tensile adhesion strength of the cured Product with primer and scratch coat must be at least 1.0 N/mm².

1. Wait until the Product is ready for overcoating.
2. Apply a double coat of Sikafloor®-03 Primer using a fleece roller.
3. Allow the primer to harden until the surface is tack-free.
4. Apply a scratch coat of Sikafloor®-151 or Sikafloor®-161 with 2 % Sika® Extender T.
5. Inspect the scratch coat and fill any pores with Sikafloor®-151 or Sikafloor®-161 with 2 % Sika® Extender T.
6. Apply the resin flooring product or system.

CLEANING OF TOOLS

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

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 the exact product data and uses.

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.

SIKA IRELAND LIMITED
Ballymun Industrial Estate
Ballymun
Dublin 11, Ireland
Tel: +353 1 862 0709
Web: www.sika.ie
Twitter: @SikaIreland