BUILDING TRUST

PRODUCT DATA SHEET

Sikafloor®-4050 Level

Thick layer, rapid-setting, hybrid floor levelling compound

PRODUCT DESCRIPTION

Sikafloor®-4050 Level is a thick layer, rapid-setting, hybrid gypsum-cement floor levelling compound. It combines the advantages of calcium sulphate (gypsum) and cement. This provides reduced shrinkage and a fast-drying compound on subfloors before the application of floor coverings. It has a layer thickness of 3–50 mm.

USES

Sikafloor®-4050 Level is used for:
- Smoothing and levelling interior substrates before applying a covering

Sikafloor®-4050 Level is used as a substrate for the following coverings:
- Textile floor coverings such as carpet
- Resilient floor coverings such as linoleum and vinyl
- Tile and natural stone flooring
- Resin coatings

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

CHARACTERISTICS / ADVANTAGES

- Floor coverings can be installed after just a few hours
- Ready for foot traffic after approximately 2 hours
- Suitable for use with underfloor heating systems
- Self-levelling
- Pumpable
- Causes very little tension or stress on the substrate
- Suitable for castor wheels in accordance with EN 12529

PRODUCT INFORMATION

Chemical Base	Hybrid technology, containing calcium sulphate and cement	
Packaging	25 kg Refer to the current price list for available packaging variations.	
Colour	White (Cured colour: Light grey)	
Shelf Life	12 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.	
Product Declaration	EN 13813:2002	Class CA-C50-F10
Colour	Powder	

TECHNICAL INFORMATION

Compressive Strength	Conditioned 28 d at +20 °C	≥ 50 N/mm²	(EN 196-1)
Flexural Strength	Conditioned 28 d at +20 °C	≥ 10 N/mm²	(EN 196-1)

APPLICATION INFORMATION

Mixing Ratio

Pourable consistency	4.25 L per 25 kg bag

Consumption

1.8 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

Maximum	50.0 mm
Minimum	3.0 mm

Product Temperature

Maximum	+25 °C
Minimum	+5 °C

Ambient Air Temperature

Maximum	+30 °C
Minimum	+5 °C

Substrate Temperature

Maximum	+25 °C
Minimum	+5 °C

Substrates

- Concrete
- Cement and rapid cement screeds
- Calcium sulphate-bonded screeds (gypsum)
- Ceramic tiles and natural stone
- OSB boards (class 3–4)
- Parquet flooring
- Wooden planks
- Chipboard (P4–P7)
- Broadcasted mastic asphalt screeds (IC 10 and IC 15) (EN 13813)
- Magnesia screeds
- Ceramic tiles
- Natural stones

Pot Life

At +20 °C	30 min

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
Textile, vinyl and linoleum	≤ 5 mm	6 hours
Textile, vinyl and linoleum	≤ 25 mm	12 hours
All other coverings	≤ 50 mm	24 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: 2 hours Note: Times are approximate and will be affected by changing ambient conditions, particularly temperature and relative humidity.

SYSTEM INFORMATION

System Structure	▪ When using Sikafloor®-4050 Level under ceramic tiles and stone coverings, use quick-drying primers and rapid-setting adhesives. ▪ When using Sikafloor®-4050 Level on substrates with high movement capacity, the flexibility of the tile adhesive must be higher than the movement of the substrate.

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.

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.

APPLICATION INSTRUCTIONS

EQUIPMENT

Select the most appropriate equipment required for the project.
SUBSTRATE PREPARATION EQUIPMENT
- Abrasive blasting cleaning equipment
- Planing machine
- Scarifying machine
- Sanding equipment
- High-pressure water blasting equipment
- Industrial vacuuming equipment

For other types of preparation equipment, contact Sika Technical Services.
MIXING EQUIPMENT
- Electric single or double paddle mixer (< 600 rpm) with helical disc-shaped or spiral helix paddle
- Scraper
- Clean mixing containers

For other types of mixing equipment, contact Sika Technical Services.
APPLICATION EQUIPMENT
- Mixed material carrier
- Pin leveller (pin rake)
- Smoothing trowels

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.

- Cementitious substrates, such as concrete and screed, and mastic asphalt must be sound.
- 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.

CEMENTITIOUS, CALCIUM SULPHATE, MASTIC ASPHALT, CERAMIC TILE AND NATURAL STONE SUBSTRATES
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. Remove all dust, loose and friable material from the application surface with industrial vacuuming equipment.
7. Apply Sikafloor®-02 Primer or undiluted Sikafloor®-01 Primer to the substrate prior to the application of the Product. Refer to the individual Product Data Sheets for further information.

SUBSTRATES WITH WATER-SOLUBLE ADHESIVE RESIDUE

1. Prime the substrate with Sika® Primer MB Rapid, Sikafloor®-150 Plus, or Sikafloor®-151.
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.

WOODEN SUBSTRATES

If using the Product on wooden substrates with high movement capacity, the flexibility of the tile adhesive must be higher than the movement of the substrate.

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

Overaddition of water

Adding too much water adversely affects the performance of Sikafloor®-4050 Level.

1. Do not add more than the prescribed amount of water.
2. Pour the specified quantity of clean water into a suitable mixing container.
3. 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.
4. Mix continuously for 2 minutes to achieve a smooth, uniform mix.
5. Stop mixing and wait for 3 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.

IMPORTANT

Corroded metal and galvanised pipes due to contact with Product

1. Wrap metal and galvanised water pipes with an isolating tape.

IMPORTANT

Impaired Product properties due to contact with moisture

Using the Product in wet areas unprotected may affect its mechanical properties.

1. Protect the Product from coming into contact with moisture.

Incorrect layer thickness of mastic asphalt screeds

Note: If using the Product on mastic asphalt screeds IC 10 and IC 15 according to EN 13813, the Product must have a thickness of at least 3 mm and not exceeding 10 mm.

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 or pin leveller (pin rake) to the required thickness.
3. Allow the Product to smooth over the substrate.

APPLYING TWO LAYERS

1. Pour the mixed Product onto the substrate.
2. Spread the product evenly using a smoothing trowel or pin leveller (pin rake) to the required thickness.
3. Allow the Product to smooth over the substrate.
4. Allow the first layer to harden.
5. Prime the first layer with Sikafloor®-01 Primer diluted 1 : 1 with water.
6. Apply a second layer of the Product. In a two-layer application, do not exceed the maximum layer thickness. The thickness of the second layer must not exceed the thickness of the first layer.

RECOMMENDED SURFACE CONDITIONING FOR RESIN FLOORING

1. Wait until the Product is ready for overcoating.
2. Apply a coat of Sikafloor®-150 Plus or Sikafloor®-151 using a roller.
3. Allow the primer to harden until the surface is tack-free.
4. Apply a scratch coat of Sikafloor®-151 with 2 % Sika® Extender T.
5. 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

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.

SIKA LIMITED
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
Tel: 01707 394444
Web: www.sika.co.uk
Twitter: @SikaLimited