

# Sika – a Global Player in Speciality Chemicals for Construction and Industry



Sika is a globally active company in the speciality and construction chemicals business. It has subsidiary manufacturing, sales and technical support facilities in over 70 countries around the world. Sika is the global market and technology leader in waterproofing, sealing, bonding, dampening, strengthening and the protection of buildings and civil engineering structures. Sika has approx. 12'000 employees worldwide and is therefore ideally positioned to support the success of its customers.

## Also Available from Sika



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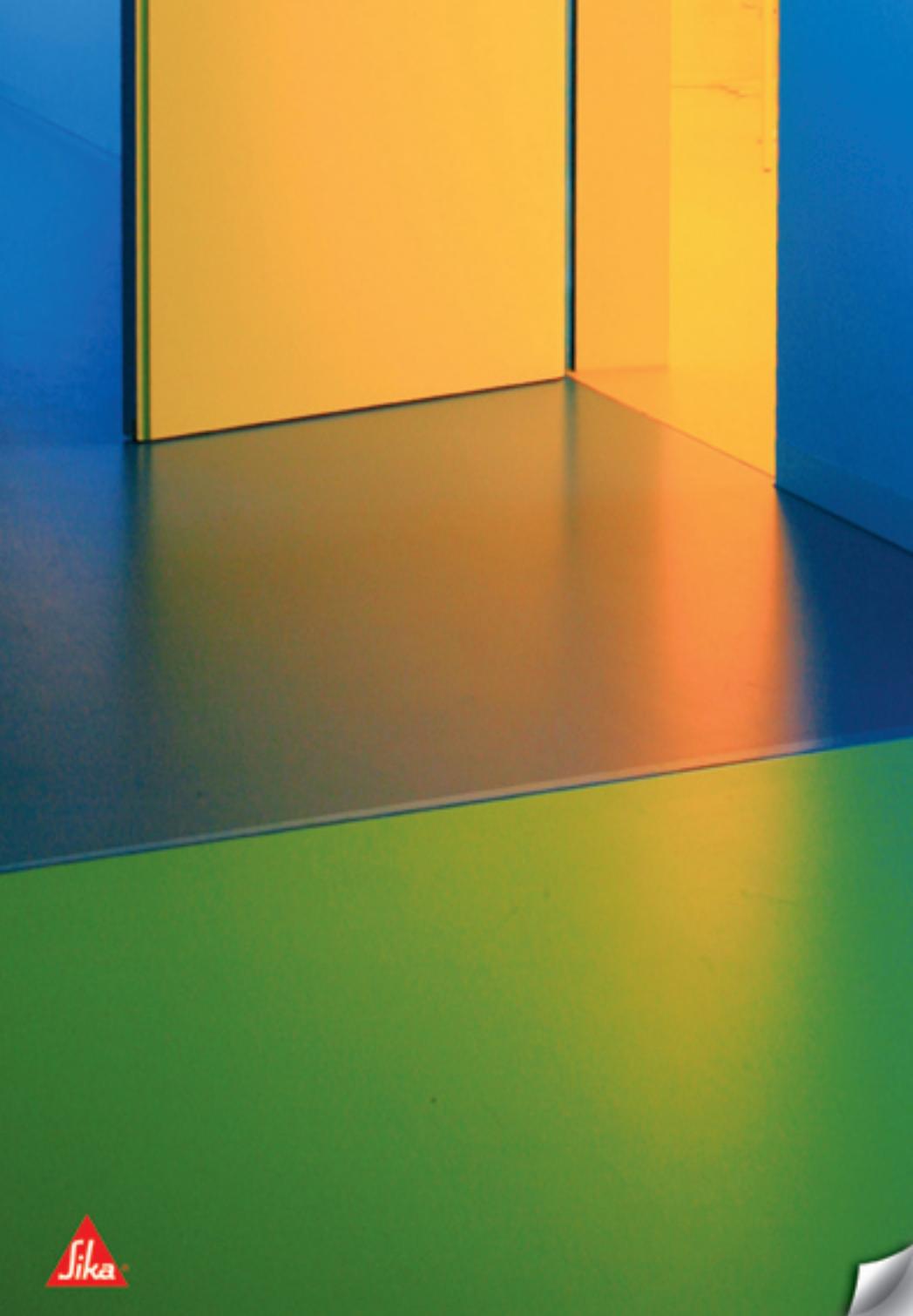
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[www.sika.com.eg](http://www.sika.com.eg)

Our most current General Sales Conditions shall apply.  
Please consult the Product Data Sheet prior to any use and processing.



# Project Reference

Date	Project	Location	Material / Quantity
<b>Concrete</b>			
2020	Ministry of Internal Affairs	Cairo	BrickFloor 204 (1000m²)
2020	Saint Village (Ring 201)	Cairo	BrickFloor 204 (1000m²)
2020	CCG	Cairo	BrickFloor 201 (1000m²)
2020	Vietnam	Cairo	BrickFloor 201 (1000m²)
2020	Indonesia	Cairo	BrickFloor 204 (1000m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00 (1000m²)
2020	Antique Factory	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	El-Gouna	Cairo	BrickFloor 2-02 00 (1000m²)
2020	El-Masyaf Club	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	Beacon Factory		BrickFloor 2-02 00 (1000m²)
2020	Masjid	Cairo	BrickFloor 2-02 00 (1000m²)
2020	MAFIA	Al-Azharaya	BrickFloor 2-02 00 (1000m²)
2020	Governorate	El-Sai El-Kheir	BrickFloor 2-02 00 (1000m²)
2020	MAFIA	Al-Azharaya	BrickFloor 2-02 00 (1000m²)
2020	Armed Forces	Cairo	BrickFloor 2-02 00 (1000m²)
2020	MAFIA	Al-Azharaya	BrickFloor 2-02 00 (1000m²)
2020	MAFIA	Al-Azharaya	BrickFloor 2-02 00 (1000m²)
2020	El-Azhar	Giza City	BrickFloor 204 (1000m²)
2020	Export Park		BrickFloor 2-02 00 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 204 (1000m²)
2020	Governorate	Khal El-Zayat	BrickFloor 2-02 00 (1000m²)
2020	Magia Galaxy	Cairo	BrickFloor 204 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Revere	Cairo	BrickFloor 204 (1000m²)
2020	Magia Galaxy	Cairo	BrickFloor 204 (1000m²)
2020	Masjid	El-Sai Al-Kheir	BrickFloor 2-02 00 (1000m²)
2020	Beacon Factory	Cairo	BrickFloor 2-02 00 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Ministry of Finance	El-7th of October City	BrickFloor 204 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 201 (1000m²)
2020	Magia Galaxy	Cairo	BrickFloor 204 (1000m²)
2020	Dating	El-7th of October	BrickFloor 2-02 00 (1000m²)
2020	Soft Factory	El-7th Of November City	BrickFloor 2-02 00 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 204 (1000m²)
2020	Revere Contractors	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Military	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Antara	El-7th of October	BrickFloor 2-02 00 (1000m²)
2020	Magia Galaxy	Cairo	BrickFloor 204 (1000m²)
2020	Soft Factory	El-7th Of November City	BrickFloor 2-02 00 (1000m²)

# Project Reference

Date	Project	Location	Material / Quantity
<b>Brickwork</b>			
2020	Wihda (AbuQir)	Alexandria	BrickFloor 201 (1000m²)
2020	Orchid Pharms	El-7th Of November City	BrickFloor 204 (1000m²)
2020	Masjid	El-7th of October	BrickFloor 2-02 00 (1000m²)
<b>Concrete Mortar</b>			
2020	Antalya Factory	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	Armed Forces	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Caterpillar Martock	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	Usta	Port Said	BrickFloor 204 PurCom (100m²)
2020	AI.D.E	Cairo	BrickFloor 204 PurCom (100m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	MAFIA	Al-Azharaya	BrickFloor 2-02 00 (1000m²)
2020	El-Masyaf Club	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	Spacial	Port Said	BrickFloor 2-02 00 (1000m²)
2020	Masjid	El-7th of October	BrickFloor 204 PurCom (100m²)
<b>Self Levelling</b>			
2020	Indomaxx	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Armed Forces	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Wihda	Al-Azharaya	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 2-02 00 (1000m²)
2020	Masjid	El-Sai Al-Kheir	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	MAFIA	El-Dakher	BrickFloor 2-02 00 (1000m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00 (1000m²)
2020	Wihda	El-7th Of November City	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 201 (1000m²)
2020	Masjid	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda	El-7th Of November City	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 201 (1000m²)
2020	Masjid	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda	El-7th Of November City	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda (AbuQir)	Alexandria	BrickFloor 201 (1000m²)
2020	Masjid	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	AI.D.E	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	Cairo	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	El-Azhar	El-Dakher	BrickFloor 2-02 00, Filter 200 (1000m²)
2020	Wihda	El-7th Of November City	BrickFloor 2-02 00, Filter 200 (1000m²)
<b>Anti-Slip</b>			
2020	Volvo Wagon	El-Sai Al-Kheir	BrickFloor 2-02 00 (1000m²)
2020	Indomaxx	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Armed Forces	Cairo	BrickFloor 2-02 00 (1000m²)
2020	Masjid	El-7th of October	BrickFloor 2-02 00 (1000m²)
2020	Armed Forces	Cairo	BrickFloor 2-02 00 (1000m²)

# Sika's Industrial Flooring Capability



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Car Park Solutions

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A user-friendly online Factory House Selection Guide is available at [www.sika.com](http://www.sika.com)

Area	Commercial and Public Areas	Departments / R&D-Center	Industrial Areas
1	1	1	1
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## Sikafloor® Solutions for Storage, Logistic and Sales Areas



### Introduction

Large quantities of goods have to be produced quickly and on time for an efficient economy to function. In the manufacturing industries where these goods are produced, handled and stored, the production lines, warehouses, loading bays etc., all need to have the flooring designed and adapted to suit the specific conditions of each process operations.

It is always essential to ensure that the slippages generated are not higher than the strength of the flooring system. Therefore, fully understanding the areas operations and the floors performance requirements are most important. This includes the mechanical and chemical resistance, plus ease of cleaning, and dust prevention etc.

### New Buildings

Concrete slabs with mix designs using **Sika-mix™** or **Sika® ViscoCrete® 900** Technology form a sound foundation and allow accurate levels with falls to be achieved. **Sikafloor® "dry-shake"** solutions are applied as dry powders, directly onto the surface of the freshly cast-concrete and then powerfully finished. The special ingredients release excess moisture from the concrete, which results in the material hardening at a very low water:cement ratio and immediately with the base concrete. This creates an integrated and extremely hard-wearing floor.

Concrete surface hardeners, plus curing and surface sealing compounds complete the **Sikafloor®** range.

Additionally, **Sika® EpoCem™** technology can also be used as temporary new or "green" and damp concrete as a temporary moisture barrier in order to reduce waiting times for the subsequent vapour tight floor trapping system.



## The Sikafloor® Application Procedure

### Substrate Inspection and Preparation

The substrate is the basis of a floor, whether it is new or old. Thorough inspection and assessment are essential to determine the correct substrate preparation for a successful flooring system.

A durable bond must be achieved between the new floor system and the substrate.

This requires a dry, sound and clean surface to be prepared, without dust or other contaminants, prior to application of the flooring system.

#### Measuring the Compressive Strength

The compressive strength of the substrate should not be less than 25 N/mm<sup>2</sup> (3.5 MPa). To meet defined loads, a higher strength may be required. It is advisable to take a number of measurements across the floor and in all parts of the proposed installation to confirm suitability of the compressive strength.



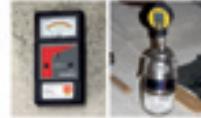
#### Determining the Cohesive Strength

Concrete substrates generally have cement balance with low strengths in the top few mm. This weak layer must always be removed. Stresses from concrete shrinkage, thermal shock or excessive loading may also lead to reduced cohesive strength. The minimum should be > 1.0 N/mm<sup>2</sup> (0.15 MPa). Any inadequate areas must be removed and replaced.



#### Substrate Moisture Content

It is extremely important to measure the substrate moisture content because cement bound substrates should normally only be coated at a moisture level of < 4% plus. A very simple method for checking moisture presence is the test according ASTM D4202 (Polyethylene sheet) at least 1 m x 1 m of polyethylene sheet, taped to the concrete surface. This should be left in position for at least 24 hours, prior to removal and testing. Any condensed vapour transmission is readily detected. Substrate moisture greater than 4% by volume or rising moisture (condensed vapours) indicates the need for additional drying time or the use of **Sikafloor® EpoCem™** Technology as a temporary moisture barrier.



#### Ambient Conditions

If atmospheric climate factors are present, serious flooring defects such as poor adhesion, water marks, void formation, irregular surfaces and inadequate curing may occur. The following data must therefore be checked several times a day, before, during and after application to ensure that they are within the system limitations:



#### Preparation and Cleaning

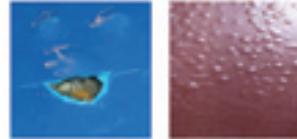
Areas of weak substrate or surface balance will compromise the adhesion characteristics of any installed system. If not fully removed, surfaces must therefore always be mechanically prepared down to a sound substrate. Any dirt, dust, oils and grease or other contaminants will also reduce or prevent adhesion of any coating, as these must also be removed by thorough cleaning and vacuuming of all residues.



## Time is Money – Cut the Waiting Time in Both New Construction and Repair Works

The scheduled "flooding" ("start" and "hold") on site, does not always match the overall construction time required (e.g. necessary waiting times/delays due to substrate condition or environmental limitations etc.).

The floor finishes on most construction sites are one of the last applications and as they are usually done under time pressure. If you have to wait until the ideal conditions pull-off strength 1.5 N/mm<sup>2</sup> and humidity (>4 %RH) in the concrete slab are achieved, then most flooring materials require a waiting time of at least 24 days, according to their data sheets and the respective standards. You can cut this waiting time significantly by using the unique intermediate layers **Sikafloor® -41** or **-42 EpoCem™**. These can be applied directly onto the new concrete after just 7 to 10 days and cure directly on concrete substrates recently prepared by high pressure water-jetting, in return, it works for example:



**Sika® "EpoCem™" Technology prevents or overcomes** coating failures related to coating fresh and damp concrete.

An additional opportunity for the use of **Sikafloor® EpoCem™** is when you are not sure if the concrete slab has intact waterproofing membranes underneath it or not. Missing moisture can cause serious problems on ground bearing slabs for many types of resin based floor coatings, frequently leading to blistering or delamination.

The advantages of **Sikafloor® EpoCem™** are based on the unique systems-components. It consists of an epoxy dispersion in a conventional self-leveling mortar screed. Application thickness varies from 2 to 8 mm, dependent on the system. With this material you can achieve a fully homogeneous, sound and smooth substrate for the floor tiling. The combined epoxy-cement matrix forms a temporary barrier against rising moisture and it also provides a high strength substrate.

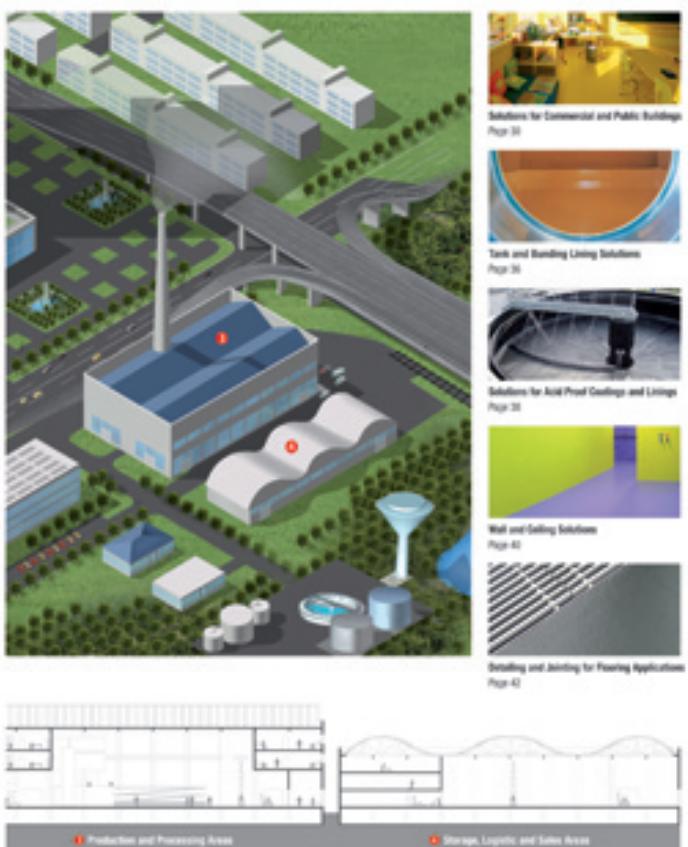
The uniform and homogeneous intermediate layer allows an overcoating with high solids and high build resin-based coatings within a short waiting time of 11 to 36 hours after application. There are no additional surface preparation measures necessary to achieve a pore-free smooth surface.

### Schematic of Planned Time Savings with Sika® EpoCem™ Technology:

The installation of the floor finishes and the time before additional works can commence or they can be put into operational service, represents a major time factor on many projects. The time saving and cost advantages obtained with **Sika® EpoCem™** Technology can be very substantial.



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# Sikafloor® Solutions for Storage, Logistic and Sales Areas



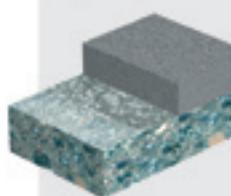
## Requirements

Two-Layer Concrete Slab for Accurate Levels and Ramps

- Adjustment of Level Differences



## Design / Build-up



## Sika System / Performance

Concrete slab using **Sikafloor®** or **Sika® ViscoCrete®** 840 Technology  
Bonding bridge (Sika polymer-modified cement-based mortar), Sika polymer-modified screed with powerfloat finish.



## Rapid Curing

Flooring systems with rapid curing properties can reduce the downtime to a minimum. This is often required during refurbishment, new construction and for low temperature applications. Sika has a complete range of fast curing and accelerated systems.



## Floor Coating on Green and Damp Concrete

In many refurbishment and new construction situations, freshly poured concrete must be coated and protected quickly. To reduce the waiting time for specific moisture evaporation from the substrate, innovative solutions such as **Sika® EpoCem® Technology** can be used.



## Crack-Bridging Ability

Static and dynamic crack-bridging properties are often required for floor coating systems in order to adequately protect the substrate, for instance on car park decks, office floors, sufficient stress relief and/or movement joints must be incorporated into the structure itself. Sika systems are tested for the crack-bridging performance down to at least -20°C.



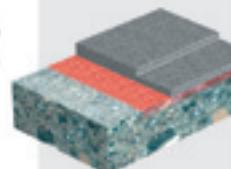
## Damping of Impact Noise

Public transit and gathering places, such as entrance halls, corridors, display and sales areas require higher comfort levels against impact noise and airborne noise transmission. For this reason, flexible Sika flooring systems are recommended.

**Note:** **SikaFloor®** adhesives are also available to help wooden floor systems meet these same objectives including the new European Part II sound transmission regulations.

## Temporary Moisture Barrier on Self-Smoothing "Green" or Damp Concrete

- For permeable floors with damaged or missing waterproof membrane
- Reduced waiting time to overcoat green concrete
- No blisters or popping when coating damp concrete



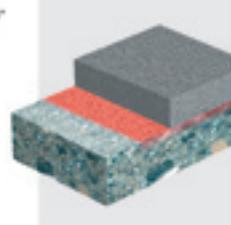
## Power: Sikafloor®-100 W/M

Screed: **Sikafloor®-01 EpoGem®**  
Layer thickness: 2-3 mm  
or **Sikafloor®-02 EpoGem®**  
Layer thickness: 4-7 mm  
Both are 3-component epoxy modified cementitious, self-smoothing screeds. Topping: **Sikafloor®** resin to suit.



## Temporary Moisture Barrier on "Green" or Damp Concrete

- For permeable floors with damaged or missing waterproof membrane
- No waiting time on "green" or damp concrete
- No blisters in the finish when coating damp concrete



## Concrete slab using Sika concrete structure technology

Power: **SikaTop®-Armatex®-110 EpoCem®**  
Screed: **Sikafloor®-03 EpoCem®**  
Layer thickness: > 8 mm  
use as a moisture barrier for subsequent Sikafloor® toppings



\* Notes:  
1. The Sikafloor® products in this brochure are of synthetic and don't affect the res screed and the rest product of the bulk screed.  
2. The project related performance requirements such as are all listed on page 46 to 60.



## Neutral Odour, VOC-Free

Total solids or solvent free systems with neutral odour and low VOC emissions should always be considered where appropriate, such as indoor (internal) or closed area applications.



## Electrical Conductivity/ESD

There is an increasing demand for conductive flooring solutions. These systems are used to protect sensitive devices from damage or to avoid the potentially explosive effects in removable atmospheres. Sika is a world leader in this technology for both floor and wall coatings. Please also see Pages 23 to 25 of this brochure.



## Cleaning and Maintenance

In order to ensure that Sika flooring solutions stay in the best of shape and give years of satisfaction, we provide fully detailed cleaning and maintenance advice and guidelines for your convenience in the **Sikafloor® Cleaning Regime**, which is available to download from: [www.sika.com](http://www.sika.com).



## Thermal Conductivity

Users can perceive the warmth of a floor to their feet very differently and subjectively. In addition to the ambient room and floor surface temperatures, the thermal conductivity of the substrate is usually the most significant factor. Sika provides highly insulated and elastic ComfortFlooring solutions where this is an issue. – Please also refer to Page 22 of this brochure.

## Project Related Performance Requirements (continued)



### Multiple Colour Shades

The **Sikafloor®** range is available in almost every static colour shade and special colours can be made to order or matched to a client's requirements.



### UV Light Resistance

Where colour is important or where high UV light radiation exposure is anticipated, stability resistant and light fast **Sikafloor®** Systems are available.



### Resistance to Furniture Castors

The wheels or castors on many chairs and other furniture are relatively small in diameter and therefore can create heavy point loads on the floor. Only suitable flooring systems with proven abrasion resistance should be chosen.



### VOC/AMC Emissions

One of the main objectives for flooring and wall coatings in classrooms is to prevent the potentially damaging effects of VOC/AMC's (volatile organic compounds). Before Whole-Car Conformity being released into the atmosphere and affecting the quality of the sensitive materials produced in these areas. The **Sikafloor® CR** systems are the "state of the art" in this technology and have been tested to give the best performance on the global market.



### For Food Contact

Flooring in the food and beverage industry has to be suitable for direct contact, or to be in close proximity to food stuffs, without adversely affecting them as well as being able to withstand the extremely intensive cleaning regimes and frequent exposure to aggressive chemicals. Many **Sikafloor®** Systems have full food-safe and potable water contact approvals.



### Particle Emissions

Cleanroom suitability and cleanliness of the additional parameters relevant to the manufacture of specific products under clean conditions, such as particle emissions. Please also refer to the **Sikafloor® CR** systems on Pages 20 to 21.



### Flatness and Level

For providing a smooth flat or horizontal (level) surface for use performance requirements, such as prior to the application of final covering courses like carpets, resilient flooring, wood floors, sports floors or tiling in indoor residential or public access areas, or for high performance specifications requiring extreme values for defined traffic, high storage facilities or pneumatic transport.

## Refurbishment

**Sikafloor®** cementitious, self-smoothing pumped screeds last from 5 – 25 mm even the creation of a uniform and leveled surface. These vapor permeable and rapid-drying screeds provide very economic solutions. **Sika® EpoCem®** Technology is again frequently used in refurbishment projects or during a change of use, when the existing floors have rising or high moisture contents but need to be overcoated.

## Racking Areas

**Sikafloor®** solutions provide a bright coloured floor that can be installed in a wide range of thicknesses and with a variety of surface textures. They are seamless, non-porous and non-slipping with good chemical resistance. These properties make the floor hygienic and easy to clean as well as hard and durable, so they are ideally suited for dry process and racking storage areas.

## Cold Storage Areas

**Sikafloor®** solutions can provide durable flooring solutions for cold storage areas even in the most severe conditions of extreme mechanical, chemical and thermal exposure.



## Sikafloor® Solutions for Storage, Logistic and Sales Areas

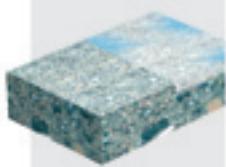


### Requirements

#### Surface Hardener for Concrete

- Economic surface hardening
- Good abrasion resistance
- Prevent concrete dusting

### Design / Build-up



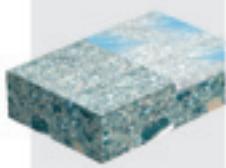
### Sika System / Performance

**1 – 2 : Sikafloor®-CureHard-24**  
A sodium silicate based liquid hardener sprayed and brushed into the substrate.



#### Concrete Curing and Sealing, Water Based

- Curing to ASTM C-309
- Prevent dusting
- Seal concrete surface
- Very low VOC



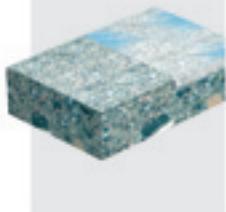
#### Sikafloor®-Proseal W

A one part, water-based acrylic emulsion.



#### Concrete Curing and Sealing, Solvent Based

- Curing to ASTM C-309
- Sealing and hardening
- Fast film formation

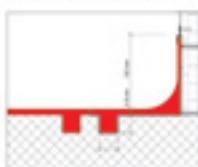
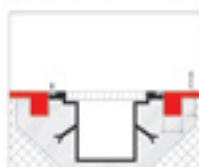
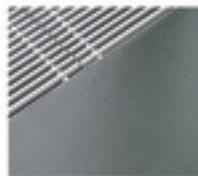


#### Sikafloor®-Proseal-23

A one part, transparent, solvent-based acrylic resin polymer solution.



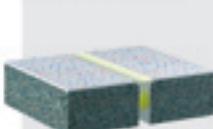
## Detailed and Jointing for Flooring Applications



### Drainage Channels/Gullies

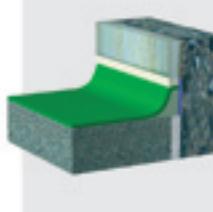
Drainage channels/gullies should always be designed to be outside of trafficked areas whenever possible. Pools on the floors should be adequately to discharge liquids as quickly as possible to the channels. When traffic over channels/gullies is unavoidable, considerable attention should be given to the channel areas and cover gratings, as these are the most susceptible areas for premature failures.

### Jointing Design / Build-up



### High-Performance Sealant for Flooring

- Compliance for contact with foodstuff, in IFSQSA
- In accordance with relevant international guidelines and standards
- Applicable for damp substrates in four joints
- High mechanical resistance
- Resistant to floor cleaning machine brushes
- Excellent wear resistance
- Movement capacity 20%
- Resistant against most cleaning agents
- Compatible with Sikafloor® Systems
- Easy-to-apply



#### Primer: Sikafloor® Primer-3 N

A moisture curing 1-part elastic sealer based on polyurethane for flooring.

Joint Dimensions:

min. 10 mm, width = 10/20 mm



1) The 3D graphics in the brochure are an estimate and start reflect the real sizes and the real proportion of the basic gels. 2) The project related performance requirements such as load are all listed in chapter 4 to 6.



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## Project Related Performance Requirements



### Traffic and Mechanical Wear

**Heavy and frequent traffic** increases physical requirements for mechanical resistance measured as abrasion. Often the greatest wear or exposure occurs in located areas. Tracking areas or sections around specialized plant for example, may require different or additional treatment to the surrounding general floor area.

**Chemical Resistance**  
Resistance to chemical attack is a major factor for many floors. Resists: Assess the effects on the floor of the individual chemicals present plus their combined or mixed effects and the consequences of any chemical reactions. Higher temperatures usually increase the aggressive nature of chemicals.

**Service Temperature**  
Thermal shock resistance can be a major requirement for floors. It is important to consider not only the temperature of operating machinery and the products in the processes, but also the temperature of adjacent areas. At either end of the scale, the splits of chemicals and temperature extremes from hot water or steam used for cleaning and cold from liquid freezers can represent an extremely demanding environment, which many Sikafloor® systems can durability accommodate.

**Slip Resistance**  
Floor areas may require different degrees of slip resistance, dependent on their environment, i.e. 'wet' or 'dry' processing areas. This is principally a question of selecting surface profile and finish, with the demands for ease of cleaning and the type and likelihood of spillages. Generally speaking the greater the profile, the greater the slip resistance.



### Fire Resistance

Fire classifications for floors are given by national and local authorities. Floors protected and designed with liquid polymers also have to meet these requirements, which is no problem for Sikafloor® systems.

### Hygiene

Today's floors have to fulfil the highest hygiene and increasingly very specific requirements for the prevention of contamination, particularly in the nuclear, pharmaceutical, cosmetic, food, beverage, chemical and electronics industries.

### Impact Resistance, Point Loading

In areas where goods are handled such as production areas, warehouses, loading bay etc., compressive and dynamic loads are generated by the movement of these goods or lines, lift trucks and pallets etc. It is essential to ensure that the stresses generated are not higher than the strength of the floor covering material and/or the substrate.

### Waterproofing

Sikafloor® systems can provide an impervious seal to protect both the concrete from attack by aggressive liquids and the underlying ground water from the leakage of pollutants. This ensures the reliable containment of these aggressive and environmentally harmful materials.



### Requirements

#### Monolithic Finish for Concrete

- Economic hardener
- Good abrasion
- Good impact resistance
- Colours available

### Design / Build-up



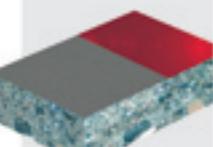
### Sika System / Performance

Monolithic concrete slab using Sikament® or Sikafloor® ViscoCrete® SCC technology. Dry-shake floor hardener Sikafloor®-1 QuartzTop applied to the fresh concrete slab before the power float finish, surface cured and densified with Sikafloor®-Proseal W or Sikafloor®-Proseal-23.



#### Tough Monolithic Finish for Concrete

- Tough and durable
- Very good abrasion resistance
- Very good impact resistance

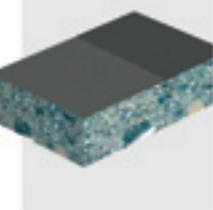


Monolithic concrete slab using Sikament® or Sikafloor® ViscoCrete® SCC technology. Dry-shake floor hardener Sikafloor®-1 MetalTop applied to the fresh concrete slab before the power float finish, surface cured and densified with Sikafloor®-Proseal W or Sikafloor®-Proseal-23.

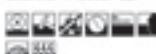


#### Heavy Duty Monolithic Finish for Concrete

- Excellent abrasion resistance
- Excellent impact resistance
- Extreme durability
- Conductive properties



Monolithic concrete slab using Sikament® or Sikafloor® ViscoCrete® SCC technology. Dry-shake floor hardener Sikafloor®-1 MetalTop applied to the fresh concrete slab before the power float finish, surface cured and densified with Sikafloor®-Proseal-23.



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## Sikafloor® Solutions for Storage, Logistic and Sales Areas



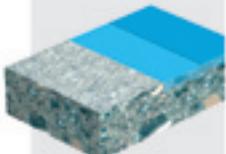
### Requirements

Water Dispersed, Coloured Roller Coating

- Light to medium wear resistance
- Surface stabilisation
- Protective concrete coating
- Coloured



### Design / Build-up



### Sika System / Performance

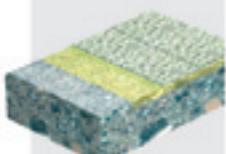
#### 2 x Sikafloor®-2530 W

It has part, water dispersed, coloured, epoxy resin based coating. Total layer thickness: 0.15 – 0.25 mm.



### Textured, Coloured Rigid Coating

- Good wear and abrasion resistance
- Good chemical resistance
- Slip resistance
- Easy cleaning
- Coloured



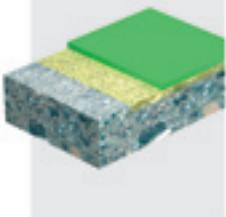
### Primer Sikafloor®-156/-154

Coupling Sikafloor®-254 Thinner. It has part, total solid, coloured, epoxy binder for textured-coating systems. Total layer thickness: 0.6 – 0.8 mm.



### Smooth Coloured Rigid Coating

- High wear and abrasion resistance
- Good impact-resistance
- Good chemical resistance
- Medium thermal resistance
- Easy cleaning
- Coloured



### Primer Sikafloor®-156/-154

Wearing course: Sikafloor®-253 SL. It has part, coloured epoxy binder for self-smoothing screed systems. Total layer thickness: 2 – 3 mm.



## Design and Construction with Sika Flooring Systems

### Structural Requirements



The static and dynamic loadings that will be imposed during both construction and service have to be considered. The floor covering must be capable of withstanding these demands, but it can only function as well as the substrate to which it is applied, i.e. the structural concrete slab or screed.

Note: In some instances the floor slab may require structural strengthening – for example with Sika's CarbideDur® Composite Strengthening systems.

### Colour and Appearance

In addition to providing assistance concrete protection against corrosion by acids and mechanical wear, flooring should also meet easy-care, hygiene, safety and durability requirements with the appropriate colour for the environment.

Achievement of both the architect and the customer's requirements always requires consideration of both functional and aesthetic criteria. With Sikafloor® systems a wide variety of colours, textures and visual effects can also be produced in floors which provide the overall functional performance.



### Key Requirements for Consideration in Selecting a Floor System



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## Life Cycle Management and Total Quality Management



### Design Life

This is possibly the most fundamental criterion and is certainly the first question to ask when selecting a floor. What is the required design life – 2, 5, 10 or 20 years? Is frequent or regular maintenance feasible or desirable? The floor specification must obviously be designed to meet this life expectancy and durability, including the intended maintenance-free periods.

### Life Cycle Costing

Different industries have different life cycle expectations for flooring systems. The cleaning and maintenance regime required for the floor has the highest impact on the life cycle cost. Sika can provide optimised flooring solutions to meet all of the specific requirements you may have.

### Complete Solutions and Full System Supplier

Sika can provide this complete range of flooring solutions worldwide, including resin based, cementitious and polymer modified products. Additionally, Sika provides the optimum quality and security for any client, specifier and contractor, with services including:

- Preliminary project assessment
- Detailing, planning prior to and during application
- Cleaning and Maintenance Guidelines



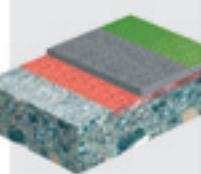
### Requirements

#### Cementitious Self-Smoothing Screed for 5 – 25 mm [Vapour Permeable]

- Smooth, level surface
- Rapid drying
- Vapour permeable
- Thin to medium layer thickness

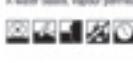


### Design / Build-up



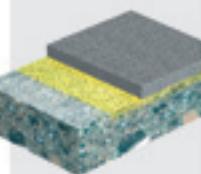
### Sika System / Performance

Primer: Sikafloor®-156/-154 Broadened with quartz sand  
Screed: Sikafloor®-Level-25 A one-component, polymer modified cementitious screed  
Topping: Sikafloor®-2530 W A water-based, vapour permeable coating



#### Cementitious Self-Smoothing Screed for 5 – 25 mm

- Smooth, level surface
- Rapid drying
- Thin to Medium layer thickness

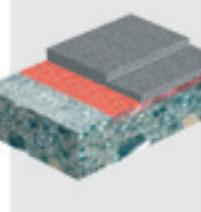


Primer: Sikafloor®-156/-154 Broadened with quartz sand  
Screed: Sikafloor®-Level-25 A one-component, polymer modified cementitious screed  
Topping: Sikafloor®-resin to suit



#### Temporary Moisture Barrier on Self-Smoothing "Green" or Damp Concrete

- For cementitious floors with damaged or missing waterproofing measures
- No waiting time on "green" or damp concrete
- No blisters in the finish when coating damp concrete



Primer: Sikafloor®-156/-154 Broadened with quartz sand  
Screed: Sikafloor®-EpoChem® Layer thickness: 2 – 3 mm  
or Sikafloor®-EpoChem® Layer thickness: 4 – 7 mm  
Both are 2-component epoxy modified cementitious, self-smoothing screeds.  
Topping: Sikafloor® resin to suit



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# Sikafloor® Solutions for Production and Processing Areas



## Introduction

The biggest challenges for flooring systems in manufacturing facilities are generally the production areas. The floor not only has to withstand severe exposure, including mechanical, chemical and thermal influences, but also needs to provide the right degree of slip resistance to meet health and safety requirements. The Sikafloor® Systems applied in production areas are based predominantly on Cement, Epoxy and Polyurethane resin techniques. For special requirements, different binder and fibre systems are combined to achieve specific properties, e.g. Polyurethane and Cement in the Sikafloor® PurCom® range for high temperature and chemical resistance in wet environments. References from over 30 years experience, makes Sika the most professional flooring system supplier for production areas.



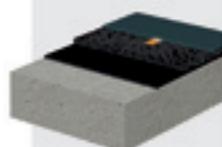
### Requirements

Smooth, Flexible, High Chemical Resistant, Glass Fabric Reinforced Coating

- High wear and abrasion resistance
- Highest chemical resistance
- Waterproofer
- Glass fabric reinforced

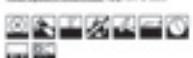


### Design / Build-up



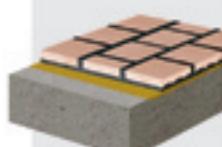
### Sika System / Performance

Primer: Sika® Asphit® VE  
Wearing course: Sika® Asphit® VE + glass fabric  
A two-part, highly chemical-resistant, crack bridging, coloured vinyl ester resin binder for plain fiber reinforced coating systems.  
Total system thickness: approx. 3 mm



### Bedding and Jointing Mortar for Acid Proof Tiles

- Good chemical resistance
- Good adhesion to tiles and the substrate
- Easy to clean



Primer: Sika® Asphit® ET  
Bedding mortar: Sika® Asphit® ET bedding and jointing mortar  
Jointing: Sika® Asphit® ET bedding and jointing mortar  
A two-part, high solid, coloured, rigid, high chemical-resistant epoxy-based bedding and jointing mortar for laying tiles in chemical, pharmaceutical, food and beverage plants.  
Total system thickness: Depending on the thickness of the tiles



### High Temperature Resistant Mortar

- Highest resistance to acids
- High resistance to oxidising agents
- Temperature resistance up to 300 °C
- Good adhesion to acid-resistant bricks



Notes:  
(1) The 20 profiles in this brochure are all symbols and don't represent the real properties of the actual products.  
(2) The project related performance requirements such as ■ are all listed on page 44 to 46



# Sikagard® Solutions for Walls and Ceilings



For many different exposure and performance reasons, according to the specific industry and scope of use of an area, the application of a protective wall coating is frequently necessary.

The electronic and optical industries need to have surfaces with minimal VOC's / AMCs or particle emissions, easy to clean and to ensure the area is dust free. For this increasingly demanding market Sikagard®-163 W CR already has all of the necessary certification and approvals.

Wine cellars, breweries and other areas where constant high humidity is present, require wall coatings with fungicidal and bactericidal properties to prevent the growth of mould and bacteria. Sikagard®-874 W has the ideal performance for these important areas.

Food & Beverage plants need wall coatings resistant to high pressure water jetting, detergents and other cleaning agents.

Sikagard®-Wallcoat® W is the best solution. It combines good chemical and mechanical resistance and ease of cleaning.



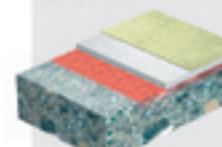
### Requirements

Gold Storage ( $> -10^{\circ}\text{C}$ ) Broadcast Coloured ESG Screened

- Medium wear resistance
- Medium thermal shock resistance
- Slip-resistance
- Coloured



### Design / Build-up



### Sika System / Performance

Primer: Sikafloor®-165 WM  
Base coat: Sikafloor®-41 EpoCom®  
Broadcast with quartz sand  
Seal coat: Sikafloor®-204  
Total layer thickness: 2 - 4 mm

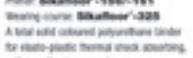


Gold Storage ( $> -10^{\circ}\text{C}$ ) Broadcast Extended Right Screened

- High wear resistance
- Good chemical resistance
- Medium thermal shock resistance
- Slip-resistance
- Coloured

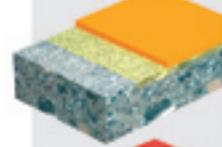


Primer: Sikafloor®-165L-165  
Wearing course: Sikafloor®-325  
A total solid coloured polyurethane binder for static-plastic thermal shock absorbing, self-smoothing screeds.  
Total layer thickness: 2 - 3 mm

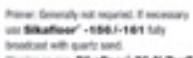


Frosting / Blast Freezing ( $> -20^{\circ}\text{C}$ ) Smooth Tough Elastic Screened

- High wear resistance
- Thermal shock resistance
- Easy cleaning
- Coloured

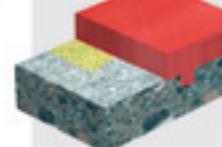


Primer: Sikafloor®-165L-165  
Wearing course: Sikafloor®-325  
A total solid coloured polyurethane binder for static-plastic thermal shock absorbing, self-smoothing screeds.  
Total layer thickness: 2 - 3 mm



Frosting / Blast Freezing ( $> -20^{\circ}\text{C}$ ) Heavy Duty Resistant Screened

- High wear resistance
- Thermal shock resistance
- Easy cleaning
- Coloured
- Slip-resistant



Primer: Generally not required. If necessary use Sikafloor®-165L-165 fully broadcast with quartz sand.  
Wearing course: Sikafloor®-320 N (PURCom®)  
Easy to sand, grit blast, heavy duty, 2-4 mm modified PU screed.  
Total layer thickness: 6 - 8 mm



# Production and Processing Areas

## Dry Areas

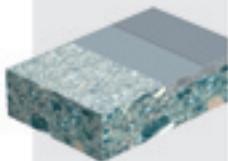


### Requirements

#### Coloured Rigid Coating

- Good wear and abrasion resistance
- Good chemical resistance
- Easy cleaning
- Coloured

### Design / Build-up



### Sika System / Performance

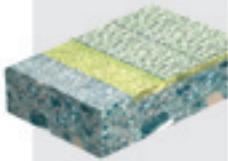
**2 x Sikafloor®-264**  
A two-part, total solid, elastomer, coloured rigid build coating based on epoxy resin.  
Total layer thickness: 8.6 – 9.8 mm



#### Textured, Coloured Rigid Coating

- Good wear and abrasion resistance
- Good chemical resistance
- Slip resistance
- Easy cleaning
- Coloured

### Design / Build-up



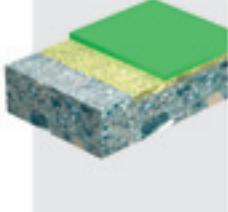
**Primer: Sikafloor®-154/1-61  
Coating: Sikafloor®-264 Thick**  
A two-part, total solid, elastomer, epoxy binder for textured coating systems.  
Total layer thickness: 8.6 – 9.8 mm



#### Smooth Coloured Rigid Coating

- High wear and abrasion resistance
- Good impact resistance
- Good chemical resistance
- Medium thermal resistance
- Easy cleaning
- Coloured

### Design / Build-up



**Primer: Sikafloor®-151  
Wearing course:  
Sikafloor®-263 SL**  
A two-part, coloured epoxy binder for self-smoothing screed systems.  
Total layer thickness: 2 – 3 mm

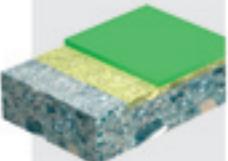


### Requirements

#### Smooth Flexible Chemical Resistant Coated

- High wear and abrasion resistance
- High chemical resistance
- Waterproof
- Coloured

### Design / Build-up



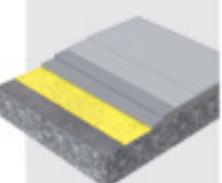
### Sika System / Performance

**Primer: Sikafloor®-156/151  
Wearing course: Sikafloor®-290**  
A two-part, highly chemically resistant, crack bridging, colored epoxy binder for self-smoothing screeds.  
Total system thickness: approx. 2 mm



#### Smooth, Rigid, Chemical Resistant Coating and Lining

- High chemical resistance
- Waterproof
- Roller and airless spray application



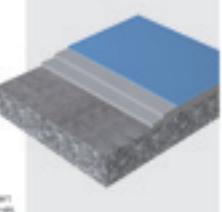
### Primer: Sikafloor®-155 W N Base coat: Sikagard®-790 EpoGem® Seal coat: Sikagard®-63 N

A two-part, coloured, rigid, highly chemically resistant epoxy coating for sewage treatment plants.  
Total system thickness: ca. 2 – 3 mm



#### Smooth, Rigid, Physiological Harmless Coating

- Certified for the use in potable water
- Easy to clean
- Resistant to many different degradations



### Pure Filtration: Aciment®-540

**Leveling mortar: Aciment®-540  
Seal coat: Sikagard®-136 DW**  
A total solid, coloured, protective epoxy coating for the interior lining of potable water installations and beverage tanks.  
Total system thickness: ca. 3 – 4 mm

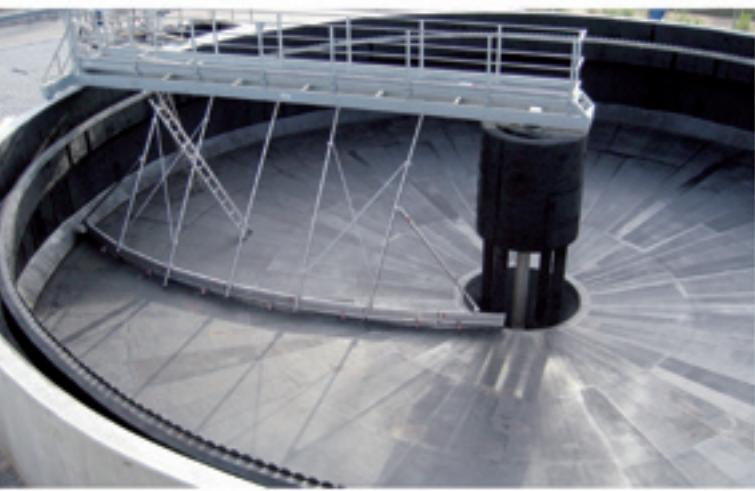


\* Notes:  
1) The 3D graphics in this brochure are all symbols and don't reflect the real sizes and the real proportion of the building.  
2) The project related performance requirements such as are all listed on page 41 to 46.

\* Notes:  
1) The 3D graphics in this brochure are all symbols and don't reflect the real sizes and the real proportion of the building.  
2) The project related performance requirements such as are all listed on page 41 to 46.



## Sika® Asplit® Solutions for Acid Proof Coatings and Linings



### Secondary Containment

As mentioned in the previous section, the protection of the soil and the groundwater is an increasing demand following on the legislation of most governments and authorities to protect the environment. Sika's leadership in this field has allowed us to develop highly chemically resistant, glass fabric reinforced, easy-to-apply coating systems that can fulfil all of these increasingly stringent requirements.

ince means a serious financial loss to the production of the soil and the groundwater is an increasing demand following on the legislation of most governments and authorities to protect the environment. Sika's leadership in this field has allowed us to develop highly chemically resistant, glass fabric reinforced, easy-to-apply coating systems that can fulfil all of these increasingly stringent requirements.

### Investigation and Survey of Areas to be Protected

Structures and production equipment in the chemical industry are subject to many different stresses. In order to discover the root causes and extent of damage and deterioration, it is essential to carry out a professional Condition Survey and assessment. It is important to balance the cost of the investigative work with the benefits it will provide. However, an appropriate survey can often be key to successfully extending the service life.

To ensure that you have all of the necessary parameters to make the right refurbishment proposals, Sika provides a Project Report Form which gives clear and useful guidance with the main criteria to make the right decisions.

### New Build

The construction and commissioning of new chemical production plants represents a huge investment. They are designed for a service life in excess of 20 years, so the durability of the protection for these assets is a very important requirement. Every non-scheduled down time for essential repairs or mainte-

nance means a serious financial loss to the production of the soil and the groundwater is an increasing demand following on the legislation of most governments and authorities to protect the environment. Sika's leadership in this field has allowed us to develop highly chemically resistant, glass fabric reinforced, easy-to-apply coating systems that can fulfil all of these increasingly stringent requirements.

**Refurbishment**

Most existing chemical production facilities need periodic maintenance and refurbishment. To make sure that the production process is running smoothly, the protection of the environment is assured and that the safety of the employees is not reduced, Sika is a full range system supplier, able to provide all of the necessary products for a plant's total refurbishment, i.e. cement based mortars for the refurbishment of the concrete as well as specialised coatings for steel structures and linings to protect process equipment.

### For Dry and Wet Areas

Most production areas can be divided into "dry" or "wet" processing areas. Flooring systems in "wet" process areas generally require a higher degree of slip-resistance, which must also be easily cleaned, and yet be resistant to the water and chemical exposure. Particularly in the production of quality foodstuffs, a clean floor in the working environment is of crucial importance.

"Dry" processing areas offer a balance between cleanliness and slip-resistance to meet the requirements for hygiene plus health and safety.

### Extreme Exposure (Combinations of Wet Conditions, Chemicals, Temperatures and Abrasion)

Sika has a complete range of flooring solutions for industrial applications that require durability under extreme exposure conditions of use. These conditions can vary from severe chemical attack and thermal exposure in the food industry, to high point loading and abrasion in the automotive industry.

The Sikafloor® PurCom® range will perform under the most demanding service environments and meet all of these individual requirements with flexible design possibilities. This includes a full range of non-slip / anti-slip profiles.

### Minimum Down Time for Production

Each day of downtime in production is very expensive at both new facilities and in refurbishment, it is essential to finish off of the construction work within the shortest possible time. Using the fast curing Sikafloor® PurCom® systems for maintenance and refurbishment projects can reduce the down time to a minimum. Systems can be designed to withstand extreme conditions with various degrees of slip-resistance and with surface finishes that will be easy-to-clean.



## Production and Processing Areas

Extreme Exposure (Combinations of Wet Conditions, Chemicals, Temperatures and Abrasion)



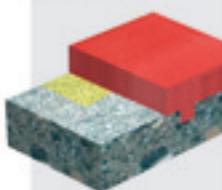
### Requirements

#### Heavy Duty Resistant Screen

- High wear resistance
- High chemical resistance
- High thermal shock resistance
- Slip resistance
- Odour-free
- Hygienic
- Coloured
- Easy cleaning incl. steam



### Design / Build-up



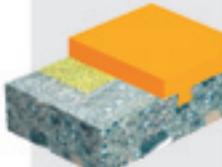
### Sika System / Performance

**Primer:** Generally not required. If necessary, use **Sikafloor®-150/A/B/E**  
Broadcast with quartz sand  
**Wearing course:** **Sikafloor®-20 N PurCoat®**  
Easy trowel grade, heavy duty, 3-4 part modified PU screed  
Total layer thickness: 8 – 10 mm



#### Medium Duty Resistant Screen

- High wear resistance
- High chemical resistance
- Medium thermal shock resistance
- Slip resistance
- Odour-free
- Hygienic
- Easy cleaning
- Coloured

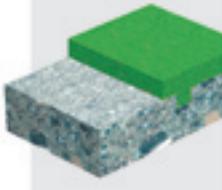


**Primer:** Scratch coat of **Sikafloor®-21 N PurCoat®** or **Sikafloor®-150/A/B/E**  
**Wearing course:** **Sikafloor®-21 N PurCoat®**  
Self levelling, heavy duty, 3-4 part modified PU screed  
Total layer thickness: 4,5 – 6 mm



#### Broadcast: Medium Duty Resistant Screen

- High wear resistance
- High chemical resistance
- Enhanced slip resistance
- Medium thermal shock resistance
- Hygienic
- Coloured



**Primer:** generally not required  
**Base coat:** **Sikafloor®-22 N PurCoat®**  
A 3-4 part water-based, enhanced slip-resistant, self-smoothing, polyurethane heavy duty screed. Broadcast with coloured or natural quartz sand.  
**Seal coat:** Optional 1-2 x **Sikafloor®-21 N PurCoat®**  
Total layer thickness: 4,5 – 6 mm



## Commercial and Public Buildings

Cementitious Underlayment



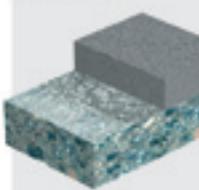
### Requirements

#### Cementitious Self Leveling Screed

- Cementitious self leveling
- Quick hardening
- Fast application
- Easy to place
- Reduced shrinkage
- Good drying
- Good surface hardness



### Design / Build-up



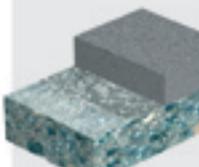
### Sika System / Performance

**Primer:** None, Saturated surface dry (SSD) or **Sika®-Level-01 Primer**  
**Base coat:** **Sika®-Level-100**  
Top layer: Wood floors, tiles, carpet, resilient sheets, polyurethane resin floors etc.  
Total layer thickness: approx. 1 – 10 mm



#### Cementitious Levelling Screed

- Cementitious self leveling
- Fast application
- Smooth and pore free surface
- Easy to place
- Low shrinkage
- Fast setting and drying
- Good surface appearance and hardness
- Very low emissions – ECO

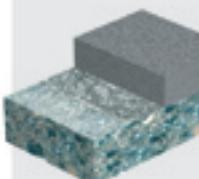


**Primer:** **Sika®-Level-01 Primer**  
**Base coat:** **Sika®-Level-200**  
Top layer: Wood floors, tiles, carpet, resilient sheets, polyurethane resin floors etc.  
Total layer thickness: approx. 8,5 – 10 mm



#### High Performance Cementitious Levelling Screed

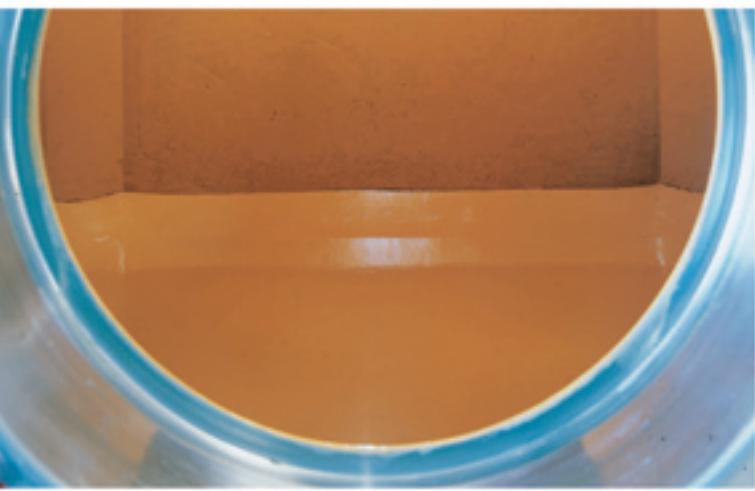
- Cementitious self leveling
- Fast application
- Very smooth and pore free surface
- Easy to place
- Low shrinkage
- Fast setting and drying
- Very good surface appearance and hardness
- Very low emissions – ECO



**Primer:** **Sika®-Level-01 Primer**  
**Base coat:** **Sika®-Level-300**  
Top layer: Wood floors, tiles, carpet, resilient sheets, polyurethane resin floors etc.  
Total layer thickness: approx. 8,5 – 10 mm



## Sikafloor® and Sikagard® Solutions for Tank and Bund Lining



### Secondary Containment Areas

To protect the soil and the groundwater is an increasing demand based on the legislations of many governmental authorities to protect the environment. Based on our experience handling many different kinds of chemicals, i.e. acids, bases and solvents, we pushed for the development of special, epoxy resin based, easy to apply coatings to fulfil these requirements. According to German standards the coating has to have crack bridging properties and the chemical resistance has to be tested against various different chemicals.

### Sewage Plants

Concrete and steel structures in sewage plants are exposed to different stresses. The waste water passes several steps of cleaning, starting with the mechanical cleaning and sedimentation, followed by biological degradation and finally chemical cleaning. Chemical stress is caused by the waste water, biogenic sulphuric acid corrosion and the chemicals which are added to keep the process running. Mechanical stress is caused by flushing and lifting aggregates transported by the water, water flow and waves. Depending on the area to be protected the right choice of material has to be made.

### Potable Water Installations

The intense protection of tanks and pipes in potable water installations is a very sensitive application field. Almost all countries in world do have their own legislations and certification procedure which has to be followed. Main target of the applied protective coatings is to preserve the potable water.

## Production and Processing Areas

### Wet Areas

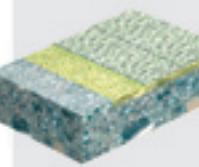


### Requirements

- Good wear and abrasion resistance
- Good chemical resistance
- Slip resistance
- Easy cleaning
- Coloured



### Design / Build-up



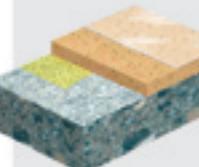
### Sika System / Performance

**Primer:** **Sikafloor®-150/-151**  
**Coating:** **Sikafloor®-264 Thix**  
A two part, film solid, coloured, epoxy binder for textured coating systems.  
Total layer thickness: 0,8 – 0,9 mm



#### Broadcast Decorative Screen

- High wear resistance
- Medium thermal shock resistance
- Slip resistance
- Coloured

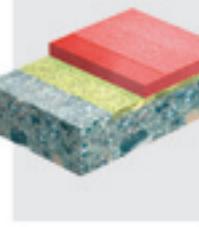


**Primer:** **Sikafloor®-150/-151**  
**Base coat:** **Sikafloor®-265 SL**  
A two part, film solid, coloured epoxy binder for self-smoothing screed systems. Broadcast with coarse quartz sand.  
**Seal coat:** **Sikafloor®-162 H**. A total solid transparent epoxy resin.  
Total layer thickness: 1,0 – 1,5 mm



#### Broadcast Coloured Rigid Screen

- High wear resistance
- Good chemical resistance
- Medium thermal shock resistance
- Slip resistance
- Coloured



**Primer:** **Sikafloor®-150/-151**  
**Base coat:** **Sikafloor®-264 SL**  
A two part, film solid, coloured, epoxy binder for self-smoothing screed systems. Broadcast with quartz sand.  
**Seal coat:** **Sikafloor®-162 H**. Total solid transparent epoxy resin.  
Total layer thickness: 1,0 – 1,5 mm



## Commercial, Residential and Institutional Areas

### Balconies and Stairways



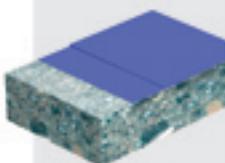
#### Requirements

Smooth Decorative Weather Resistant Coating

- Light wear resistance
- Crack bridging
- UV stability



#### Design / Build-up



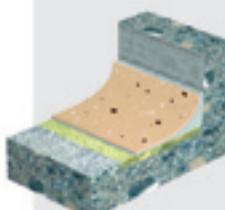
#### Sika System / Performance

**Primer:** Sikafloor®-400 N Elastic  
+ 10% Thinner C  
**Coating:** Sikafloor®-400 N Elastic  
A one-part, coloured, highly elastic, moisture curing polyurethane coating.  
Total layer thickness: approx. 0.5 - 0.8 mm



#### Smooth Crack-Bridging Decorative Screen

- Medium wear resistance
- Highly crack-bridging
- Decorative
- UV Light stability



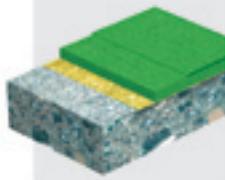
#### Primer:

**Sikafloor®-150/-181**  
Wearing coat: **Sikafloor®-400 N Elastic**  
A one-part, coloured, highly elastic, moisture curing polyurethane resin for self-smoothing systems (optionally sprinkled with coloured flakes).  
**Sealer:** **Sikafloor®-1D**  
A moisture curing polyurethane matt sealer.  
Total layer thickness: approx. 1 - 2 mm



#### Broadcast-Fast Curing Crack-Bridging Screen

- Medium wear resistance
- Medium chemical resistance
- Crack-bridging
- Rapid curing
- Slip resistance
- Decorative



#### Primer:

**Sikafloor®-1G/-13 Pronto**  
Base coat: **Sikafloor®-1S Pronto**  
An elastomeric 3-part binder for broadcast systems based on reactive acrylic resins. Broadcast with coloured quartz or natural quartz.  
**Seal coat:** **Sikafloor®-1B Pronto**  
option: **Sikafloor®-Pronto Pigments**.  
Total layer thickness: approx. 2 - 4 mm



## Production and Processing Areas

### Minimum Down Time for Production



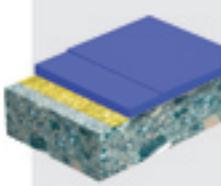
#### Requirements

#### Broadcast-Fast Drying Screen

- High wear resistance
- Medium chemical resistance
- Rapid curing
- Slip resistance



#### Design / Build-up



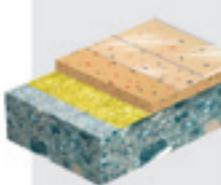
#### Sika System / Performance

**Primer:** Sikafloor®-18/-13 Pronto  
Base coat: **Sikafloor®-14 Pronto**  
A three-part binder for broadcast systems based on reactive acrylic resins. Broadcast with coloured or natural quartz sand.  
**Seal coat:** **Sikafloor®-Pronto Pigments**  
option: **Sikafloor®-Pronto Pigments**.  
Total layer thickness: approx. 2 - 4 mm



#### Smooth Fast-Curing Decorative Screen

- Medium wear resistance
- Medium chemical resistance
- Rapid curing
- Decorative

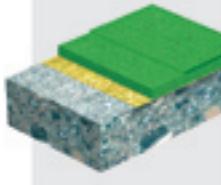


**Primer:** Sikafloor®-10/-13 Pronto  
Base coat: **Sikafloor®-14 Pronto**  
A three-part binder for self-smoothing systems based on reactive acrylic resins. Broadcast to excess with coloured flakes.  
**Seal coat:** **Sikafloor®-16 Pronto**.  
Total layer thickness: 2 - 4 mm



#### Broadcast-Fast Drying Elastomeric Screen

- Medium wear resistance
- Medium chemical resistance
- Thermal shock resistance
- Rapid curing
- Slip resistance
- Decorative



**Primer:** Sikafloor®-18/-13 Pronto  
Base coat: **Sikafloor®-18 Pronto**  
An elastomeric three-part binder for broadcast systems based on reactive acrylic resins. Broadcast with coloured or natural quartz sand.  
**Seal coat:** **Sikafloor®-17 Pronto**  
option: **Sikafloor®-Pronto Pigments**.  
Total layer thickness: 2 - 4 mm



## Sikafloor® and Sikagard® for Cleanroom Areas



#### Introduction

In recent years Sika has developed advanced new flooring and wall coating solutions for cleanroom environments. Manufacturing under cleanroom conditions is increasingly becoming more widespread and demanding, with regards not only to VOC / IARC-susceptive Organic Compounds / Hetero Molecular Contaminants, but also to particle emissions. The number of products which have to be produced and processed under cleanroom conditions is constantly growing, from electronics and automotive to food, pharmaceuticals and cosmetics. In many of these industries, cleanroom manufacturing plus a high degree of component cleanliness are now essential to achieve their desired product quality.

The **Sikafloor®-CR** and **Sikagard®-CR** ranges are the State-of-the-Art in products specifically developed for floor and wall coatings in cleanroom environments.

#### Performance Related Advantages

**Sikafloor®** and **Sikagard®** cleanroom suitable products have been tested to particle emissions, so that the different material pairings can be classified into cleanroom classes in accordance with the international standard ISO 14644-part 1. Furthermore, **Sikafloor®** and **Sikagard®** cleanroom suitable products have been specially designed and tested to meet the stringent outgoing requirements for cleanroom environments in accordance with the international standard ISO 14644-part 1.

#### Individual Design Opportunities

**Sikafloor®** and **Sikagard®** are suitable for:

- All clean manufacturing facilities with a controlled level of contamination, such as maximum particle and VOC/IARC emissions
- All manufacturing facilities where cleanroom product performance is demanded to ensure high standards of cleanliness, including those for semi-conductors, optical goods, electronics, biotechs, pharmaceuticals and in the automotive and hospitals.

#### Industrial Alliance Cleanroom Suitable Materials - CSM

The Foundation IPM founded the Industrial Alliance CSM and organizes the most work topics and coordinates the required research involving the recording and analysis of data. The aim of founding the industrial alliance "Cleanroom Suitable Materials" was to form a sound scientific basis for assessing the cleanroom suitability of materials and for determining material selection criteria for clean applications.



#### Test Bench "Material Inspec"



#### Application Related Advantages

- Easy to apply with no restrictions compared to standard epoxy application
- Flexibility in the system build up to serve individual requirements
- Very low odour

## Commercial and Public Buildings

### Comfort Flooring Systems



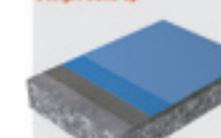
#### Requirements

#### Smooth Low VOC-Enclosed Elastic Screen

- Low VOC emissions
- Good wear resistance
- Good impact resistance
- Crack-bridging
- Coloured



#### Design / Build-up



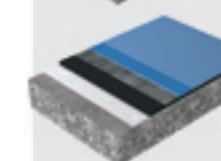
#### Sika System / Performance

**Sika®-ComfortFloor®**  
Primer: **Sikafloor®-144/-181**  
Base coat: **Sikafloor®-330**  
Sealer: **Sikafloor®-305 W**  
Total system thickness: ca. 2 - 3 mm



#### Smooth Low VOC-Enclosed Sound Insulating Screen

- Low VOC emissions
- Noise-absorbent
- Good impact sound insulation
- High comfort
- Good wear resistance
- Good impact resistance
- Crack bridging

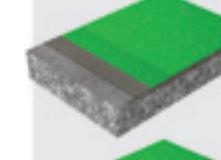


**Sika®-ComfortFloor® Prf®**  
Adhesive: **Sikafloor®-Comfort Adhesive**  
Rubber mat: **Sikafloor®-Comfort**  
Required: **Sikafloor®-181 H**  
Pore filter: **Sikafloor®-Comfort Porefilter**  
Base coat: **Sikafloor®-330**  
Sealer: **Sikafloor®-305 W**  
Total system thickness: ca. 2 - 3 mm

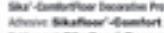


#### Smooth-Low VOC-Decorative Elastic Screen

- Low VOC emissions
- Good wear resistance
- Good impact resistance
- Crack bridging
- Decorative



**Sika®-ComfortFloor® Decorativ®**  
Primer: **Sikafloor®-144/-181**  
Base coat: **Sikafloor®-305 W**  
Broadcast: Coloured flakes (optional)  
Sealer: **Sikafloor®-304 W**  
Total system thickness: ca. 2 - 3 mm



#### Smooth-Low VOC-Decorative Sound Insulating Screen

- Low VOC emissions
- Noise-absorbent
- Good impact sound insulation
- High comfort
- Good wear resistance
- Good impact resistance
- Crack bridging
- Decorative



**Sika®-ComfortFloor® Decorativ® Prf®**  
Adhesive: **Sikafloor®-Comfort Adhesive**  
Rubber mat: **Sikafloor®-Decorativ**  
Required: **8480**  
Pore filter: **Sikafloor®-Comfort Porefilter**  
Base coat: **Sikafloor®-304 W**  
Broadcast: Coloured flakes (optional)  
Sealer: **Sikafloor®-304 W**  
Total system thickness: ca. 2 - 3 mm



# Commercial and Public Buildings

## Decorative Flooring Systems



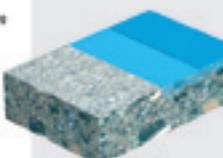
### Requirements

Water Dispersed, Coloured Roller Coating

- Light to medium wear resistance
- Surface stabilisation
- Protect concrete during
- Coloured



### Design / Build-up



### Sika System / Performance

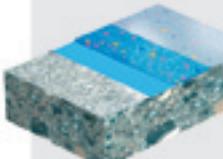
2 x Sikafloor®-2630 W

- A two part, water dispersed, coloured, epoxy based coating.
- Total layer thickness: 8.15 - 8.25 mm



### Decorative Roller Coating

- Wear-resistance
- Easy cleaning
- Decorative



2 x Sikafloor®-264

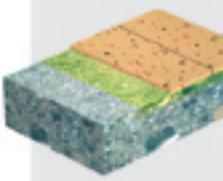
- A two part, coloured, high build epoxy resin coating, sprinkled with coloured flakes.
- Sealer Sikafloor®-304 W
- A water dispersed polyurethane based matt sealer.

Total layer thickness: 4.6 - 6.5 mm



### Smooth Decorative Screen

- Good wear resistance
- Easy cleaning
- Decorative



Primer Sikafloor®-156/-161

- Base coat Sikafloor®-263 SL
- A two part, total solid, coloured, epoxy binder for self-smoothing screed systems, sprinkled with coloured flakes.

Sealer Sikafloor®-304 W

- A water dispersed polyurethane based, matt sealer.

Total layer thickness: 1 - 2 mm



\* Notes:  
① The 10 practices in Sikafloor® are all specific and don't reflect the real sizes and the real properties of the building.  
② The project related performance requirements such as are all listed on page 48 to 60.



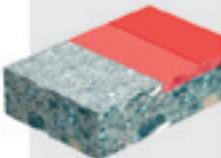
### Requirements

Low VOC Roller Coating

- Low VOC/HVOC emissions
- Low particle emissions
- Medium wear resistance
- Medium chemical resistance
- Easy cleaning
- Coloured
- PA certificate "Oeko-tex Suitable Materials"



### Design / Build-up

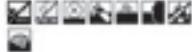


### Sika System / Performance

2 x Sikagard®-163 W CR

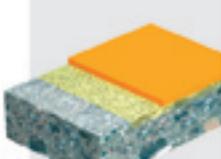
- A coloured, water dispersed epoxy resin based coating for floors and walls.

Total layer thickness: 0.3 - 0.5 mm



### Smooth Low VOC Screen

- Low VOC/HVOC emissions
- Low particle emissions
- High wear resistance
- Conductive
- Good chemical resistance
- Coloured
- PA certificate "Oeko-tex Suitable Materials"

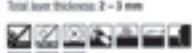


Primer Sikafloor®-156/-161

Smoothing primer: Sikafloor®-266 CR

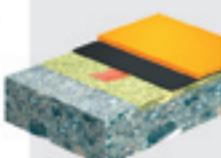
A two part, total solid, low-emission, coloured, epoxy binder for self-smoothing screed systems.

Total layer thickness: 2 - 3 mm



### Smooth Low VOC Conductive Screen

- Low VOC/HVOC emissions
- Low particle emissions
- Conductive
- High wear resistance
- Good chemical resistance
- Coloured
- PA certificate "Oeko-tex Suitable Materials"



Primer Sikafloor®-156/-161

Conductive layer:

Sikafloor®-266 W Conductive

Smoothing primer:

Sikafloor®-266 ECF CR

A two part, total solid, electrostatic conductive, low-emission, coloured, epoxy binder for self-smoothing screed systems.

Total layer thickness: 4 - 5 mm



20121

## Sikafloor® Solutions for ESD- and Conductive Requirements

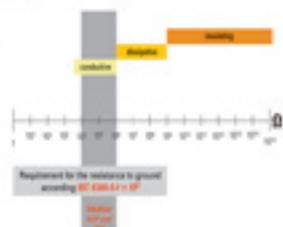


### Introduction

In industries where electronic components or volatile chemicals are involved, static electricity can result in significant damage, injury and financial loss. All active electronic components and equipment e.g. micro-chips, integrated circuits and machinery are sensitive to electrostatic discharges (also known as ESD events). Even when areas and people are equipped to handle such static sensitive devices, movement and damage can occur. Sikafloor® ESD (Electro Static Discharge) and ECF (Electrically Conductive Flooring) Systems, can safeguard your entire process. These systems can be designed to produce a floor tailored to meet your specific needs.

### Resistant Ranges According to IEC 68348-5-1

### Application Range and Requirements



### What Does an ESD Event Do?

An ESD event is an Electro Static Discharge, which is basically a spark (a micro lightning bolt in effect), which passes from one charged conductive surface to another. This incredibly rapid transfer of what had previously been a static (non-moving) charge can cause fire, explosion, create heat, light and even smoke. It is this potentially uncontrolled, unpredictable micro-lightning or spark without warning that must be prevented or controlled.

### Individual Design

The Sikafloor®-Decorative-Floor range meets the need for individual and decorative designs in commercial, retail and leisure facilities using coloured chips, aggregates or other special fibers. These floors allow you to create many different surface designs, ranging from traditional to powerfully finished.

Sikafloor®-ComfortFloor® solutions can be produced in a wide range of different colour shades, with special colours made-to-order. This allows you to create your own individual design or extend your Corporate Identity with your floors.

### Comfort and Care

Sikafloor®-ComfortFloor® solutions for commercial and public buildings areas are soft enough to provide comfort in those areas where personnel stand for long periods of time. These resilient flooring solutions not only reduce footfall noise and horizontal noise transmission, but also resist scratching by deformation and recovery.

### Sikafloor®-ComfortFloor® Solutions

- Low VOC emissions
- Noise absorption
- Floor impact sound insulation
- High comfort
- Good wear-resistance
- Good impact-resistance
- Crackbridging
- Decorative



30 | 31

## Areas with ESD or Conductive Requirements

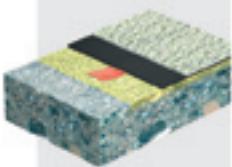


### Requirements

#### Textured Conductive Coating

- Good wear and abrasion resistance
- Good chemical resistance
- Slip-resistance
- Easy cleaning

### Design / Build-up



### Sika System / Performance

#### Primer: Sikafloor®-150/-151

#### Conductive Layer: Sikafloor®-230 W

#### Conductive

#### Sikafloor®-232 AS N Thick

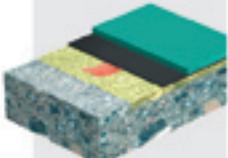
A two-part, total solid, electrostatically conductive, coloured, epoxy binder for textured coating systems.  
Total layer thickness: 0.6 - 0.8 mm



### Smooth Conductive Screen

- High wear and abrasion resistance
- Good chemical resistance
- Coloured
- Easy cleaning

### Design / Build-up



### Sika System / Performance

#### Primer: Sikafloor®-150/-151

#### Conductive Layer: Sikafloor®-230 W

#### Conductive

#### Wearing course: Sikafloor®-232 AS N

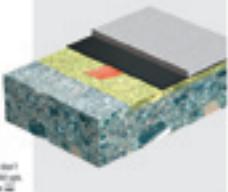
A two-part, total solid, electrostatically conductive, coloured, epoxy binder for self-smoothing screed systems.  
Total layer thickness: approx. 2 mm



### Smooth ESD Screen

- High wear and abrasion resistance
- Good chemical resistance
- Coloured
- Easy cleaning

### Design / Build-up



### Sika System / Performance

#### Primer: Sikafloor®-150/-151

#### Conductive Layer: Sikafloor®-230 W

#### Conductive

#### Wearing course: Sikafloor®-232 ESD

A two-part, total solid, electrostatically dissipative, coloured, epoxy binder for self-smoothing screed systems.

Total layer thickness: approx. 2 mm



\* Notice:  
1) The 3D graphics in this brochure are all symbolic and don't reflect the real sizes and the real properties of the building.  
2) The product related performance requirements such as ESD are all listed in page 40 to 46.



## Multi-Storey and Underground Car Parks Top Decks and Exposed Areas

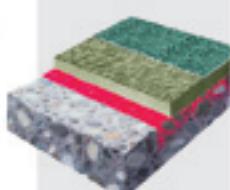


### Requirements

#### Broadcast: Coloured Flexible Screen

- Static crack-bridging properties up to -30 °C
- Coloured
- Waterproof
- Abrasion resistant

### Design / Build-up



### Sika System / Performance

#### Primer: Sikafloor®-150/-151

#### Base coat: Sikafloor®-300

#### Broadcast: Quartz sand

#### Seal coat: Sikafloor®-350/-350 N

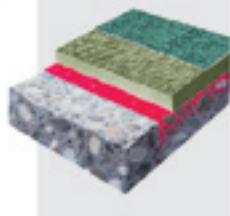
A total solid, coloured, flexible, protective waterproofing and wearing surface for car park decks.

Total system thickness: ca. 2 - 3 mm



#### Broadcast: Crack-Bridging Coloured Screen

- Dynamic and static crack-bridging properties up to -30 °C
- Coloured
- Waterproof
- Abrasion resistant
- Meets German Standard (D5-11b)



#### Primer: Sikafloor®-150/-151

#### Wearing course: Sikafloor®-350 N

#### Elastic

#### Broadcast: Quartz sand

#### Seal coat: Sikafloor®-350/-350 N

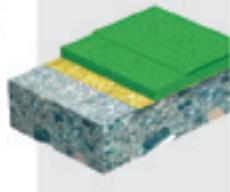
A total solid, coloured, fast curing, elastic, protective waterproofing and wearing surface for car park decks.

Total system thickness: ca. 3 - 4 mm



#### Broadcast: Fast Curing Crack-Bridging Screen

- Crack-bridging properties
- Coloured
- Waterproof
- Abrasion resistant
- Fast cure



#### Primer: Sikafloor®-150/-151 Pronto

#### Base coat: Sikafloor®-10 Pronto

#### Broadcast: Quartz sand

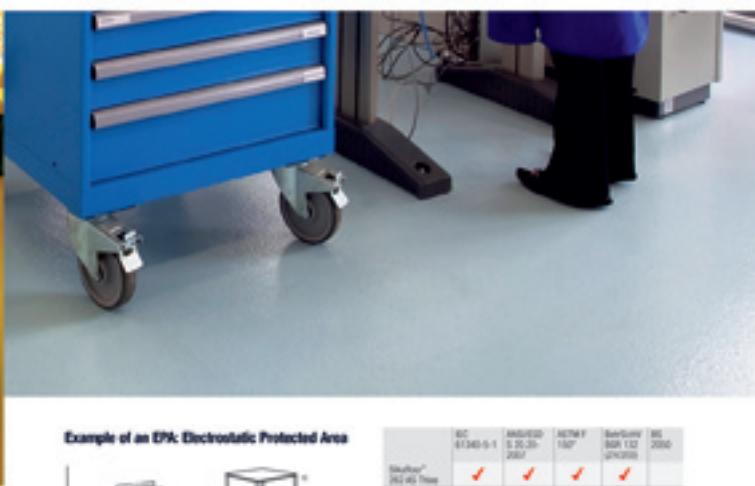
#### Seal coat: Sikafloor®-10 Pronto

A total solid, coloured, fast curing, elastic, protective waterproofing and wearing surface for car park decks.

Total system thickness: ca. 2 - 4 mm



## Sikafloor® Solutions for Commercial and Public Buildings



### Introduction

Sika has designed flooring solutions, especially for the use in schools, museums, retail, leisure, healthcare facilities and other commercial and public buildings.

This Sikafloor range combines individual design with comfort and care including the lowest ESD emissions in order to create a unique flooring experience.

### Example of an ESD: Electrostatic Protected Area



1. Insulated wheels
2. Insulated surfaces
3. Wrist band and foot wear isolator
4. Footwear isolators
5. Wrist band and grounding cord
6. Grounding cord
7. Ground
8. Earth bonding point (ESP)
9. Insulated point of entry
10. Ice and heel drag eliminators
11. Antistatic
12. Dissipative surfaces
13. Sealing with groundable feet and posts
14. Sikafloor® ESD or Conductive Systems
15. Garments
16. Shielding with grounded surfaces
17. Groundable racking
18. ESD signs
19. Machines

	IEC 61340-5-1	ANSI/ESD S2.30-2002	ASTM F 1527	BSI EN 12007/2000	BS 2000
Sikafloor®-262 AS True	✓	✓	✓	✓	✓
Sikafloor®-262 AS	✓	✓	✓	✓	✓
Sikafloor®-262 ESD	✓	✓	✓	✓	✓
Sikafloor®-261 AS	✓	✓	✓	✓	✓
Sikafloor®-261 AS	✓	✓	✓	✓	✓
Sikafloor®-260 AS	✓	✓	✓	✓	✓
Sikafloor®-1 Maitland					✓

### Specification

No specific conductivity or electrical resistance values mentioned in any of the international or national standards in the table shown above are mandatory. The values can be adapted to meet the local requirements by the responsible authorities.

Before applying an ESD or conductive flooring system, Sika always recommends a detailed assessment of at least the following parameters and then for the appropriate values to be agreed and accepted by all of the parties involved:

- Levels for the electrical resistance and body voltage generation
- Methods of measurement
- Equipment to make these measurements
- Any applicable standards or specifications



# Sikafloor® Solutions for Multi-Storey and Underground Car Park



## Parking Structures Today

Parking has become a vital part of today's mobile community, especially in metropolitan areas including airports, all of which are growing at an ever faster rate. This means continuously providing more parking spaces by building new car parks and frequently extending and refurbishing existing ones.

## Where Do You Like to Park?

Successful parking structures are designed to meet the users demands, which vary from feeling safe and welcome to knowing that their cars are in a secure environment. Given the choice, people always park in light & bright car park where they feel their property is being looked after and safe.

## Investigation and Survey of Existing Parking Structures

Multi-storey and underground car parks are both subject to many different stresses. In order to discover the root causes of distress and deterioration, it is therefore essential to carry out a professional Condition Survey and assessment. It is extremely important to balance the cost of the investigative work with the benefits that the information derived will provide, but an appropriate survey and assessment is often key to the process of successfully maintaining and extending the service life of a parking structure.

Modern parking structures are essential and integrated into a 'City' architecture. They are frequently built using 'off-site' construction techniques, with as much off-site construction as possible, to reduce the disruption in these areas.

Therefore precast and prefabricated sections of steel frames and concrete decks and walls are usually combined in composite structures for new car parks. The adequate protection of new build car parks will prevent a cost intensive refurbishment in the future.

## New Build

## Refurbishment

Most of Europe's existing multi-storey car parks have been built since 1940 and they are predominantly of reinforced concrete construction, many also have a history of early deterioration, structural defects and shortcomings in safety. This is due to poor design, poor construction, low standards of maintenance and repair, or a combination of all three. The exposure is more similar to that of bridges used as a result, deterioration, particularly reinforcement corrosion due to the effects of de-icing salts, has had a major impact on their durability. The closure of many areas and even whole car parks for costly repair or replacement has been necessary. These bad experiences have seemed to emphasise the need for improved performance in design, workmanship and the materials selected, to ensure the performance and safety of new and existing car parking structures.

# Multi-Storey and Underground Car Parks

## Ground Bearing Slabs



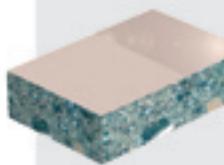
### Requirements

#### Multisilicate Polish for Concrete

- Economic hardener
- Good abrasion resistance
- Good impact resistance
- Colours available



### Design / Build-up



### Sika System / Performance

Multisilicate concrete slab using **Sikament®** or **Sika® ViscoCrete®**  
SOG Technology: Dry shake floor hardener  
**Sikafloor®-13 QuartzTop** applied to the fresh concrete slab before the power float finish, surface cured and sealed with **Sikafloor®-Protect W** or **Sikafloor®-Protect S**



#### Primer: Sikafloor®-155-WW

Base coat: **Sikafloor®-111 EpoGum®**  
Broadcast: Gritty sand  
Seal coat: **Sikafloor®-264**  
Total system thickness: 2 – 4 mm



#### Primer: Sikafloor®-155

Base coat: **Sikafloor®-263 SL**  
Broadcast: Gritty sand  
Seal coat: **Sikafloor®-264**  
A total solid, coloured, protective waterproofing and wearing surface for car park decks.  
Total system thickness: ca. 1 – 3 mm



# Multi-Storey and Underground Car Parks

## Intermediate Decks



### Requirements

#### Broadcast Coloured Right Screen

- Highly abrasion resistant
- Coloured
- Waterproof
- Impact resistance
- Meets German Standard DIN 46

### Design / Build-up



### Sika System / Performance

Primer: **Sikafloor®-101** (optional)  
Base coat: **Sikafloor®-263 SL**  
Broadcast: Gritty sand  
Seal coat: **Sikafloor®-264**

A total solid, coloured, protective waterproofing and wearing surface for car park decks.  
Total system thickness: 1 – 3 mm

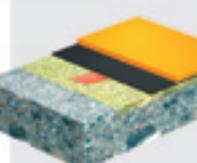


### Requirements

#### Smooth Chemical Resistant Conductive Screen

- High wear and abrasion resistance
- Coloured
- Impact resistance
- Easy cleaning

### Design / Build-up



### Sika System / Performance

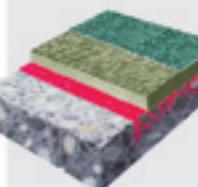
Primer: **Sikafloor®-156/-151**  
Conductive layer: **Sikafloor®-220 W**  
Conductive

Sealing coat: **Sikafloor®-281 AS**  
A two-part, total solid, highly chemical-resistant, electrically-conductive, coloured, epoxy binder for self-smoothing screed systems.  
Total layer thickness: approx. 2 mm



### Broadcast Coloured Flexible Screen

- Static crack-bridging properties up to -10°C
- Coloured
- Waterproof
- Abrasion resistant



Primer: **Sikafloor®-156/-151**  
Base coat: **Sikafloor®-268**  
Broadcast: Gritty sand  
Seal coat: **Sikafloor®-266/-269 M**

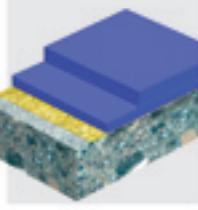
A total solid, coloured, elastomeric, protective waterproofing and wearing surface for car park decks.

Total system thickness: ca. 2 – 3 mm



### Broadcast Fast Drying Screen

- Abrasion resistant
- Coloured
- Waterproof
- Fast cure



Primer: **Sikafloor®-156/-151**  
Base coat: **Sikafloor®-14 Pronto**  
Broadcast: Gritty sand  
Seal coat: **Sikafloor®-58**

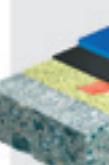
A total solid, coloured, fast curing, protective waterproofing and wearing surface for car park decks.

Total system thickness: ca. 3 – 4 mm



### Smooth Flexible Chemical Resistant Conductive Screen

- High wear and abrasion resistance
- High chemical resistance
- Crack-bridging
- Coloured
- Easy cleaning



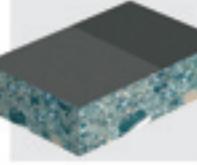
Primer: **Sikafloor®-156/-151**  
Conductive layer: **Sikafloor®-220 W**  
Conductive

Sealing coat: **Sikafloor®-281 AS**  
A two-part, total solid, highly chemical-resistant, electrically-conductive, coloured, epoxy binder for self-smoothing screed systems.  
Total layer thickness: approx. 2 mm



### Heavy Duty Multisilicate Polish for Concrete

- Excellent abrasion resistance
- Excellent impact resistance
- Extreme durability
- Conductive properties



Multisilicate concrete slab using **Sikament®** or **Sika® ViscoCrete®**  
SOG Technology: Dry shake floor hardener  
**Sikafloor®-13 QuartzTop** applied to the fresh concrete slab before the power float finish, surface cured and sealed with **Sikafloor®-Protect W** or **Sikafloor®-Protect S**

