



FLOORING SIKA TECHNOLOGY AND CONCEPTS FOR FLOORING AND COATING

BUILDING TRUST





BENEFIT OF OUR SOLUTION

Sika has continued to strengthen its position as the worldwide market leader in construction chemicals. As part of this expansion, Sika has maintained a strong focus on providing flooring and coating systems for many different applications and extending them worldwide. Today Sika provides a full range of flooring and coating solutions, which meet or exceed all of the latest standards and requirements for both new and refurbishment works.

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SIKA'S FLOORING AND COATING CAPABILITIES FOR A HEALTHIER AND SAFER URBAN SPACE

Sika flooring and coating solutions are based on many technologies including: Epoxy, PUR and PMMA resins; combinations of different binder technologies such as PU & Cement and EP & Cement for solutions covering all types of requirements for industrial and commercial applications. Sika's quality products are designed for the latest trends and requirements and comply with all regulations and standards, e.g. ISO 9001 and 14001, AgBB, CE-MARKING, M1, CSM, etc. Additionally, Sika is the world leader in VOC and ESD/ECF flooring technology, see details on page 30.

Sika flooring and coating solutions are used in various function areas in buildings and facilities, for example for industrial floors with mechanical and chemical resistance, food industry walls with hygienic requirements, floors and walls in clean room environments, and decorative floors and walls in commercial and residential buildings. Their application can be used in almost all project types in an urban space:

- Manufacturing Industry (automotive, electronics, assembly plants, chemicals, etc.)
- Life Science Industry (food and beverage, pharmaceuticals, professional laboratories, etc.)
- Warehouse and Distribution (storage and transportation)
- Car Park, Parking Garages (public, commercial, private)
- Commercial Buildings (hotels, shops, offices, exhibition centers, etc.)
- Institutional Buildings (schools, hospitals, libraries, museums, athletic centers, etc.)
- Interior Finishing (residential and small commercial, distribution business)
- Carriers (marine, trains and rail, trucks and busses)

Sika flooring has more than 50 years experience and is worldwide technology leader in seamless flooring. It is the ideal option for all flooring needs. Its important contributions to the worldwide flooring construction material technology development are:



- Early 80's: the first modular concept for Epoxy systems which is partly still in use today
- EpoCem® - the first hybrid in the market
- Sikafloor® 261 - first self-leveling floor - upright application process
- PU/PUA Hybrid - new technology for carpark coatings
- Sikafloor® Ecoline - global breakthrough with ecological and cost efficient systems
- Sikafloor® Purcem® Gloss - high end industrial floors with best cost / performance ratio
- More innovation to come in the future



Solutions for Storage, Logistics and Sales Areas. Page 12



Solutions for Multi-Storey and Underground Car Parks. Page 44



Solutions for Production and Processing Areas. Page 20



Leveling solution for perfectly even and smooth floor substrate. Page 54



Solutions for Cleanroom Areas. Page 30



Solutions for Commercial, Public and Residential Areas. Page 58



Solutions for Electro Static Discharge (ESD) Protection and Control. Page 36



Solutions for Walls and Ceilings. Page 68



Solutions for Secondary Containment Areas. Page 40



Detailing and Jointing Solutions for Flooring Applications. Page 72

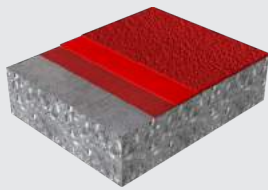
Sika coating is known for its high durability performance when used in critical environments such as:

- Secondary containment areas
- Tank lining
- Water treatment facilities
- Interior walls and ceilings in industrial and commercial facilities
- Steel structures which need corrosion protection
- Structures which need to meet fire protection standards

Sikafloor® SOLUTIONS – A SEAMLESS MATCH FOR YOUR SPECIFIC NEEDS

HERE'S A LOOK AT OUR PRODUCT OFFERINGS:

Sikafloor® MultiDur



Epoxy flooring systems by Sika, a global standard. Your workhorse for heavy-duty performance, these flooring systems offer excellent mechanical strength, wear-resistance and chemical-resistance.

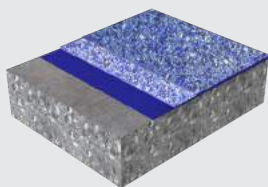
Although seamless floors, by definition, are aesthetically pleasing, color and design are typically not our customers' major driver in choosing these flooring options. Rather, functionality and delivering long-lasting performance are where these floors excel. Choose from smooth, textured, broadcasted (slip-resistant) and mortar finishes to ensure the usability, safety and cleaning regime best fitting your needs.

Within the Sikafloor® MultiDur family you will find special solutions with extremely high chemical resistance; solutions approved for cleanroom usage; and electrostatic discharging, dissipative and electrically conductive flooring. For more basic flooring use and high performance wall coating needs, we offer water-borne coating systems.

Sikafloor® MultiDur solutions are commonly found in:

- Storage, logistics and sales areas
- Production, processing and cleanroom areas (dry and wet)
- Ground-bearing decks, car parks
- Commercial, public and residential areas

Sikafloor® DecoDur



Decorative epoxy flooring systems by Sika. These added design options for heavy-duty flooring are perfect for projects where you want more than a traditional, uni-color design and need the performance of an epoxy floor. Within the Sikafloor®

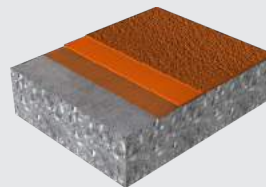
DecoDur family, we offer flooring solutions with different grades of mechanical and chemical resistance, all in a speckled design. Patterns range from a granite effect up to a larger full-flake design and are available in a variety of colors. Typically, Sikafloor® DecoDur floors are installed with a smooth or lightly broadcasted surface texture. At your preference, we can finish the floor with a matte sealer that's designed to withstand common household and light-industrial chemicals or a tougher, more chemical-resistant, glossy finish.

Sikafloor® DecoDur floors are commonly found in:

- Life science facilities
- Laboratories
- High-pedestrian traffic zones in commercial and institutional buildings
- Food courts



Sikafloor® MultiFlex



Polyurethane flooring systems for heavy duty and industrial usage by Sika. Sikafloor® MultiFlex systems are known for their higher elasticity which allows for crack-bridging designs. Further, these floors excel in absorbing base floor movements.

Sikafloor® MultiFlex solutions include designs installed directly on top of elastic waterproofing membranes and are available with or without special surface protection. These floors are installed in smooth, light broadcast and heavy broadcast (high anti-slip) designs.

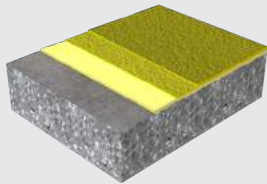
Sikafloor® MultiFlex can commonly be found in:

- Storage, logistic and sales areas (raised floors)
- Production, processing and cleanroom areas (dry and wet)
- Car parks, intermediate and top decks



Sikafloor® SOLUTIONS – A SEAMLESS MATCH FOR YOUR SPECIFIC NEEDS

Sikafloor® PurCem®



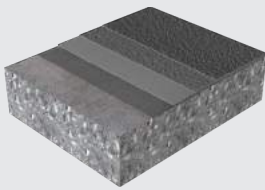
Polyurethane cementitious hybrid flooring systems by Sika. These innovative flooring solutions deliver extreme performance in terms of mechanical and chemical resistance as well as reduced environmental impact. Because they're durable,

low maintenance and available with resurfacing options, our versatile Sikafloor® PurCem® range of systems is gaining global appreciation and can be found in a wide variety of heavy-duty applications. The special core technology of an elastic resinous binder reacting with cementitious fillers is what makes this system family resistant to high temperature variations, even thermo shocks for certain designs. Installation on damp concrete surfaces is possible with Sikafloor® PurCem®.

Typically, Sikafloor® PurCem® floors are installed in a light or heavy anti-slip broadcast or in a full mortar build-up to ensure high performance in wet areas, particularly for food and beverage facilities .



Sikafloor® OneShot



The fastest way to finish your car park and bridge deck, by Sika. This unique, innovative solution allows two steps in one shot. Our super-fast, spray-applied polyurea coating assures high mechanical strength.

And, by spraying the fillers needed to provide the surface's anti-slip texture at the same time, a significant amount of labor is saved, making it possible to prime, finish and seal in one day. Finishing options are available in both polyaspartic and polyurethane technology.

Sikafloor® OneShot solutions are commonly found in:

- Car parks
- Bridge decks

Sikafloor® HardTop



Concrete surface hardening, curing and sealing and heavy-duty industrial screeds, by Sika. Our dry shake Sikafloor® powders are broadcasted directly onto the fresh concrete – before the powerfloat finish is applied – to create an

extremely hard-wearing, monolithic concrete floor. Additional performance can be achieved through various liquid-applied surface hardeners, curing compounds and surface sealers.

Sikafloor® HardTop solutions are commonly found in:

- Storage, logistics and sales areas
- Non-critical, heavy-duty industrial areas such as dry processing facilities
- Car parks

Sikafloor® Level



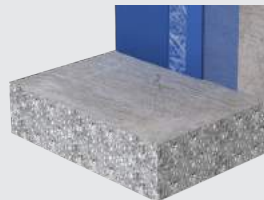
Subfloor preparation and leveling solutions, by Sika. To assure compatibility of base floor preparation materials with final, high-end synthetic finishes, Sika offers a full range of leveling underlayments. Professional

flooring contractors and general construction craftsmen recognize Sika leveling compounds for excellent performance and workability. Each underlayment has a matching range of primers to ensure solid performance on different types of substrates, both in new and refurbishment projects. We offer solutions for

absorbing cementitious and calcium-based slabs, and solutions to go over existing ceramic tile or synthetic flooring. When time is of the essence, we can help to reduce your project lead time with the Sika® Level Rapid solution. This system's fast-drying properties typically enable underlayment and overlaying on the same day.

Sikafloor® Level systems can be used in combination with our own Sika ComfortFloor®, Sikafloor® MultiDur, Sikafloor® DecoDur and Sikafloor® MultiFlex flooring solutions and with a wide variety of common commercial floors. Within our SikaBond® family, you'll find adhesives for synthetic, textile and wood flooring systems.

Sikagard® WallCoat



A wall coat that blends specific, engineered performance requirements with decorative designs, by Sika. When you need more than just paint, our family of Sikagard® WallCoat performance and decorative wall coating systems

delivers unique benefits for demanding surface finishing. Chemical resistance. Heavy-duty mechanical resistance. The ability to withstand chemicals used in cleaning regimes. In-film preservatives providing finishes that do not promote the development of fungi, bacteria and other micro organisms. Sikagard® WallCoat solutions do it all. Easily.

Sikagard® WallCoat solutions are commonly found in:

- Cleanroom certified areas



- Food and beverage processing facilities
- Hospitals and laboratories
- Concrete surface protection
- Tunnels
- Commercial, institutional and residential interior finishing

Sikafloor® SOLUTIONS FOR STORAGE, LOGISTICS AND SALES AREAS

LARGE QUANTITIES OF GOODS have to be produced, distributed and delivered quickly and on time for an efficient economy to function. In the manufacturing industries where these goods are handled and stored, the warehouses, their loading bays etc., all need to have their floors designed and installed to suit the specific conditions of each area's operation.

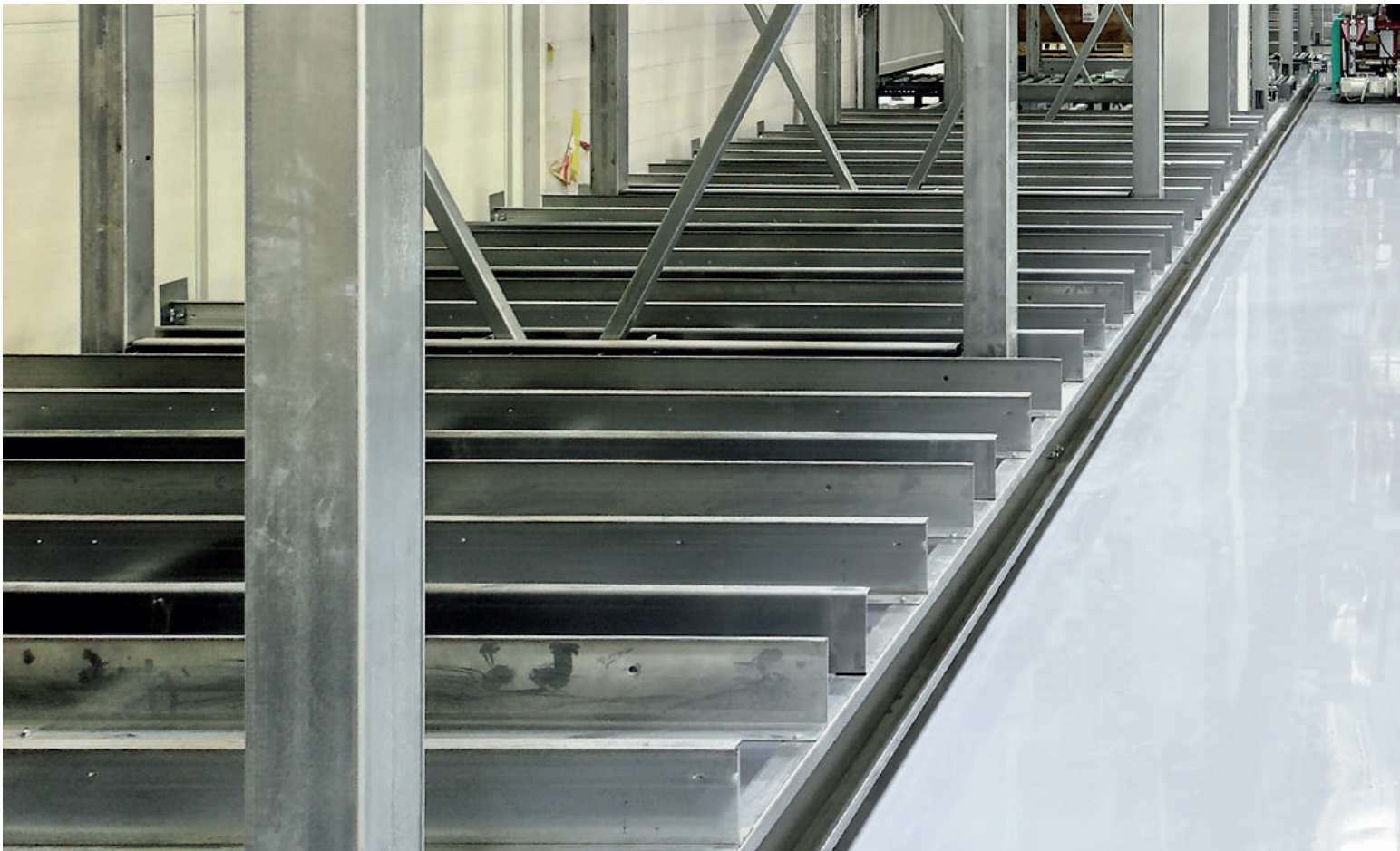
It is always essential to ensure that the stresses imposed are all able to be safely accommodated by the flooring system. Therefore, fully understanding each area's operations and then defining all of the performance requirements for the floor is the most important. This includes the required mechanical impact, abrasion and chemical resistance, thermal exposure plus ease of cleaning, and dust prevention, etc.

NEW BUILDINGS

Concrete slabs produced from mix designs using admixtures such as Sikament® or Sika® ViscoCrete® SCC technology form a sound foundation and allow accurate levels with the necessary

falls to be achieved. Sikafloor® “dry shake” solutions as the name suggests, are applied as dry powders directly onto the surface of the freshly laid concrete, where they are power float finished, and then harden monolithically with the base concrete. This creates an integrated and extremely hardwearing floor. Concrete curing agents, plus surface hardening and sealing compounds complete the Sikafloor® range.

Additionally, Sika® EpoCem® technology can be used on relatively new “green” or existing damp concrete, where it acts as a temporary moisture barrier to reduce waiting times for the application of vapour-tight floor systems.



REFURBISHMENT

Cementitious, self-smoothing Sikafloor® pumped screeds and Sikafloor® Level are used to provide a uniform and level surface for the application of floor finishes. The vapour permeable and rapid drying screeds provide very economic solutions.

Sika® EpoCem® Technology is again frequently used in refurbishment projects when the existing floors have rising or high moisture contents but need to be over-coated quickly.

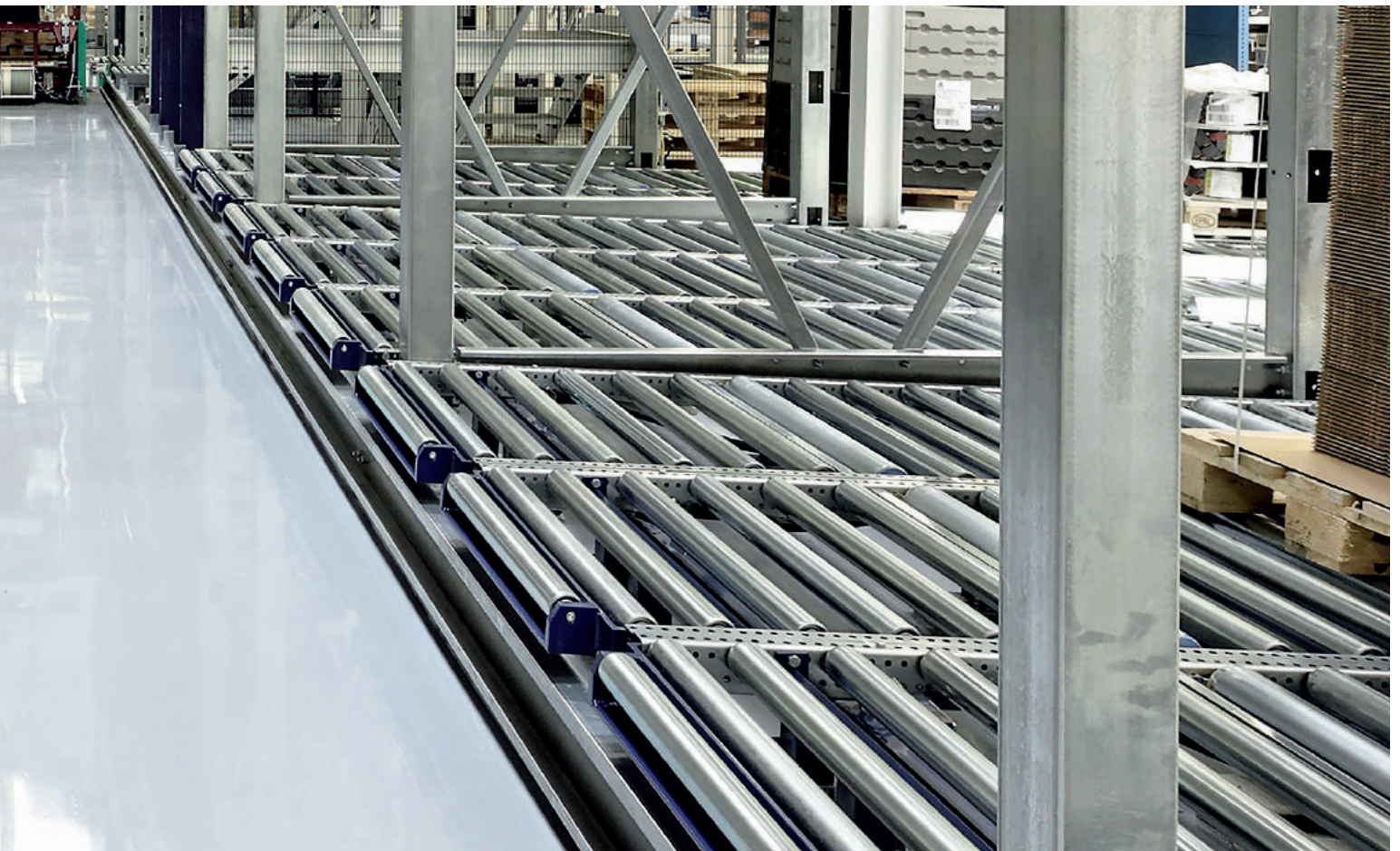
RACKING AREAS

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

MANY ONGOING DAILY ACTIVITIES INCLUDING: FORKLIFT OR PALLET TRUCK TRAFFIC CARRYING HEAVY LOADS, PALLETS AND BOXES BEING DRAGGED ACROSS THE FLOOR, STRICT TEMPERATURE REQUIREMENTS FOR CERTAIN GOODS, ETC.

COLD STORAGE AREAS

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



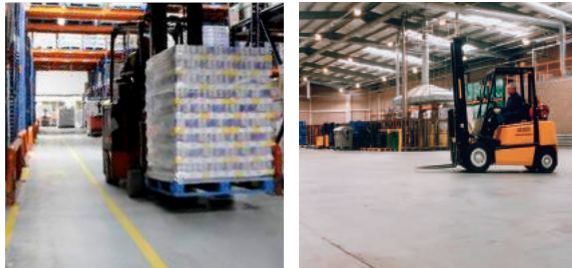
STORAGE, LOGISTICS AND SALES AREAS







SYSTEM FAMILY	Sikafloor® HardTop	Sikafloor® HardTop	Sikafloor® Level
DESCRIPTION	Tough monolithic finish for concrete floors	Heavy duty monolithic finish for concrete floors	Cementitious self smoothing industrial screed underlayment
NOMINAL THICKNESS/ LAYERS	2.5 - 3 mm 1 - 2	2.5 - 3 mm 1 - 2	4 - 30 mm 2+
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Tough and durable ■ Very good abrasion resistance ■ Very good impact resistance ■ Color options 	<ul style="list-style-type: none"> ■ Excellent abrasion resistance ■ Excellent impact resistance ■ Extremely high durable ■ Non corroding metallic finish ■ Color options 	<ul style="list-style-type: none"> ■ Smooth and level surface ■ Rapid drying ■ Low to medium thickness
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikament® or Sika® ViscoCrete® slab ■ Sikafloor®-2 SynTop 	<ul style="list-style-type: none"> ■ Sikament® or Sika® ViscoCrete® slab ■ Sikafloor®-1 MetalTop 	<ul style="list-style-type: none"> ■ Sikafloor®EpoCem module or SikaLevel®-01 Primer ■ Sikafloor® Level®-30 ■ Sikafloor® resin system to suit



STORAGE, LOGISTICS AND SALES AREAS



SYSTEM FAMILY	Sikafloor® HardTop	Sikafloor® HardTop
		
DESCRIPTION	Surface hardener for concrete floors	Water based curing and sealing compound for concrete floors
NOMINAL THICKNESS / LAYERS	< 1 mm 1 - 2	< 1 mm 1 - 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Economic surface hardening ■ Good abrasion resistance ■ Prevent surface dusting 	<ul style="list-style-type: none"> ■ Surface sealing ■ Prevent surface dusting ■ Very low VOC
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor® CureHard 24 	<ul style="list-style-type: none"> ■ Sika® CureCrete
		



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消火栓



大型 119



灭火器

灭火器

STORAGE, LOGISTICS AND SALES AREAS



SYSTEM	Sikafloor® MultiDur ET-14	Sikafloor® MultiDur ES-24	Sikafloor® MultiDur EB-14 ECC	Sikafloor® MultiDur EB-24
DESCRIPTION	Textured unicolor epoxy roller coat	Smooth unicolor epoxy floor covering	Textured unicolor epoxy floor covering thin layer over epoxy hybrid screed	Textured unicolor epoxy floor covering
NOMINAL THICKNESS / LAYERS	< 1 mm 2 - 3	2 - 3 mm 2	1.0-1.5 mm 3	2 - 4 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy cleaning ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good impact resistance ■ Good chemical resistance ■ Medium thermal shock resistance ■ Easy cleaning ■ Color options 	<ul style="list-style-type: none"> ■ Substrate moisture barrier ■ High wear resistance ■ Good mechanical resistance ■ Medium thermal shock resistance ■ Slip resistant ■ Color options 	<ul style="list-style-type: none"> ■ Cold storage (> -10°C) ■ High wear resistance ■ Good mechanical resistance ■ Medium thermal shock resistance ■ Slip resistant ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264 ■ Sikafloor®-264T 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL 	<ul style="list-style-type: none"> ■ Sikafloor®-160 ■ Sikafloor®-81 EpoCem® ■ Quartz sand (0.4 - 0.7 mm) ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL ■ Quartz sand (0.4 - 0.7 mm) ■ Sikafloor®-264



Sikafloor® SOLUTIONS FOR PRODUCTION AND PROCESSING AREAS

THE BIGGEST CHALLENGES FOR flooring systems in manufacturing facilities are generally in the production areas. These floors not only have to withstand severe exposure, including mechanical, chemical and thermal stresses, but also need 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 technologies, which are developed in our laboratories from more than 50 years of practical experience. For special requirements, different binder and filler systems are combined to achieve specific properties, e.g. polyurethane and cement in the Sikafloor® PurCem® range for high temperature and chemical resistance in wet environments.

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 any chemical exposure. In the production areas of the food and beverage industries in particular, a clean floor is obviously of crucial importance to facilitate the necessary hygienic working environment.

'Dry' processing areas also often require a balance or compromise to be made between ease of cleaning and slip resistance to meet the requirements for efficiency and hygiene, plus health and safety.



**AREAS WITH EXTREME EXPOSURE
(COMBINATIONS OF WET CONDITIONS, CHEMICALS,
TEMPERATURES AND ABRASION)**

Sika has a complete range of flooring solutions for industrial facilities that are required to be durable under extreme exposures and conditions of use. These conditions can vary from severe chemical attack with thermal shock exposure in the food industry, to high point loading and abrasion in the automotive industry.

The Sikafloor® PurCem® range will perform under the most demanding service environments and can meet all of these and many other different individual exposure requirements with design flexibility. This includes a full range of non-slip / anti-skid profiles.

MINIMUM DOWNTIME FOR PRODUCTION

Each day or even each hour of downtime in production can be very expensive in both new construction and in refurbishment projects. It is always therefore essential to finish all of the

**USING THE FAST CURING
Sikafloor® PurCem® SYSTEMS
FOR FLOOR MAINTENANCE AND
REFURBISHMENT PROJECTS
CAN REDUCE DOWN TIME TO
MINIMUM.**

flooring work within the shortest possible time, but still ensuring the required performance and durability. Using the fast curing Sikafloor® PurCem® systems for floor maintenance and refurbishment projects can reduce down time to a minimum. Sikafloor® systems can also be designed to withstand all of the other requirements and conditions with various degrees of slip resistance and surfaces that are easy to clean.



PRODUCTION AND PROCESSING AREAS

Dry Areas



SYSTEM	Sikafloor® MultiDur ES-14	Sikafloor® MultiDur ET-14	Sikafloor® MultiDur ES-24	Sikafloor® MultiDur ES-23
DESCRIPTION	Unicolor epoxy roller coat	Textured unicolor epoxy roller coat	Smooth unicolor epoxy floor covering	Smooth or textured unicolor epoxy floor covering
NOMINAL THICKNESS / LAYERS	< 1 mm 2	< 1 mm 2 - 3	2 - 3 mm 2	2 - 3 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Easy to clean ■ Color options 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy to clean ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good impact resistance ■ Good chemical resistance ■ Easy to clean ■ Color options 	<ul style="list-style-type: none"> ■ High wear resistance ■ High chemical resistance ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264 ■ Sikafloor®-264T 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263SL /-264 ■ Sikafloor®-264T ■ Sikafloor® 33 PurCem UV (Optional)

* Note: 1) The 3D graphics in this brochure are not to scale and they are only intended to illustrate the system build-ups.
 2) The symbols such as represent typical project related performance requirements and these are all listed and discussed on pages 50 to 52 of this brochure.

PRODUCTION AND PROCESSING AREAS

Wet Areas, Light to Medium Heavy Duty



SYSTEM	Sikafloor® MultiDur EB-14	Sikafloor® MultiDur EB-24	Sikafloor® PurCem® HB-22
DESCRIPTION	Slip resistant, textured unicolor epoxy roller coat	Slip resistant broadcast unicolor epoxy floor covering	Medium- to heavy-duty, broadcasted, medium anti-slip polyurethane cementitious hybrid screed
NOMINAL THICKNESS / LAYERS	1.0 - 1.5mm 3 - 4	3 - 4 mm 3	5 - 6 mm 2 - 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy cleaning ■ Color options 	<ul style="list-style-type: none"> ■ Cold storage (> -10°C) ■ High wear resistance ■ Good mechanical resistance ■ Slip resistant ■ Color options 	<ul style="list-style-type: none"> ■ Cycling temperature resistance ■ Medium to heavy duty screed, high wear resistance ■ High chemical resistance ■ Thermal shock resistance ■ Hygienic ■ Slip resistant ■ Color options ■ Low VOC, low odor
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264 ■ Quartz sand (0.4 - 0.7 mm) ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL ■ Quartz sand (0.4 - 0.7 mm) ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-21 PurCem® ■ Quartz sand (0.7 - 1.2 mm) or Bauxite ■ Sikafloor®-31 PurCem® ■ Sikafloor®-33 PurCem UV (optional)

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PRODUCTION AND PROCESSING AREAS

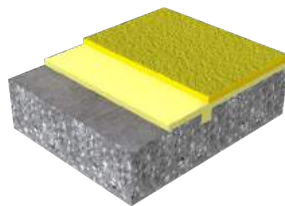
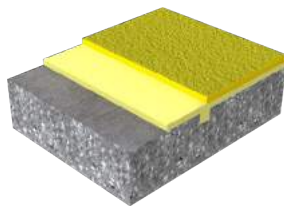
Extreme Exposure



SYSTEM

Sikafloor® PurCem® HB-22

Sikafloor® PurCem® HB-22



DESCRIPTION

Medium- to heavy-duty, broadcasted, medium anti-slip polyurethane cementitious hybrid screed

Heavy-duty, broadcasted, medium anti-slip polyurethane cementitious hybrid screed

NOMINAL THICKNESS / LAYERS

5 – 6 mm

9 mm

2 – 3

2 – 3

CHARACTERISTICS

- Heavy duty screed, high wear resistance
- High chemical resistance
- Thermal shock resistance
- Hygienic
- Slip resistant
- Color options
- Low VOC, low odor


- Temperature resistant (-40°C to +120°C)
- Heavy duty screed, high wear resistance
- High chemical resistance
- Thermal shock resistance
- Hygienic
- Slip resistant
- Color options
- Low VOC, low odor

SYSTEM COMPONENTS

- Sikafloor®-21 PurCem®
- Quartz sand (0.7 – 1.2 mm)
- Sikafloor®-31 PurCem®
- Sikafloor® 33 PurCem UV (Optional)

- Sikafloor®-21 PurCem®
- Quartz sand (0.7 – 1.2 mm) or Bauxite
- Sikafloor®-31 PurCem®
- Sikafloor® 33 PurCem UV (Optional)



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Sikafloor[®], Sikaflex[®] and Sikagard[®] SOLUTIONS FOR CLEANROOM AREAS

IN RECENT YEARS SIKA has developed a new generation of advanced flooring, wall coating and joint sealant solutions for cleanroom environments. Manufacturing under cleanroom conditions is becoming increasingly more widespread and demanding, with particular regard to VOC / AMC emissions (Volatile Organic Compounds / Airborne Molecular Contaminants), particle emissions and biological contamination.

The number of products which have to be produced and processed under cleanroom conditions is constantly growing, from electronics and automotive components 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.

Many Sikafloor[®], Sikagard[®] and Sikaflex[®] systems are the 'State of the Art' in cleanroom solutions, specifically developed and certified for cleanroom environments ranging from those in the Semi-conductor and Electronics industries to those in the Life Science industries. Therefore we are the ideal partner to help you select the best solutions for your individual processes and cleanroom requirements and with the unique CSM product qualification.

CERTIFICATION

Most of the Sikafloor[®], Sikagard[®] and Sikaflex[®] systems in this brochure are tested and certified for their use in a cleanroom environment.

Furthermore, in depth test reports and proof statements are available for each certified product or system, which contain all of the relevant information regarding the testing parameters and standards. Please ask your local Sika representative for specific details and you can also refer to the public database of the Fraunhofer IPA Institute where all of the tested and certified Sika solutions are listed: www.tested-device.com



CLEANROOM SUITABLE MATERIALS CSM

CSM – Cleanroom Suitable Materials are the world's first standardised product qualifications according to the ISO 14644 and GMP standards for all cleanroom and life science markets.

The Fraunhofer IPA founded the Industrial Alliance CSM and organises their main work topics and coordinates the required research, including the



recording and analysis of all relevant 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 the material selection criteria for cleanroom applications. Sika was a founding member of this alliance and plays an active role in the development of these standards and regulations.

CSM – CERTIFIED CLEANROOM SUITABLE MATERIALS FOR SPECIFIC INDUSTRIES

LIFE SCIENCE INDUSTRIES

The following industries are particularly aware of particle emissions and biological resistance according to the global GMP standard.

- Food
- Biotechnology
- Medical devices
- Pharmaceuticals



3. * Chemical resistance depends very much on the process and the cleaning regime, which needs to be checked individually. Please refer to the Sikafloor® Chemical Resistance Chart available from your local Sika Organisation.

Requirements

1. Low particle emissions
2. Biological resistance
3. Chemical resistance*
4. Conductivity

Sika Solutions:

One label contains all the information for clients or specifiers working in the cleanroom industries!

ELECTRONICS AND RELATED INDUSTRIES

The following industries are particularly aware of particle and TVOC emissions according to the global ISO 14644 standard.

- Solar panels
- Hard discs
- Flat panel screens
- Semiconductors
- Optical equipment
- Microsystems
- Automotive
- Aerospace



3. * Chemical resistance depends very much on the process and the cleaning regime, which needs to be checked individually. Please refer to the Sikafloor® Chemical Resistance Chart available from your local Sika Organisation.

Requirements

1. Low particle emissions
2. Low VOC emissions
3. Chemical resistance*
4. Conductivity

Sika Solutions:


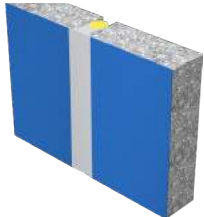
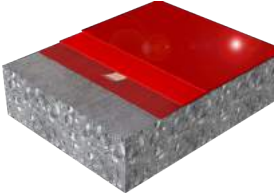



One label contains all the information for clients or specifiers working in the cleanroom industries!



CLEANROOM AREAS

Examples for the Electronic and Related Industries



SYSTEM	Sikagard® Wallcoat WS-11	Sikaflex® Sealant	Sikafloor® MultiDur ES-28 ECF/EQ
			
DESCRIPTION	Epoxy based high performance wall coating solution	1-Part polyurethane floor joint sealing solution	Smooth, Ultra-low VOC, Electric conductive floor covering
NOMINAL THICKNESS / LAYERS	< 0.5 mm 2		~ 2 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ ISO 14644 Compliant ■ Good chemical resistance ■ Smooth surface ■ Low VOC ■ Biological resistant ■ Color options 	<ul style="list-style-type: none"> ■ ISO 14644 Compliant ■ Good chemical resistance ■ Excellent adhesion ■ Low VOC 	<ul style="list-style-type: none"> ■ ISO 14644 Compliant ■ Good chemical resistance ■ Electrostatically conductive ■ Low particle emissions ■ Smooth surface ■ Ultra low VOC ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikagard® Wallcoat N ■ Sikagard® Wallcoat N 	<ul style="list-style-type: none"> ■ Sikaflex® Pro 3 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -701 ■ Sika Earthing Kit ■ Sikafloor®-220 W Conductive ■ Sikafloor®-269 ECF CR
			

CLEANROOM AREAS

Examples for Life Science Industries

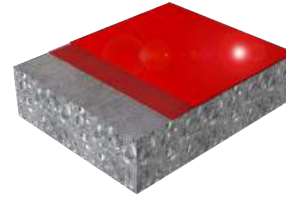
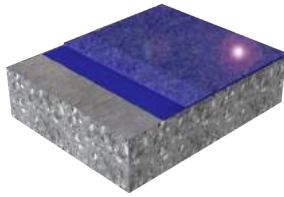


SYSTEM

Sikafloor® Multiflex PS-32/UV

Sikafloor® MultiDur ES-23

Sikafloor® MultiDur ES-24



DESCRIPTION

Smooth elastic seamless floor

Smooth or textured unicolor epoxy floor covering

Smooth low VOC epoxy floor covering

NOMINAL THICKNESS / LAYERS

2

2 - 3 mm

2 - 3 mm

3

3

2

CHARACTERISTICS

- Low particle emissions
- Designer aesthetics
- Medium slip resistance optional
- Low VOC
- Color options
- Elastic - crack bridging

- High wear resistance
- High chemical resistance
- Color options

- Low particle emissions
- Smooth surface
- Good chemical resistance
- Medium slip resistance
- Low odor
- Color options

SYSTEM COMPONENTS

- Sikafloor® 160-161
- Sikafloor® 324
- Sikafloor® 304-305W

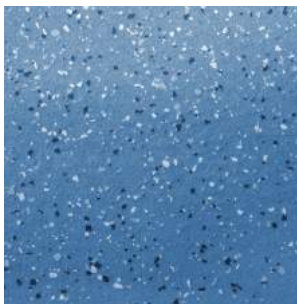
- Sikafloor®-161 or -160
- Sikafloor®-263SL /-264
- Sikafloor®-264T

- Sikafloor®-160
- Sikafloor®-263SL



Sikafloor® DECORATIVE SOLUTIONS

THE DECORATIVE FLOORING SOLUTIONS from Sika allow the creation of an almost unlimited combination of functional and aesthetic requirements. The results of this flexibility in design are rooms so unique and distinctive that people really like and appreciate living and working there.



BROADCAST FLAKE



FULL FLAKE



GRANITE



COMPACT / QUARTZ

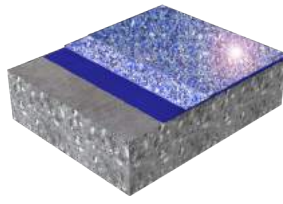
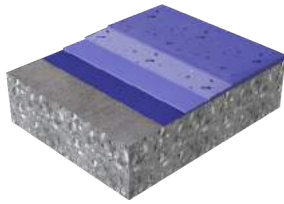




SYSTEM

Sikafloor® DecoDur ES-26 Flake

Sikafloor® DecoDur EB-26 Quartz



DESCRIPTION

Smooth low VOC colored full flaked epoxy floor covering or fine textured

Slip resistant low VOC color quartz broadcasted epoxy floor covering

NOMINAL THICKNESS / LAYERS

2 - 3 mm

2 - 3 mm

4

3

CHARACTERISTICS

- Food contact compliant
- Low particle emissions
- Colored flake effects
- Medium slip resistance optional
- Low VOC
- Color options

- Food contact compliant
- Low particle emissions
- Colored sand effects
- Good mechanical resistance
- Slip resistant
- Low VOC
- Color options

SYSTEM COMPONENTS

- Sikafloor®-161 or -160
- Sikafloor®-264
- Sika® PVA ColorFlakes (3 mm)
- Sikafloor®-169

- Sikafloor®-161 or -160
- Sikafloor®-263 SL or -264
- Colored quartz sand (0.3 - 0.8 or 0.7 - 1.2 mm)
- Sikafloor®-169



Sikafloor® SOLUTIONS FOR ELECTRO STATIC DISCHARGE (ESD) PROTECTION AND CONTROL

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, inadvertent contact and damage can occur. Sikafloor® ESD (Electro Static Discharge), DIF (Dissipative Flooring) 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.



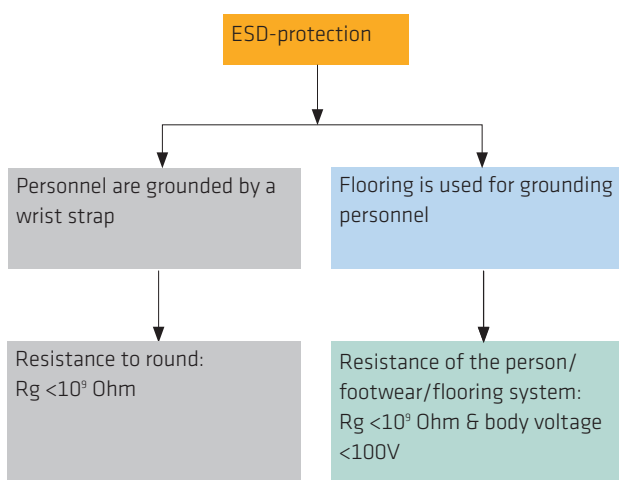
SPECIFICATION

None of the specific conductivity or electrical resistance values mentioned in any of the International or National Standards in the table shown here are mandatory.

The values can be adapted to meet local requirements by the responsible authorities. Before applying an ESD or dissipative/conductive flooring system, Sika always recommends a detailed assessment of at least the following parameters, then the most appropriate values can be determined and agreed by all of the parties involved:

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

RESISTANCE RANGES ACCORDING TO IEC 61340-5-1 OR ANSI/ESD S 20.20



WHAT IS AN ESD EVENT AND WHAT DOES IT DO?

An ESD event is an Electrostatic Discharge. This 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 fires or explosions, create heat, light and even sounds. It is this potentially unseen, unfelt or unheard 'micro lightning' spark that can occur without warning, which must be prevented or controlled.

US-STANDARDS:

Systems:	ANSI/ESD S 20.20 (ANSI/ESD STM97.1) System Test: < 35 M Ω	ANSI/ESD S 20.20 (ANSI/ESD STM97.2) Walking Test (BVG) < 100 Volt	ANSI/ESD S 20.20 (ANSI/ESD 57.1) Resistance to Ground $R_c < 10^9 \Omega$	ASTM F 150 (ECF) Surface to Ground Test: $>2.5 \times 10^4 - 1 \times 10^9 \Omega$	ASTM F 150 (ECF) Surface to Surface Test: $>2.5 \times 10^4 - <1 \times 10^9 \Omega$	ASTM F 150 (DIF) Surface to Ground Test: $>1 \times 10^4 - <1 \times 10^9 \Omega$	ASTM F 150 (DIF) Surface to Surface Test: $>1 \times 10^4 - <1 \times 10^9 \Omega$
Smooth ESD roller coating (Epoxy)							
Sikafloor®-200 ESD	▲	▲	▲	-	-	▲	▲
Sikafloor®-200C ESD	▲	▲	▲	▲	▲	-	-
Roller coating for high chemical resistance (Epoxy Novolac)							
Sikafloor®-700 ESD	▲	▲	▲			▲	▲
Sikafloor®-700C ESD	▲	▲	▲	▲	▲	-	-
Smooth ESD roller coating (Polyurethane)							
Sikafloor®-340 ESD	▲	▲	▲	-	-	▲	▲

▲ Meets the Standard - Does not meet the Standard

DEFINITION: CONDUCTIVE/DISSIPATIVE FLOORING MATERIAL (ECF/DIF)

- Conductivity refers to the ability of a material to conduct a charge to ground. In non-absolute technical terms, this means its ability to conduct an electrical current.
- Conductive floors and electrostatic dissipative floors are classified according to their electrical resistance to ground.

Conductive Flooring Material (ECF)

(e.g. according to ASTM F150) A floor material that has a resistance to ground between 2.5×10^4 and 1.0×10^6 ohms

Dissipative Flooring Material (DIF)

(e.g. according to ASTM F150) A floor material that has a resistance to ground between 1.0×10^6 to 1.0×10^9 ohms

EUROPEAN-STANDARDS:

Systems:	DIN EN 1081 Resistance to Ground RG < 10 ⁹ Ω	IEC 61340-5-1 (IEC 61340-4-5) System Test: < 35 M Ω	IEC 61340-5-1 (IEC 61340-4-5) Walking Test (BVG) < 100 Volt	IEC 61340-5-1 (IEC 61340-4-1) Resistance to Ground RG < 10 ⁹ Ω	ATEX 137 / TRBS 2153 European Standard Resistance to Ground RG < 10 ⁹ Ω	DIN VDE 0100-410 (IEC 60364-4-41) Isolation Resistance > 50 kΩ	
Smooth and textured, hygienic ECF floors							
Sikafloor®-262 AS N	▲	–	–	▲	▲	Any insulating self-smoothing layers e.g. Sikafloor®-263 SL	
Sikafloor®-262 AS Thixo	▲	–	–	▲	▲		
High chemical resistance							
Sikafloor®-381 ECF	▲	–	–	▲	▲		
Sikafloor®-390 ECF	▲	–	–	▲	▲		
Approved for clean rooms							
Sikafloor®-266 ECF CR	▲	–	–	▲	▲		
Sikafloor®-269 ECF CR	▲	–	–	▲	▲		
ESD systems with very low body voltage generation							
Sikafloor®-235 ESD	▲	▲	▲	▲	▲		
Sikafloor®-262 AS N + Sikafloor®-230 ESD TopCoat	▲	▲	▲	▲	▲		
Sikafloor®-327 Sikafloor®-305 W ESD	▲	▲	▲	▲	▲	▲	

STANDARDS USED IN ASIA:

Systems:	SJ/T 11294-2003 (ECF) Resistance to Ground R _c > 5 x 10 ⁴ – < 1 x 10 ⁶ Ω	SJ/T 11294-2003 (DIF) Resistance to Ground R _c > 1 x 10 ⁶ – < 1 x 10 ⁹ Ω	IEC 61340-5-1 (IEC 61340-4-5) System Test: < 35 M Ω	IEC 61340-5-1 (IEC 61340-4-5) Walking Test (BVG) < 100 Volt	IEC 61340-5-1 (IEC 61340-4-1) Resistance to Ground R _c < 10 ⁹ Ω
Smooth, hygienic floors					
Sikafloor®-262 AS N	▲	–	–	–	▲
Sikafloor®-239 EDF	–	▲	–	▲	▲
High chemical resistance					
Sikafloor®-390 AS	▲	–	–	–	▲
Sikafloor®-381 AS	▲	–	–	–	▲
ESD system with very low body voltage generation					
Sikafloor®-235 ESD	–	–	▲	▲	▲
Sikafloor®-262 AS N + Sikafloor®-230 ESD TopCoat	–	–	▲	▲	▲

▲ Meets the Standard – Does not meet the Standard

Sikafloor® SOLUTIONS FOR ELECTRO STATIC DISCHARGE (ESD) PROTECTION AND CONTROL



SYSTEM	Sikafloor® Multiflex PS 32 ESD	Sikafloor® MultiDur ES-24 ECF	Sikafloor® MultiDur ES-25 ESD	Sikafloor® MultiDur ES-44 ESD
DESCRIPTION	Textured unicolor conductive epoxy roller coat	Smooth unicolor conductive epoxy floor covering	Smooth unicolor high performance ESD epoxy floor covering	Medium duty, smooth, self-leveling, electric conductive polyurethane cementitious hybrid screed
NOMINAL THICKNESS / LAYERS	1.5 - 2 mm 3	~ 2 mm 3	~ 2 mm 3	2 mm 2
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy to clean ■ Conductive ■ Color options 	<ul style="list-style-type: none"> ■ High wear and abrasion resistance ■ Good chemical resistance ■ Color options ■ Easy to clean ■ Conductive 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Color options ■ Easy to clean ■ Conductive 	<ul style="list-style-type: none"> ■ Conductive ■ Heavy duty screed, high wear resistance ■ High chemical resistance ■ Medium thermal shock resistance ■ Hygienic ■ Slip resistant ■ Color options ■ Low VOC, low odor
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor® 160-161 ■ Sikafloor® 324 ■ Sikafloor® 305 W ESD 	<ul style="list-style-type: none"> ■ Sikafloor® 160 - 161 ■ Sikafloor®-220 W Conductive ■ Sikafloor®-262 AS N 	<ul style="list-style-type: none"> ■ Sikafloor® 160 - 161 ■ Sikafloor®-220 W Conductive ■ Sikafloor®-235 ESD 	<ul style="list-style-type: none"> ■ Sikafloor® 160-161 ■ Sikafloor® 263/264 ■ Sikafloor® 305 W - ESD



Sikafloor® and SikaCor® SOLUTIONS FOR SECONDARY CONTAINMENT AREAS

SECONDARY CONTAINMENT AREAS ARE bunded areas designed to contain any spillages of oils, chemicals or pollutants from their primary containment tanks or vessels. This is in order to protect the soil and the groundwater from pollution, which is an increasing demand following the legislation of governments and other authorities to protect the environment.

There are two main requirements for protective coating systems in these secondary containment areas: Firstly to waterproof the structures to protect the soil and groundwater. Secondly, as many of these chemical materials are also aggressive to the concrete and reinforcement steel that the structures are built from, the secondary containment structures themselves must also be protected, in order to prevent any damage or even loss of structural integrity.

Based on our extensive experience of handling many different kinds of chemicals, i.e. acids, alkalis, oils and solvents, Sika has led the development of many specialist epoxy and other resin based coating systems to waterproof and protect secondary containment structures, so that they can fulfil their function. As required and in accordance with some national and International standards, many of these Sika systems also have defined crack-bridging properties and their chemical resistance has been fully tested against the various different chemicals that they are to be used to resist and keep contained.





SYSTEM	Sikagard®-63 N	Sikagard®-62
DESCRIPTION	Chemical resistant epoxy lining	High wear resistant epoxy coating/lining excellent chemical resistance
NOMINAL THICKNESS / LAYERS	1.0 mm 3 - 4	1.0 mm 3 - 4
CHARACTERISTICS	<ul style="list-style-type: none"> ■ High chemical resistance ■ Good wear resistance ■ Color options ■ Smooth surface 	<ul style="list-style-type: none"> ■ Excellent chemical resistance ■ Glass fibre reinforced (optional) ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 ■ Sikagard®-63 N 	<ul style="list-style-type: none"> ■ Sikafloor®-160 or 161 ■ Sikagard® 62 1x reinforcing (optional)



Notice: to achieve tight and proof surfaces, it is important to have the right detailing solution, which is supported by Sika's technical experts to give full range support.

Sikafloor® SOLUTIONS FOR MULTI-STOREY AND UNDERGROUND CAR PARKS

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 continually 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 include feeling safe and welcome, plus knowing that their cars are in a secure environment. Given the choice, people always park in a brightly lit car park, where they feel their property is best 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 obviously important to balance the cost of the investigative work with the benefits that the derived information will provide; but an appropriate survey and assessment is often key to successfully maintaining and extending the service life of an existing parking structure.

NEW BUILD

Modern parking structures are essential and integrated into a cities' architecture. They are frequently built using 'fast-track' 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 with reinforced concrete decks and stairways are usually combined in composite structures for new car parks. The adequate protection of new build car parks will prevent cost intensive refurbishment being required in the future.



REFURBISHMENT

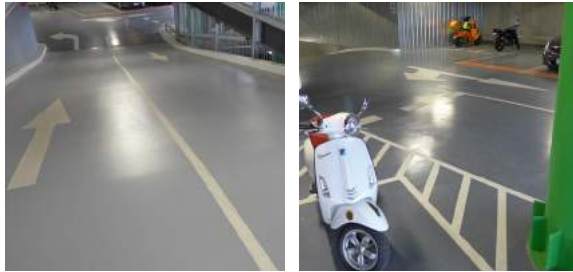
Most of Europe's existing multi-storey car parks have been built since 1950 and they are predominantly of reinforced concrete construction, many of which have a history of early deterioration, structural defects and shortcomings in safety. This is due to poor design, poor construction, low standards of maintenance and repair, or a combination of all three. Their exposure is more similar to that of bridges than the building codes they were designed to, and as a result they have deteriorated quickly, particularly due to reinforcement corrosion following the ingress of water and de-icing salts. The closure of many areas and even whole car parks for costly repair or replacement has been necessary. These bad experiences have served to emphasise the need for improved performance in car park design, construction and the materials used, in order to ensure the increased durability and safety of both new and existing structures.

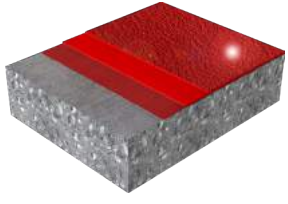
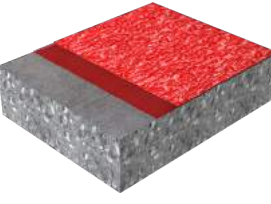


THE ADEQUATE PROTECTION OF
NEW BUILD CAR PARKS WILL
PREVENT COST INTENSIVE
REFURBISHMENT BEING
REQUIRED IN THE FUTURE.



MULTI-STOREY AND UNDERGROUND CAR PARKS

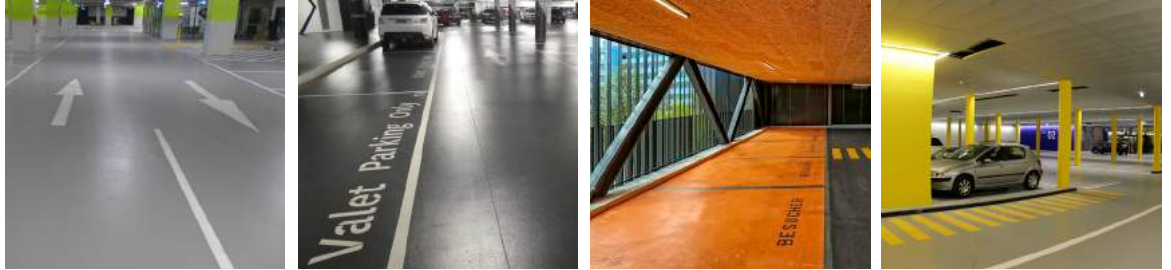
Systems for Ground Bearing Slabs



SYSTEM	Sikafloor® MultiDur EB-24	Sikafloor® MultiDur ET-14
		
DESCRIPTION	Broadcast unicolor epoxy floor for ramps - turning area	Textured unicolor epoxy roller coat
NOMINAL THICKNESS / LAYERS	2 - 4 mm 3	< 1 mm 2 - 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ High wear resistance ■ Good mechanical resistance ■ Slip resistant ■ Color options 	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy to clean ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL ■ Quartz sand or silica carbide (0.4 - 0.7 mm) ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264T
		

MULTI-STOREY AND UNDERGROUND CAR PARKS

Systems for Intermediate Decks

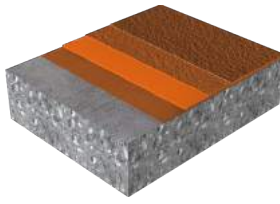
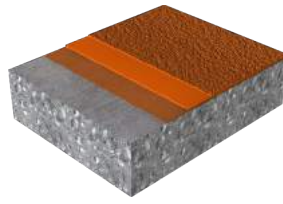
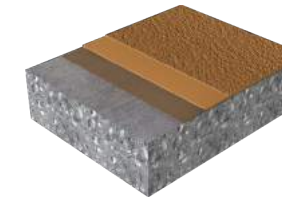





SYSTEM	Sikafloor® MultiDur ET-14	Sikafloor® MultiDur EB-24	Sikafloor® MultiFlex PB-32 UV	Sikafloor® MultiFlex PB-55 UV
DESCRIPTION	Textured unicolor epoxy roller coat	Slip resistant broadcast unicolor epoxy floor covering	Broadcast colored crack bridging system	Broadcast coloured crack bridging system
NOMINAL THICKNESS / LAYERS	< 1 mm 2	3 – 4 mm 3	3 mm 3	3 – 5 mm 4
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Good wear and abrasion resistance ■ Good chemical resistance ■ Slip resistant ■ Easy to clean ■ Color options 	<ul style="list-style-type: none"> ■ Cold storage (> -10°C) ■ High wear resistance ■ Good mechanical resistance ■ Slip resistant ■ Color options 	<ul style="list-style-type: none"> ■ Wear resistance ■ Waterproof ■ Slip resistance ■ Slip resistance ■ Waterproof ■ High flexibility ■ Crack bridging at low temperature ■ Color options 	<ul style="list-style-type: none"> ■ Wear resistance ■ Waterproof ■ Slip resistance ■ Very high flexibility / crack bridging at low temperature ■ Wear resistance ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264T ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263 SL ■ Quartz sand (0.4 – 0.7 mm) ■ Sikafloor®-264 	<ul style="list-style-type: none"> ■ Sikafloor®-161/-160 ■ Sikafloor®-324 ■ Quartz sand (0.4 – 0.7 mm) ■ Sikafloor®-359 	<ul style="list-style-type: none"> ■ Sikafloor®-161/-160 ■ Sikafloor®-376 ■ Sikafloor®-377 ■ Quartz sand (0.7 – 1.2 mm) ■ Sikafloor®-359

MULTI-STOREY AND UNDERGROUND CAR PARKS

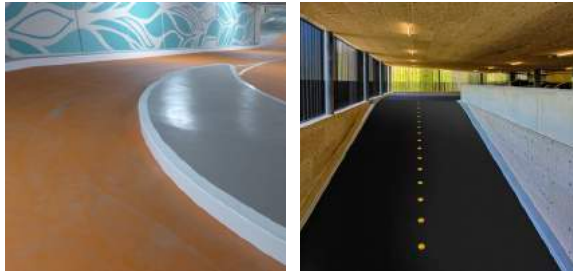
Systems for Top Decks and Exposed Areas



SYSTEM	Sikafloor® MultiFlex PB-55 UV	Sikafloor® MultiFlex PB-32 UV	Sikafloor® Pronto RB-25
			
DESCRIPTION	Broadcasted car park deck flooring & waterproofing system with UV sealer	Broadcast colored crack bridging system with UV sealer	Elastomeric waterproofing system for flooring applications
NOMINAL THICKNESS / LAYERS	3 - 5 mm 4	3 - 4 mm 3	2 - 4 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Dynamic and static crack-bridging properties (> -20°C) ■ Meets German Standard QS-11a ■ Abrasion resistance ■ Waterproof ■ Color options 	<ul style="list-style-type: none"> ■ Dynamic and static crack-bridging properties (> -20°C) ■ Meets German Standard QS-11b ■ Abrasion resistance ■ Waterproof ■ Color options 	<ul style="list-style-type: none"> ■ Crack bridging ■ Rapid curing ■ Good wear resistance ■ Good chemical resistance ■ Slip resistant ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-376 ■ Sikafloor®-377 ■ Quartz sand (0.7 - 1.2 mm) ■ Sikafloor®-359 N 	<ul style="list-style-type: none"> ■ Sikafloor®-324 ■ Sikafloor®-350 N ■ Quartz sand (0.4 - 0.7 mm) ■ Sikafloor®-359 N 	<ul style="list-style-type: none"> ■ Sikafloor®-10 / -11 / -13 Pronto ■ Sikafloor® 15 Pronto ■ Quartz sand (0.7 - 1.2 mm) ■ Sikafloor® 18-Pronto
			

MULTI-STOREY AND UNDERGROUND CAR PARKS

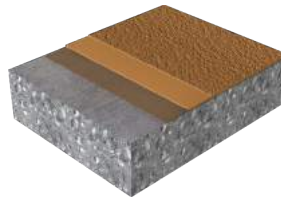
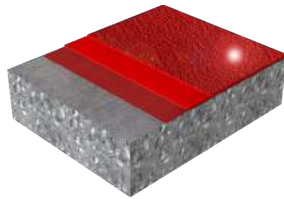
Systems for Ramps



SYSTEM

Sikafloor® MultiDur EB-24

Sikafloor® Pronto RB-25



DESCRIPTION

Broadcast unicolor epoxy floor covering

Elastomeric waterproofing system for flooring applications

NOMINAL THICKNESS / LAYERS

2 - 4 mm

2 - 4 mm

3

3

CHARACTERISTICS

- High wear resistance
- Good mechanical resistance
- Slip resistant
- Color options

- Crack bridging
- Rapid curing
- Good wear resistance
- Good chemical resistance
- Slip resistant
- Color options

SYSTEM COMPONENTS

- Sikafloor®-161 or -160
- Sikafloor®-263 SL
- Quartz sand or silica carbide (0.4 - 0.7 mm)
- Sikafloor®-264

- Sikafloor®-10 / -11 / -13 Pronto
- Sikafloor® 15 Pronto
- Quartz sand or silica carbide (0.7 - 1.2 mm)
- Sikafloor® 18-Pronto



Sikafloor® SOLUTIONS FOR LEVELLING

A PERFECTLY EVEN AND SMOOTH FLOOR SUBSTRATE surface plays an important role in the final result and life span of the floor, no matter what kind of floor covering will be installed over it. Sika supplies self-leveling compounds whose outstanding performance has been proven in construction projects with high requirements, ranging from house use to fork lift truck loads in industry.

After mixing, the Sika levelling product turns into a liquid mixture and is poured onto the prepared concrete substrate. When in liquid form the mixed product is easily applied to all areas required. Along with interior underlayments Sika also offers a fast

drying, high performance product for industrial use. The quality and ease of application with Sikafloor Levelling Compounds are the difference when compared with other products in the market.



Our key advantages of Sikafloor Levelling Systems:

- Easy mix & apply procedure
- Self smoothing and highly fluid
- Good workability and pot life
- Fast setting and drying
- Suitable for large area applications
- Low VOC
- Non-combustible

INSTALLATION THICKNESSES OF
SIKA LEVELLING PRODUCTS
RANGES FROM 1 MM UP TO 50 MM
IN ONE APPLICATION.



LEVELLING COMPOUNDS

Internal Underlayment & Industrial Overlay Compounds



SYSTEM

Sikafloor® Level TOP

Sikafloor® Level 30 (au)



DESCRIPTION

Commercial & domestic self-levelling underlayment.

Internal & external self-levelling overlay

BUILD HEIGHT

2 - 30 mm

3 - 30 mm

CHARACTERISTICS

- High flow underlayment
- Simple mix and apply - No slaking or remixing required
- Designed for large area applications
- Good pot life and working time
- Very low VOC

- Internal & external applications
- Self smoothing and highly fluid
- Suitable for structural strengthening (principle 4, method 4.4 of EN 1504-9)
- High strength > 40Mpa @ 28 days
- Industrial medium to high load (heavy-traffic + forklift pallet truck with impact load)
- Finished surface (when sealed or densified)
- Very low VOC

SYSTEM

COMPONENTS

- Sikafloor®-01 Primer
- Sikafloor® Level Top

- Sikafloor® 01 Primer
- Sikafloor® Level 30 (AU)
- Sikafloor® Curehard 24





Sikafloor® SOLUTIONS FOR COMMERCIAL AND PUBLIC AREAS

SIKA HAS DESIGNED SPECIAL flooring solutions for the use in schools, museums, retail, leisure and healthcare facilities, plus many other commercial and public buildings.

This Sika flooring range combines individual design with health care including comfort underfoot and the lowest VOC emissions, in order to create a unique flooring experience.

INDIVIDUAL DESIGN

The Sika decorative floor range meets the need for individual and decorative designs in commercial, retail and leisure facilities using colored chips, aggregates and other special fillers. These

floors allow you to create many different and unique surface designs, ranging from textured broadcast and smooth power float finishes. Sika decorative floor systems can be produced in a wide range of different color shades, with additional special colors available to order. This allows you to create your own individual designs or extend your Corporate Identity onto your floors.



COMFORT AND CARE

Sika ComfortFloor® systems for commercial and public building areas are soft enough to provide underfoot 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 their elastic deformation and recovery.

Sika ComfortFloor® SOLUTIONS

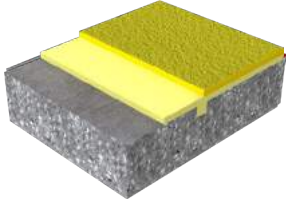
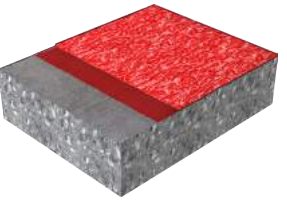

- Low VOC emissions
- Noise absorbent
- Good impact sound insulation
- High comfort underfoot
- Good wear resistance
- Good impact resistance
- Crack-bridging
- Decorative

AVAILABLE IN CUSTOM COLORS, THESE RESILIENT FLOORING SOLUTIONS NOT ONLY REDUCE FOOTFALL NOISE AND HORIZONTAL NOISE TRANSMISSION, BUT ALSO RESIST SCRATCHING THANKS TO THEIR ELASTIC DEFORMATION AND RECOVERY.



COMMERCIAL AND PUBLIC AREAS



SYSTEM	Sikafloor® PurCem® HB-22	Sikafloor® MultiDur ET -14	Sikafloor® MultiDur ES-23
			
DESCRIPTION	Medium to heavy-duty, broadcasted, medium anti-slip polyurethane cementitious hybrid screed. Commercial kitchens	Textured unicolor epoxy roller coat. For public walking pedestrian spaces.	Smooth or textured unicolor epoxy floor covering. For public spaces where a high level of traffic and loading is expected
NOMINAL THICKNESS / LAYERS	4,5 - 9 mm 2 - 4	< 1 mm 2	2 - 3 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Highly frost / blast freezing resistant (down to -40°C) ■ Heavy duty screed, high wear resistance ■ High chemical resistance ■ Thermal shock resistance ■ Hygienic ■ Slip resistant ■ Color options ■ Low VOC, low odor 	<ul style="list-style-type: none"> ■ Good wear and abrasion ■ Good chemical resistance ■ Slip resistant ■ Easy to clean ■ Color options 	<ul style="list-style-type: none"> ■ High wear resistance ■ High chemical resistance ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-21 PurCem® ■ Quartz sand (0.7 - 1.2 mm) ■ Sikafloor®-31 PurCem® ■ Sikafloor®-33 PurCem UV 	<ul style="list-style-type: none"> ■ Sikafloor®-160 or 161 ■ Sikafloor®-264T 	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-263SL /-264 ■ Sikafloor®-264T





SYSTEM	Sikafloor® DecoDur ES-26 Flake	Sikafloor® DecoDur EB-26 Quartz
DESCRIPTION	Smooth low VOC colored vinyl flaked epoxy floor covering or fine textured	Slip resistant low VOC color quartz broadcasted epoxy floor covering
NOMINAL THICKNESS / LAYERS	2 - 3 mm 4	2 - 3 mm 3
CHARACTERISTICS	<ul style="list-style-type: none"> ■ Food contact compliant ■ Low particle emissions ■ Colored flake effects ■ Medium slip resistance optional ■ Low VOC ■ Color options 	<ul style="list-style-type: none"> ■ Food contact compliant ■ Low particle emissions ■ Colored sand effects ■ Good mechanical resistance ■ Slip resistant ■ Low VOC ■ Color options
SYSTEM COMPONENTS	<ul style="list-style-type: none"> ■ Sikafloor®-161 or -160 ■ Sikafloor®-264 ■ Sika® PVA ColorFlakes (3 mm) ■ Sikafloor®-169 	<ul style="list-style-type: none"> ■ Sikafloor®-156 or -161 or -160 ■ Sikafloor®-263 SL or -264 ■ Colored quartz sand (0.3 - 0.8 or 0.7 - 1.2 mm) ■ Sikafloor®-169



SIKA SUSTAINABLE SOLUTIONS

Flooring Systems Contribute to Sustainable Construction

SUSTAINABLE DEVELOPMENT responds to trends that will shape our future flooring business. Sika invests strongly in the development of energy efficiency solutions, resource efficiency solutions, climate protection solutions and air quality solutions. Please refer to our brochure “Flooring Sustainable Solutions: More Value Less Impact” for detailed information.

PUBLIC BUILDINGS

INSTALL Sikafloor® SYSTEMS THAT MEET YOUR AESTHETIC AND TECHNICAL REQUIREMENTS



More Value

- Sika ComfortFloor® provides high quality of life with an excellent acoustic performance and freedom of design.
- Sika ComfortFloor® is robust and fully bonded to the concrete creating a monolithic floor.
- Sika ComfortFloor® is biologically resistant and withstands the impacts of cleaning and use of detergents and disinfectants.
- Sika ComfortFloor® contributes to points in various green building programs.

Less Impact

- Sika ComfortFloor® has a lower carbon footprint since it does not need any cementitious underlayment.
- Sika ComfortFloor® does not need any adhesive.
- Sika ComfortFloor® is easy to clean as it is seamless.

FOOD INDUSTRY

DESIGN AN INDUSTRIAL FLOOR THAT WILL LAST



More Value

- Sikafloor® PurCem® has a high resistance against chemical, mechanical and thermal attack.
- Sikafloor® PurCem® contributes to points in various green building programs.

Less Impact

- Sikafloor® PurCem® installed in thickness above 6 mm has superior thermal resistance.
- Sikafloor® PurCem® has a seamless surface that requires less cleaning and maintenance which therefore requires less energy and less cleaning materials.

CLEANROOM ENVIRONMENTS

SELECT AN APPROVED Sikafloor®
“CLEANROOM SUITABLE MATERIAL”



More Value

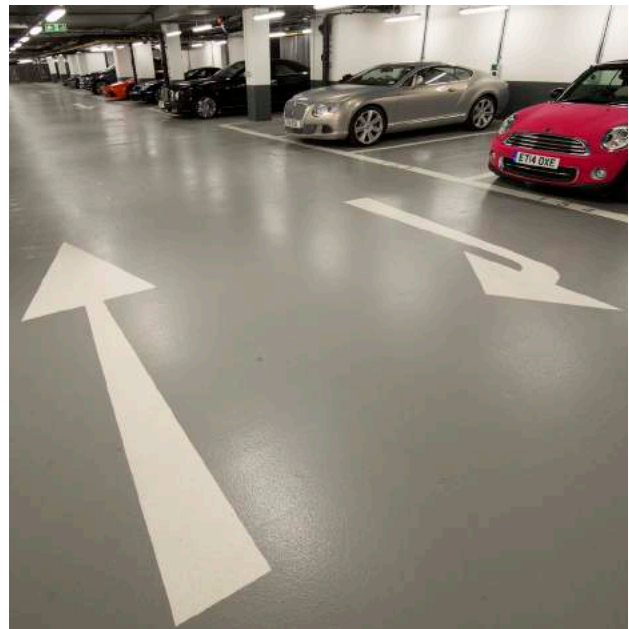
- With the Sikafloor® CR (cleanroom) there is no need for additional adhesive, underlayment, or damp-proof membranes.
- Sikafloor® CR is seamless – with no joints and no welding.
- The Sikafloor® CR contributes to various green building programs.
- Sika offers a full range of flooring, coatings and sealants solutions for clean rooms: Sikafloor®, Sikagard® and Sikaflex®.

Less Impact

- Sikafloor®, Sikagard® and Sikaflex® CSM (clean room suitable material) systems are very low in airborne molecular contamination to provide the cleanest air quality for clean rooms.
- Sikafloor® CR has a lower energy demand compared to competitive safety PVC solutions.

CAR PARKING AREAS

SELECT LIGHTWEIGHT MATERIALS FOR YOUR BUILDING



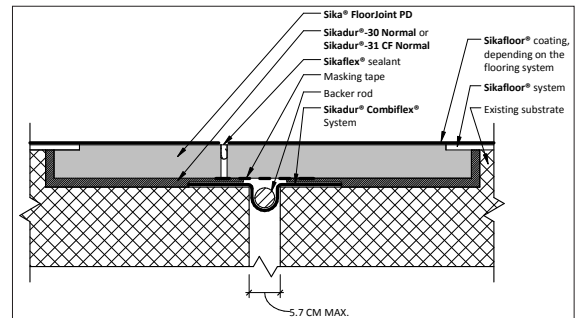
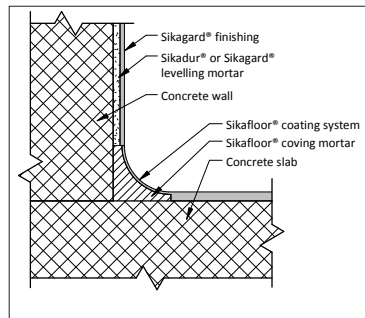
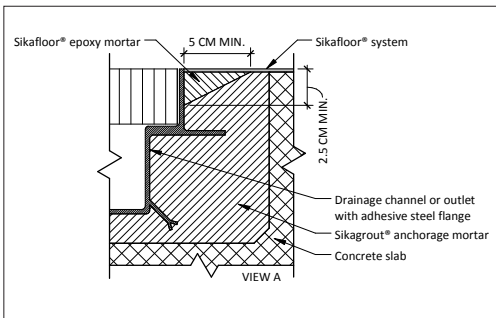
More Value

- Sikafloor® has an excellent aesthetic appearance.
- Sikafloor® is easier to clean and maintain compared with asphalt.
- Sikafloor® provides protection for the concrete and prevents the ingress of water and chloride.
- Sikafloor® contributes to points in various green building programs.

Less Impact

- Sikafloor® contributes with lower weight to the structure compared with asphalt.
- Sikafloor® has lower energy and resource demand during the installation phase compared with asphalt.

DETAILING AND JOINTING FOR FLOORING APPLICATIONS



DRAINAGE CHANNELS / GULLIES

Drainage channels / gullies should always be designed to be outside of trafficked areas wherever possible. Falls on the floors should be adequate 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 arises and cover grating fixings, as these are the most susceptible areas for premature failure.

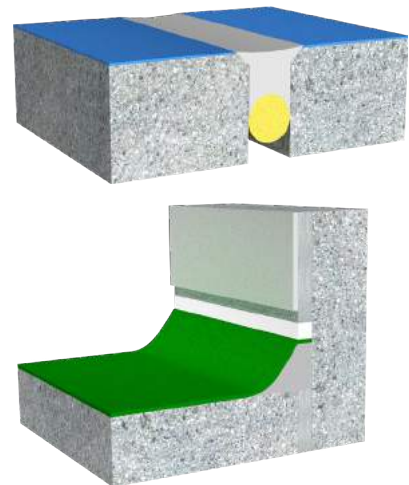
COVING

Wherever seamless coving is required for easy to clean wall-to-floor connections, Sika provides very easy to apply coving mortars composed of Sikafloor®-156/160/161 and Sikafloor®-280 filler. Ready to use kits such as Sika® Repair EP can also be used for this purpose.

JOINTING

There is no way to prevent all of the joints in floors, but they are causes of the major damages in flooring applications due to different reasons. Therefore, the proper planning and design of a floor

joint has to be performed with specific precautions to prevent future damage. Furthermore, industrial floors require reliable joint sealants to resist chemical and mechanical wear, particularly floors designed for vehicular traffic or cleaning machines, etc. Sika solutions for these joint sealants include the well proven and reliable Sikaflex® Pro-3 polyurethane sealant that is suitable for many types of floor joints including connecting joints between different materials. We have also developed pre-fabricated panels for joints in car parks and industrial floors as described on page 42-43.



Primer: Sika® Primer-3 N

Joint sealant: Sikaflex® 11 FC

A moisture curing, 1-part elastic sealant based on polyurethane resin and designed specifically for flooring.

Joint Dimensions:

min. / max. width = 10 / 35 mm




DESIGN SUSTAINABLE CONSTRUCTION WITH SIKA HIGH PERFORMANCE FLOORING SYSTEMS

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.

* Note:

- 1) The 3D graphics in this brochure are not to scale and they are only intended to illustrate the system build-ups.
- 2) The symbols such as  represent typical project related performance requirements and these are all listed and discussed on pages 50 to 52 of this brochure.

STRUCTURAL REQUIREMENTS



The static and dynamic loadings that will be imposed during both construction and service have to be considered. The floor topping 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 slabs may require additional structural strengthening – for example with Sika® CarboDur® Composite Strengthening systems.

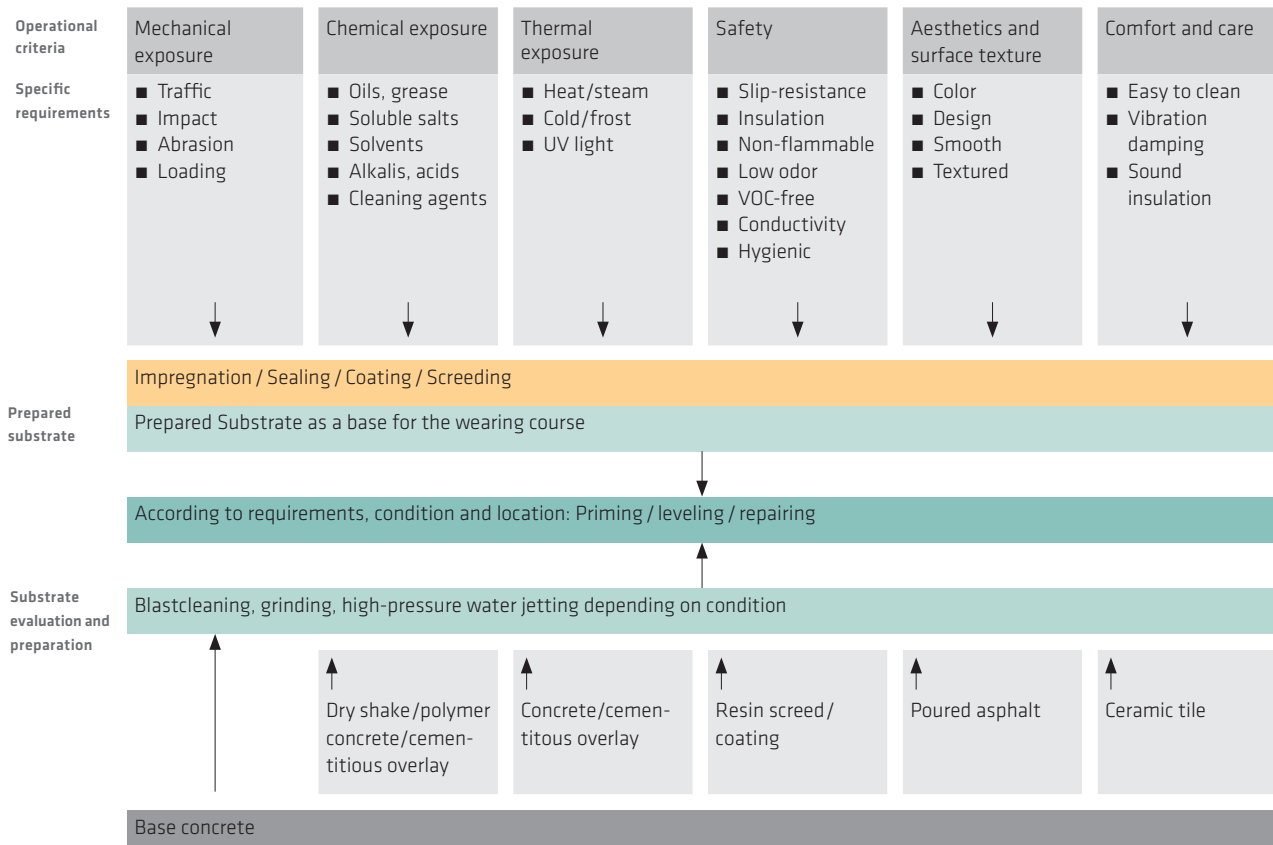
COLOR AND APPEARANCE



In addition to providing seamless concrete protection against corrosive liquids and mechanical wear, flooring systems should also meet easy-care, hygiene, safety and durability requirements with the appropriate color for the environment.

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

KEY REQUIREMENTS FOR CONSIDERATION IN SELECTING A FLOOR SYSTEM



PROJECT RELATED PERFORMANCE REQUIREMENTS



TRAFFIC AND MECHANICAL WEAR



Heavy and frequent traffic increases the physical requirements for mechanical resistance measured as abrasion. Often the greatest wear or exposure occurs in localised areas. Trucking aisles or sections around specialised 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 floor finishes. 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 temperature extremes from hot water or steam used for cleaning and cold from blast freezers for example can create extremely demanding environments; fortunately many Sikafloor® systems can durably accommodate these.



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 reconciling the floor's 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 generally given in Building Regulations by the responsible national and local authorities and cover such aspects as their difficulty to ignite and their actual behaviour in the event of a fire. Floor finishes produced with liquid polymers obviously also have to meet these requirements and limitations, which is no problem for Sikafloor® systems.



HYGIENE



Today's floors have to fulfil the highest hygiene demands and increasingly very specific requirements for the prevention of contamination, particularly in the nuclear, pharmaceutical, cosmetic, food, beverage, chemical and electronics industries. There are many Sikafloor® systems designed to meet even the strictest requirements of the latest cleanroom hygiene conditions.



IMPACT RESISTANCE, POINT LOADING



In areas where goods are mechanically handled such as production areas, warehouses, loading bays and the like, compressive and dynamic loads are generated by the movement of these goods on the lines, forklifts and pallet trucks etc. It is essential to ensure that the stresses generated are not higher than the strength of the floor topping material and / or its bond to the substrate, which is reliably achieved with Sikafloor® systems.



WATERPROOFING



Sikafloor® systems can provide an impermeable seal to protect both the concrete from attack by aggressive liquids and the underlying groundwater and the environment from the leakage of pollutants. This includes flexible and crack-bridging systems that help to ensure the reliable containment of any ecologically harmful materials, or conversely to maintain the purity of contained drinking water.



RAPID CURING



Flooring systems with rapid curing characteristics can be of tremendous benefit in reducing the necessary delays due to waiting times in new construction and in keeping the downtime in refurbishment and maintenance situations to a minimum. Fast curing systems are also an advantage for applications that have to be undertaken at lower temperatures. Sikafloor® systems therefore include a wide range of fast curing and accelerated systems.



NEUTRAL ODOR, VOC-FREE



Total solids, 100% solids, or solvent free flooring systems that also have neutral odor and low VOC emissions should now always be considered wherever possible to be sustainable and help to meet Green Building objectives, which all helps to protect the environment. This is especially the case in occupied indoor / internal or closed areas, where Sika ComfortFloor® systems are the ideal solution.



FLOOR COATING ON GREEN AND DAMP CONCRETE



In new construction the delay before fresh concrete slabs can be coated and allow the building works to continue, or the area to be put into service is a major problem. In refurbishment projects waiting for existing concrete moisture content to reduce to an acceptable level for over coating with impermeable resin coatings is also a big problem. Sika® EpoCem® Technology is an innovative solution that can be used to reduce all of this waiting time dramatically.



ELECTRICAL CONDUCTIVITY/ ESD



There is an increasing demand for conductive flooring solutions, including ESD, DIF and ECF systems. These types of flooring systems are used to protect sensitive devices from damage or to avoid the potentially explosive effects in flammable atmospheres. Sika is a world leader in this technology for both floor and wall coatings. Please also see pages 36 to 39 of this brochure.



CRACK-BRIDGING ABILITY



Static and dynamic crack-bridging properties are often required for floor coating systems in order to adequately protect the substrate and accommodate movement and vibration. This is a particular requirement on exposed car park decks for example. The crack-bridging properties of selected Sikafloor® systems can safely accommodate this movement and the Sika systems are tested for crack-bridging performance down to at least -20 °C.



CLEANING AND MAINTENANCE



In order to ensure that Sika flooring solutions stay in good condition and continue to perform and function as required to protect your investment and give years of satisfaction, we also provide fully detailed cleaning and maintenance advice and guidelines. These are available for your assistance in the Sikafloor® Cleaning Regime, which is available to download from: www.sika.com.



DAMPING OF IMPACT NOISE



Public transit and gathering places, such as entrance halls, corridors and display or sales areas require higher underfoot comfort levels and protection against the transmission of both impact noise and airborne noise. For this reason, flexible Sika flooring systems are recommended, plus SikaBond® elastic adhesives are available for wood floor systems to meet these same standards, including European Part E sound transmission regulations.



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 the highly insulated and elastic Sika ComfortFloor® solutions where this is a requirement. – Please also refer to page 60 of this brochure.

PROJECT RELATED PERFORMANCE REQUIREMENTS



MULTIPLE COLOR SHADES



The Sikafloor® range is available in almost every color shade with stable pigments available and special colors can be made to order or matched to a client's specific requirements. This includes Sika flooring systems produced to all major national and international color standards including RAL, BS 4800 and NCS.



UV LIGHT RESISTANCE



Where color is important and / or where high UV Light radiation exposure is anticipated, suitably resistant and light fast Sikafloor® systems are available. This can be particularly important on exposed or partially exposed car park or balcony decks for example. Equally UV light and color stability should always be considered for any floors with doors or windows where natural sunlight enters the building for significant periods of time.



RESISTANCE TO FURNITURE CASTORS



The wheels or castors on many chairs and other furniture and equipment are relatively small in diameter and therefore they can create heavy point loads on the floor. Only highly abrasion resistant or resilient flooring systems with proven performance such as many of the Sikafloor® systems should be used in these situations for long term durability.



VOC/AMC EMISSIONS



One of the main objectives for flooring and wall coatings in cleanrooms is to prevent the potentially damaging effects of VOC/AMC's (Volatile Organic Compounds/ Airborne Molecular Contaminants) 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 foodstuffs and potable water contact approvals.



PARTICLE EMISSIONS



Cleanroom suitability also considers all of the additional parameters relevant to the manufacture of the specific products under clean conditions, such as particle emissions, which are tested and assessed for this purpose in accordance with ISO 14644. Sika has developed special floor and wall systems with the lowest particle emissions results. Please also refer to the Sikafloor® CR systems on pages 30 to 33.



FLATNESS AND LEVEL



Underlayments required for providing a smooth (flat) or horizontal (level) surface for low performance requirements, such as prior to the application of carpets, resilient flooring, wood floors, sports floors or tiling in indoor residential areas; plus for high performance specifications requiring extreme values, such as for forklift traffic in high bay storage facilities for example.



1-COMPONENT SYSTEMS



1-Component polyurethane based systems incorporate a unique technology that allows the material to use atmospheric moisture to trigger the curing process. This means these moisture curing 1-component polyurethane coatings can be applied almost without dependence on the weather (temperature, humidity or dew point) and they dry quickly.

QUICK RENOVATION AND TURN AROUND SOLUTIONS

A BIG CONCERN in the use of floor is to renovate it after certain time period when the floor has naturally reached its end of life. By using Sikafloor® systems for the floor, this becomes relatively easy.

Sikafloor® has been used for many years in many different industries where high traffic, severe abrasion, impact and shock are daily stresses on the floor. Different techniques are available to regenerate Sikafloor® systems and extend the service-life of the whole floor. These techniques are:

- Recoating with a thin top coat compatible with the original system. This solution provides a brand new surface with the added option of changing the color.
- Refurbishment with diamond grinding pads: this technique is only possible with a thicker layer and smooth floor. The result is a regenerated floor where existing surface damage is removed and the floor retains its original color.



CLEANING AND MAINTENANCE OF Sika[®]floor

PROPER CLEANING AND EVENTUAL MAINTENANCE are needed to ensure that your Sika flooring system stays in the best shape and gives you years of satisfaction.

Sika[®]floor systems are designed as ready-to-use solutions that require no initial maintenance or polymer applications. These solutions are a real plus for environments where customers need a simple way to clean the floor, maintain its appearance and preserve their long-term investment.

However, proper cleaning procedures are needed to offer a considerable reduction in facility operating costs by lowering the need for interim floor maintenance and the time required to strip and install floor finishes, while maintaining a long-lasting aesthetic appearance. All Sika flooring systems are tested in the lab with different cleaning products to ensure customers receive appropriate cleaning instructions. In addition, Sika collaborates with international cleaning solution suppliers such

as Diversey Care to provide correct cleaning and maintenance Schedule using our lab test results. They recommend the use of proper agents in conjunction with proper cleaning pads for cleaning Sika[®]floor surfaces. Some also offers floor polishes that are dedicated to certain project types such as healthcare facilities. They are happy to provide Sika flooring customers high-level after-sales service with a specific focus on cleaning and maintenance.

Sika also provide support for life-cycle cost analyses and maintenance budgets for floors in a wide range of projects. The Technical Services Department of your local Sika company can provide you with a full list of the most suitable options for your floors.



Sikafloor® APPLICATION PROCEDURES

Substrate Inspection and Preparation

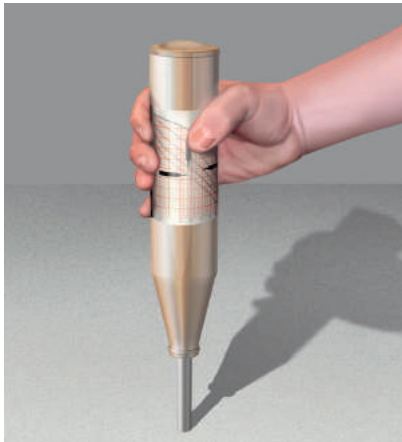
THE CONCRETE SUBSTRATE IS THE BASIS OF A NEW FLOOR, WHETHER IT IS NEW OR EXISTING.

Thorough inspection and assessment are essential to determine its condition and the necessary surface preparation for a successful flooring system to be applied.

A durable bond must be achieved between the new flooring system and the substrate, which requires a clean and contaminant free, dry (according to the system requirements) and sound surface to be mechanically prepared to remove any

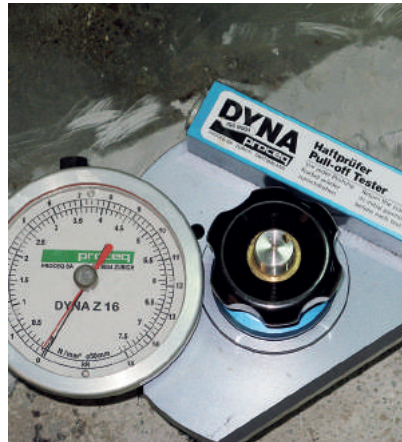
cement laitance, loose or friable particles and provide the profile required for the selected floor system. The final surface should be vacuumed to remove any dust prior to the application.

Please refer to our product method statement for proper investigation and preparation of the substrates or contact your local Sika technical department.



MEASURING THE COMPRESSIVE STRENGTH

The compressive strength of the substrate should not be less than 25 N/mm² (25 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 the compressive strength i.e. with a Schmidt hammer.



MEASURING THE COHESIVE STRENGTH

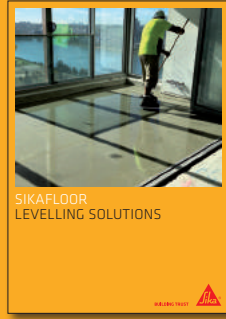
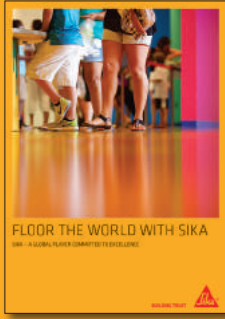
Concrete floors generally have some cement laitance with low cohesive strength in the top few mm. This weak layer must always be removed during the substrate preparation. Withstanding stresses from concrete shrinkage, thermal shock or loading requires a minimum cohesive strength. This should be: $\geq 1.5 \text{ N/mm}^2$ ($\geq 1.5 \text{ MPa}$) and this is usually measured by a number of Pull-off tests across the floor.



SUBSTRATE MOISTURE CONTENT

It is extremely important to measure the substrate moisture content because cement bound substrates should normally only be over-coated at a moisture level of < 4% pbv. ASTM D4263 is a simple test with a Polyethylene-sheet of at least 1 m² taped to the concrete surface. This should be left in position for at least 24 hours, prior to removal and testing. Moisture Meters such as the Tramex Concrete Encounter CME 4 can then give a clear reading of the moisture content as a % pbv. Moisture content > 4% by volume, or visible rising moisture (condensation) on the bottom of the sheet, indicates the need for additional drying time or the use of Sikafloor® EpoCem® Technology.

ALSO AVAILABLE FROM SIKA



FOR MORE FLOORING AND COATING INFORMATION:

WE ARE SIKA

Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing and protecting in the building sector and the motor vehicle industry. Sika's product lines feature concrete admixtures, mortars, sealants and adhesives, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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BUILDING TRUST

