



CONSTRUCTION SOLUTIONS  
LONG-LASTING, HIGH-QUALITY  
HEALTH-CARE FACILITIES

BUILDING TRUST







## SIKA, YOUR IDEAL PARTNER

When you design and build a health-care facility, what criteria do you consider in relation to not only satisfying the necessary building performance requirements, but also to reducing the facilities operating costs for years to come? No manufacturer understands the building and maintenance needs of health-care facility owners and managers better than Sika.

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# THE SIKA PRESCRIPTION FOR LONG-LASTING, HIGH-QUALITY AND COST EFFECTIVE HEALTH-CARE FACILITIES

**AT SIKA WE TAKE CARE** to help you produce facilities with a comfortable and hygienic interior environment for both patients and staff. This environment is then assured and protected by a good looking, watertight and secure building envelope that is achieved using Sika solutions to further save money by minimizing energy consumption and reducing future external repair and maintenance requirements..

## A COMFORTABLE AND HYGIENIC INTERIOR ENVIRONMENT - PAGE 8

### SOLUTIONS FOR:

**1**

Floor system build-ups and finishes, page 10

**2**

Wall finishes & hygienic coatings, page 23

**3**

Building and connection joint sealing, page 23





**We also take care** to assist you in producing a durable facility that lasts for the long-term and requires greatly reduced maintenance in the future, this brings substantial economic benefits to health-care facility owners. From more than 100 years of experience, Sika's Basement-to-Roof solutions today provide a single source for fully integrated and compatible products and system solutions for your facilities.

These capabilities can help you address many important issues in both new construction and refurbishment projects, and can also combine to help the business run efficiently and maximize the return on investment. Sika solutions themselves are designed and proven to be energy-efficient, highly reliable and sustainable – as measured by full life cycle cost evaluation.

## A WATERTIGHT AND SECURE BUILDING ENVELOPE – PAGE 26

### SOLUTIONS FOR:

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# SIKA – THE GLOBAL TECHNOLOGY AND MARKET LEADER IN SPECIALITY CHEMICALS FOR CONSTRUCTION

**SIKA – A COMPANY WITH 100 YEARS OF HISTORY.** The history of Sika began in 1910 and rapidly expanded from 1918 when the Gotthard rail tunnel was specified to be waterproofed with a Sika system. Today Sika is the global technology and market leader in specialist chemicals for building and construction, providing products and complete system solutions for architectural and structural concrete, structural waterproofing, steel corrosion protection, roof waterproofing, structural glazing, flooring and walling, sealing and bonding, damping and reinforcing, plus so much more.

## WORLDWIDE PRESENCE FOR CUSTOMERS

Sika has a long track record of success as a complete system and problem solution provider on many different health-care facility projects all around the world. Please visit the “reference” section on [www.sika.com](http://www.sika.com) to see just a small selection of these projects. With extensive technical expertise and solid practical experience on every continent and in all types of climate and environment Sika is a highly qualified and reliable partner for all of your projects.

Sika has highly professional technical and sales teams to support our customers and their clients. These teams include qualified engineers and technicians with expertise in all of the relevant technologies and applications, together with technical service engineers that have extensive practical installation and on-site training expertise to help ensure that the work is completed correctly and is ‘right first time.’

## SIKA SERVICES TO SUPPORT YOUR SUCCESS

Sika’s service teams will work with you to help ensure complete satisfaction on every project. Qualified Sika people will provide support in every phase of the project: from initial feasibility, through outline planning and detailed design, during

all of the site construction works, including detailed quality control, to the project’s completion and final handover.

These support services from Sika can frequently include:

- Site surveys and analysis
- Costing’s and alternative tailor-made solutions
- Laboratory and field testing/trials
- Innovative design concepts
- Specifications, including necessary detailing
- Product and system selection
- Method Statements
- Application training and on-site support
- Innovative application equipment
- Defined Quality Control procedures

## SIKA TAILOR-MADE GUARANTEES AND FUTURE MAINTENANCE PLANS

Sika guarantees and future maintenance plans give extra security for health-care facilities. Follow-up support and all of the necessary technical expertise and resources are available to support our customers and their clients worldwide.



# FOR SUSTAINABILITY AND PROTECTION OF THE ENVIRONMENT – SPECIFY SIKA

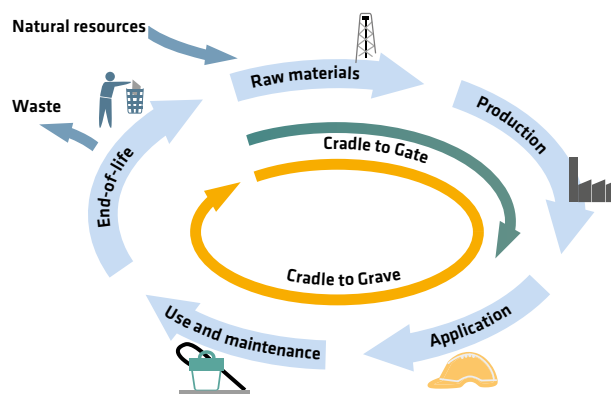
**INCREASINGLY LIMITED NATURAL RESOURCES AND CLIMATE CHANGE**, plus water, waste and infrastructure development and management are global megatrends, which are re-shaping markets and as a result also guiding Sika business. As an innovative pioneer, Sika thinks ahead and is committed to a better environment with a sustainable and integrated product approach.

**Our products and system solutions** contribute very positively to the sustainability of your health-care facility. Being aware that environmental impact occurs at each stage of a product life cycle, Sika uses Life Cycle Assessment (LCA) method according to ISO 14040 and European Standards EN15804, in order to provide a quantitative evaluation of the potential environment impact of our products, and over their whole life cycle. Measured as their LCA, Sika works to develop:

- Energy-efficiency solutions
- Climate protection solutions
- Material-efficiency solutions
- Water-efficiency solutions

All of which can contribute very significantly towards our product and your project's sustainability.

Sika has always been a pioneer in supplying solutions to meet the highest environmental standards and participate in green building certification programs, such as LEED, BREEAM and DGNB. Sika is committed to genuinely sustainable building and civil engineering structures and so is also a member of the World Business Council for Sustainable Development (WBCSD), the United Nations Environment Programme (UNEP) Sustainable Building Initiative (SBCI) and Responsible Care.



Examples of product performance showing how Sika orients its research and development to enhance the utility of its products by optimizing their sustainability profile, and so creates added value to their customers:

- Solutions with contribution to green building certification such as LEED
- Product durability and longevity
- Improved indoor air quality aligned to the most stringent global standards and regulations
- Cost efficient application
- Ease of maintenance after installation
- Various recycling programmes
- Supporting refurbishment plans as alternative option to a rebuild, with the most advanced refurbishment solutions from basement to roof

In the future, we believe that our sustainable approach will become even more crucial and continue Sika's success. We will anticipate and respond strongly and positively to the major environmental challenges ahead, which we are certain will continue to result in new and improved solutions. visit [www.sika.com](http://www.sika.com)

# A COMFORTABLE AND HYGIENIC HEALING INTERIOR ENVIRONMENT

With the support of Sika flooring, wall coating and joint sealing solutions

## **THE INTERIOR ENVIRONMENT FOR BOTH PATIENTS AND STAFF MUST BE COMFORTABLE AND HYGIENIC**

Health-care facilities consist of many different areas, including the highly technical medical and specific treatment rooms, to areas with more normal administrative office, commercial, restaurant and other service areas such as plant rooms and parking areas for example. In a modern health-care facility all of these need to have both functionality and also to help create an environment where people feel safe and secure, in or-

der to encourage healing and recovery. Sika has developed a complete range of systems with solutions for the performance, durability and aesthetic requirements for all of these specific areas and environments: Sikafloor® systems for flooring, Sikagard® systems for wall coatings and Sikaflex® systems for joint sealing.





## GROUND FLOOR

**1**

Patient room, page 16

**2**

Corridors, page 20

**3**

Laboratories, page 17

**4**

Kitchens, page 19

**5**

Entrance areas/Main concourse, page 20

**6**

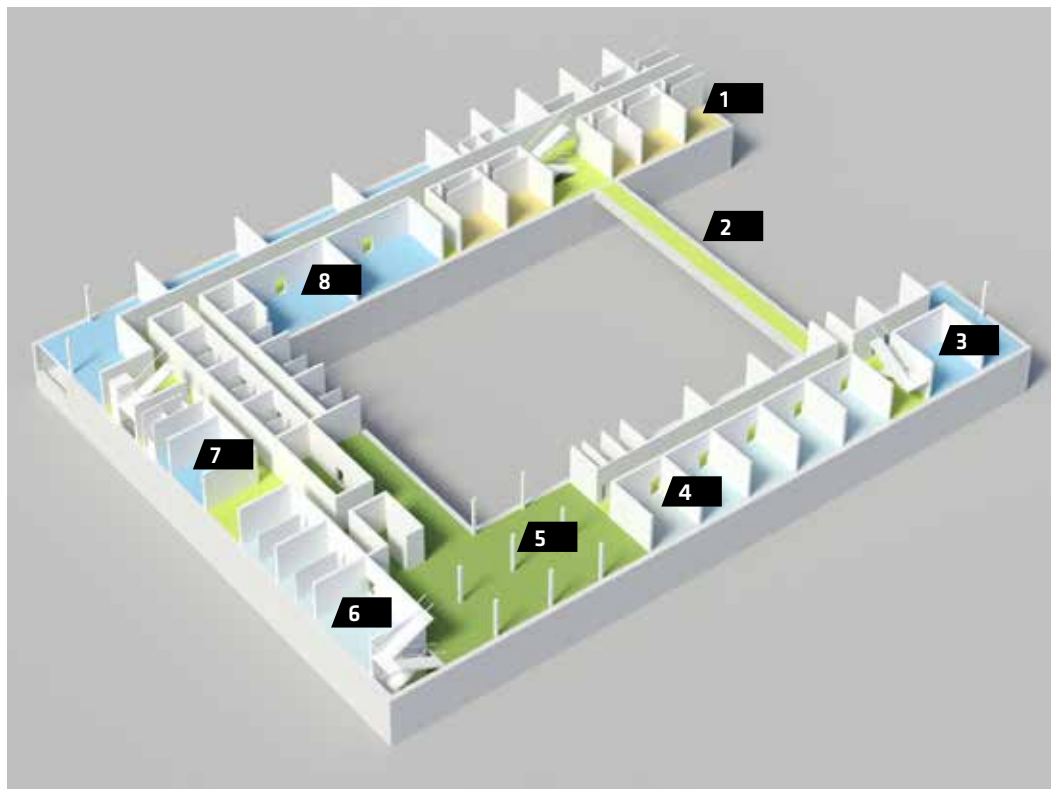
Offices, meeting rooms, page 18

**7**

Emergency rooms, page 17

**8**

Operating theatres, page 17



## BASEMENT FLOORS

**1**

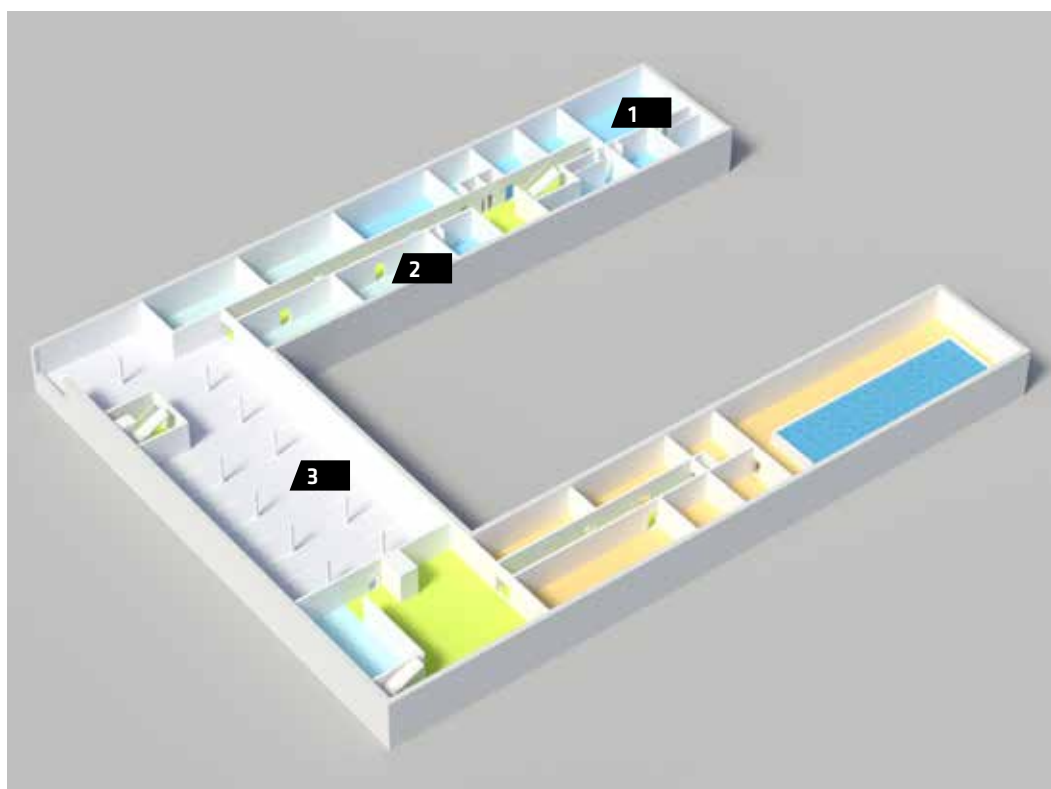
X-ray centres, page 17

**2**

Services i.e. laundry, page 19

**3**

Underground parking, page 22



# SEAMLESS, HYGIENIC, SAFE AND HEALTHY

Sika solutions are high performance, high quality and have long-life expectancy

## CHALLENGE FOR FLOOR AND WALL JOINTS:

Joints in floors, between and around floors, walls, columns and entrances are unavoidable if the floor finishes are produced with sheet products such as PVC or linoleum, because the sheets themselves and many different details require joints, and frequently complex joints. These joints are then the main points of weakness in the floor for damage or a build-up of bacteria, see below the photos.



## THE SIKA SOLUTION: EASY-CLEAN AND SEAMLESS INTEGRATED FLOOR AND WALL FINISH SYSTEMS

Sika floor-wall systems have no welded joints and are fully seamless to eliminate any bacteria breeding sites, plus they are odour free during application and in service. For the necessary detailing and connections between floors, walls and any penetrations, Sikaflex® chemically and mechanically resistant sealants provide permanently watertight and hygienic solutions.





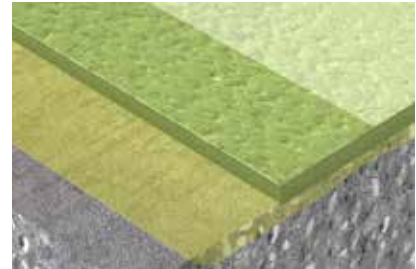
### HYGIENE AND BACTERIOSTASIS

In health-care facilities floor finishes, wall coatings and joint sealants have to fulfill the highest demands for hygiene and prevent bacterial and fungal growth. The Sika solutions are certified for health-care facilities fulfill the most stringent requirements for hygiene and bacteriostasis. These include Cleanroom Suitable Materials (CSM) according to the highest International Standards of ISO 14644 Cleanrooms and associated controlled environments: Classification of air cleanliness.



### VOC/AMC EMISSIONS

The source of Volatile Organic Compounds (VOC's) and Airborne Molecular Contaminants (AMC's) in the interior environment include the emissions from the building components and finishes. ISO 14644 defines suitable / healthy levels of these emissions for specific environments. The Cleanroom Suitable Materials (CSM) – Sikafloor®, Sikagard® and Sika-flex® are the 'state of the art' in this area of health-care facility, and extensively tested to give the best performance.



### SURFACE DESIGN AND TEXTURE

Sikafloor® is developed for walk with safety underfoot: different areas of flooring require different levels of slip resistance. All of these different requirements and standards for surface design, texture and anti-skid/slip resistance can be fully met and safely accommodated by Sikafloor® systems.



### ELECTRICAL CONDUCTIVITY / ESD

Electrostatic charges can be produced between surfaces because of friction and these charges then allow adsorption of dust particles on the surfaces, which can damage sensitive medical equipment. In hospitals, there is also an increasing requirement for conductive flooring and wall coating solutions to protect sensitive hospital equipment.



### CHEMICAL AND STAIN RESISTANCE

Sikafloor® and Sikagard® systems are highly resistant to attack from many different chemicals, including attack and staining caused by iodine and other sterilization chemicals such as hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>). This is a major reason for the selection of Sikafloor® and Sikagard® systems as the floor and wall finishes in many health-care facilities.



### FIRE RESISTANCE

Fire resistance classifications for floors are generally given in the Building Regulations of the responsible national and local authorities. These cover aspects such as their difficulty to ignite and their actual behaviour in the event of a fire. Sikafloor® and Sikagard® systems are produced to safely meet or exceed these requirements and limitations.



# DESIGN WITH COLOUR, COMFORT UNDER-FOOT, NOISE REDUCTION

Sika flooring and wall coating support design creativity

**CREATIVE DESIGN IS ESSENTIAL** to produce an attractive, pleasant and welcoming interior environment with underfoot comfort and minimal footfall noise transmission in order to support and enhance the care and treatment in health-care buildings. A key concern in this respect is therefore the emotional response to the environment by patients of course, but also their visitors and the health-care professionals working in the facility every day. Sikafloor® and Sikagard® wall coating systems provide not only seamless, multi coloured and a range of different surface finishes and textures, but also a range of solutions for reducing both footfall (impact) and airborne (reflected) noise.





#### DESIGN WITH COLOUR AND TEXTURE

The Sikafloor® flooring and Sikagard® wall coating ranges are available in almost every colour shade. These can also be combined with additional coloured flakes and aggregates, which allow the creation of almost unlimited attractive and individual finishes, including extending corporate identity onto the floors.



#### THERMAL CONDUCTIVITY

People can perceive the comfort underfoot and warmth of a floor to their feet very differently and often subjectively. In addition to the ambient room and floor surface temperatures, the thermal conductivity of the substrate is often the most significant factor. Sika provides a wide range of Sika® Comfort-Floor solutions to meet these requirements, plus these are also compatible with underfloor heating systems.



#### ABRASION AND MECHANICAL RESISTANCE

All types of traffic cause mechanical abrasion of the floor surface to some degree, varying from foot traffic and the relatively soft wheels of beds and medical equipment on the wards, to the higher abrasion from materials delivery and fork lifts in service areas, or in the facilities car parks – particularly on the ramps and turning areas. Indoors the highest levels of abrasion will be in the highest traffic areas such as in the entrance areas and main corridors. The surfaces of Sikafloor® systems are designed to have excellent abrasion and mechanical resistance to meet the requirements of the areas they are designed for.



#### SOUND DAMPING AND SHOCK RESISTANCE

In many health-care facilities the floors need to provide a level of comfort when people are walking on them, and at the same time they must be impact and shock resistant, plus reduce the level of both footfall and impact noise in the area. To meet all of these demands Sika has developed the range of Sika ComfortFloor® solutions.

# AN OVERVIEW OF SIKA SOLUTIONS FOR THE INTERIOR FINISHING OF HEALTH-CARE FACILITIES

Functional Zones Areas		Flooring Systems				
		Sika Comfort-Floor®	Sika Comfort-Floor® Pro	Sikafloor® ESD	Sika® DecoFloor	Sika® DecoQuarz
Healthcare and Pharmaceutical (category clinical specialist, category clinical and category Specialist patient areas)	Operating theatres/Intensive care rooms		Ideally suited	Suitable		
	Examination rooms (incl. radiology etc.)	Ideally suited		Suitable		
	Laboratories, research rooms	Suitable		Ideally suited		
	Emergency rooms/A&E				Ideally suited	
	Patient rooms	Suitable	Ideally suited			
	Therapy/Treatment rooms	Ideally suited			Suitable	
	Pharmaceutical storage				Ideally suited	
Facility Service	Kitchens					
	Laundry areas					
Leisure	Health/Fitness centre's	Ideally suited	Suitable			
General Industrial/ Comercial	Children's day care areas	Suitable	Ideally suited			
	Libraries, Retail shops	Suitable	Ideally suited			
	Visitors areas, Waiting rooms	Ideally suited			Suitable	
	Offices, Administrative areas	Ideally suited	Suitable			
	Cafeterias/Restaurant areas	Ideally suited			Suitable	
Traffic	Entrance areas and Main corridors				Ideally suited	Suitable
	General Corridors	Ideally suited			Suitable	
	Staircases					
	Logistic/Storage areas					
	Underground car parking areas					

■ Ideally suited
 ■ Suitable







# SIKA SOLUTIONS FOR PATIENT ROOMS AND OUTPATIENT/ VISITOR AREAS

**PATIENT ROOMS AND OUTPATIENT/VISITOR AREAS** shall provide a therapeutic and warm environment, so patients, outpatients and visitors can all feel relaxed even 'at home' in the space, and not be disturbed by the smell of building materials or excessive noise. Putting safety first is essential in these areas, so all of the surface finishes must have certified low emissions (VOC's and AMC) to ensure clean indoor air, they must be anti-allergic, have the highest fire ratings and be extremely easy to clean and decontaminate, with no joints or surfaces that promote the growth of micro-organisms.



## **Sika recommendations for flooring systems:**

Sika ComfortFloor® Pro for patient rooms.

Sika ComfortFloor® for corridors, visitors' areas and waiting rooms

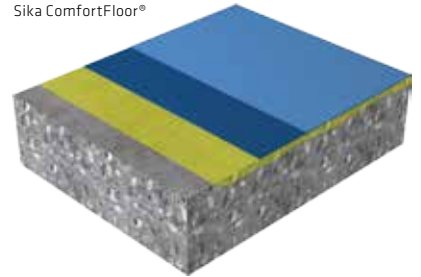
## **Sika recommendations for wall coating systems:**

Sikagard-Hygienic Coatings

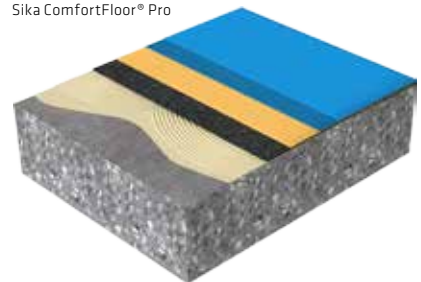
## **Sika recommendations for joint sealing:**

Sikaflex® Pro-3

Sika ComfortFloor®



Sika ComfortFloor® Pro



Sikagard® Hygienic Coatings



# SIKA SOLUTIONS FOR FUNCTIONAL MEDICAL AREAS

**THESE AREAS HAVE HIGH PERFORMANCE** requirements regarding the levels of hygiene standards in terms of biological contamination, low VOC/AMC emissions (Volatile Organic Compounds/Airborne Molecular Contaminants) and low particle emissions. For purely functional reasons some of these medical areas can also require high fire resistance ratings, good chemical resistance, high impact and abrasion resistance, plus aesthetics. For rooms with ESD sensitive electronic devices or volumes of flammable material then the floors must also be electrically conductive to the relevant standards.



## **Sika recommendations for flooring systems:**

In highly technical areas such as operating theatres and intensive care suites, Sika ComfortFloor® Pro is ideally suitable.

In medical areas such as A&E and pharmacy storage, Sika® DecoFloor system is ideally suitable.

For examination and treatment rooms; Sika ComfortFloor® is ideally suitable.

## **Sika recommendations for wall coating systems:**

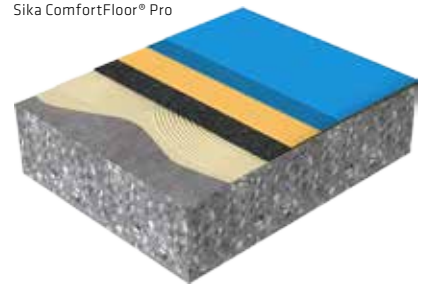
Sikagard-Hygienic Coatings

All Sika floor and wall coating systems are available in a wide range of colours.

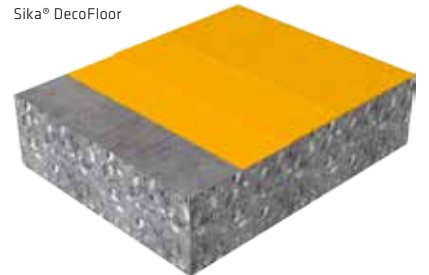
## **Sika recommendations for joint sealing:**

Sikaflex® Pro-3

Sika ComfortFloor® Pro



Sika® DecoFloor



Sikagard® Hygienic Coatings



## **Typical health-care facility functional zones include:**

- Operating theatres
- Treatment rooms
- A&E
- Intensive care
- Laboratories
- Morgues
- Pharmacies
- Sterilization rooms
- Examination rooms (X-ray/MRI/radiology)



# SIKA SOLUTIONS FOR OFFICES & COMMERCIAL AREAS

**IN OFFICES AND COMMERCIAL AREAS** there is a need for both functional and aesthetically pleasing flooring and wall solutions, which are odour free and comfortable underfoot. The floors must be resistant to pedestrian foot traffic and the movement of small hard-wheeled furniture and equipment. Sound dampening properties to minimize footfall and airborne noise, together with artistic and decorative design should also be possible.



## **Sika recommendations for flooring systems:**

Sika <sup>®</sup>ComfortFloor for offices, consultation rooms, administration areas and therapy rooms.

Sika ComfortFloor Pro for libraries and children's day-care areas.

## **Sika recommendations for wall coating systems:**

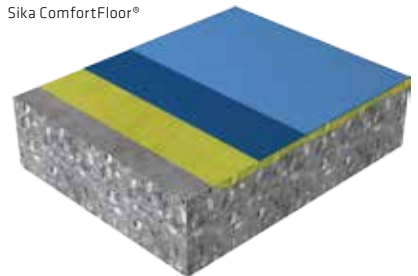
Sikagard-Hygienic Coatings

All Sika flooring and wall coating systems are available in a wide range of colours.

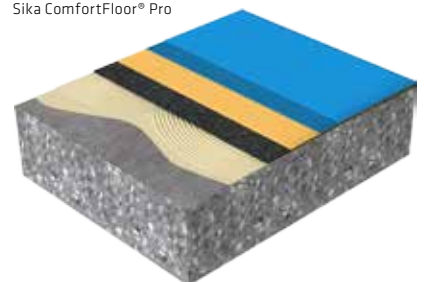
## **Sika recommendations for joint sealing:**

Sikaflex<sup>®</sup> Pro-3

Sika ComfortFloor<sup>®</sup>



Sika ComfortFloor<sup>®</sup> Pro



# SIKA SOLUTIONS FOR FACILITY SERVICE

**FACILITY SERVICE AREAS** can often be distinguished by their particularly heavy duty use. Such areas can also be wet and greasy, be subject to a lot of wear, abrasion and chemical attack, yet they are still required to provide a high degree of safety and security in relation to slip resistance, ease of cleaning, maintaining clean indoor air and having the highest fire rating. Some of these areas are located below ground level and the basement waterproofing is therefore also very important to keep these rooms both safe and functional. Please refer to Page 38. Sika basement waterproofing.



## **Sika recommendations for flooring systems:**

Sikafloor® PurCem®-20 for kitchens and food processing areas.

Sikafloor® PurCem®-21 for laundries and storage areas, Sikafloor® 263/264 smooth, coloured screeds for storage and logistic areas.

Sikafloor® ESD for areas with sensitive devices.

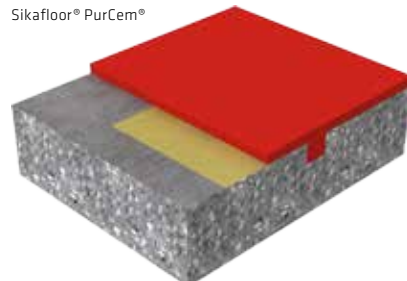
## **Sika recommendations for wall coating systems:**

Sikagard-Hygienic Coatings

## **Sika recommendations for joint sealing:**

Sikaflex® Pro-3

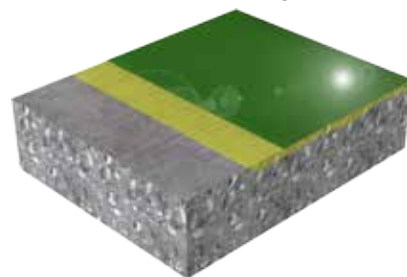
Sikafloor® PurCem®



Sikafloor® ESD



Sikafloor®-263/-264 smooth coloured rigid screed



# SIKA SOLUTIONS FOR BUILDING ENTRANCES, CORRIDORS AND STAIRWAYS

**THE MAIN PEDESTRIAN TRAFFIC AREAS** into and through a facility will obviously be subject to the highest wear and must have a comparatively high wear resistant surface. In addition these areas are visually very important for patients, visitors and the staff who need to use them every day, therefore the floor and wall finishes also need to have good aesthetic, coloured design possibilities, including area and route demarcation. Good fire resistance and clean indoor air certification is also a prerequisite.



## **Sika recommendations for flooring systems:**

Sika® DecoFloor for entrance halls, reception areas, shops and main corridors.

Sika ComfortFloor® for staircases and corridors, cafeterias, restaurants and other communal areas.

Sikafloor®-2530 /2540 W coloured floor coatings for limited use staircases. Staircases also need special anti-slip surface finishes.

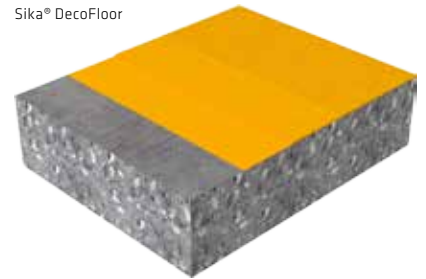
## **Sika recommendations for wall coating systems:**

Sikagard-Hygienic Coatings

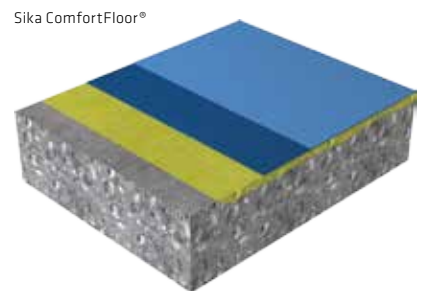
## **Sika recommendations for joint sealing:**

Sikaflex® Pro-3

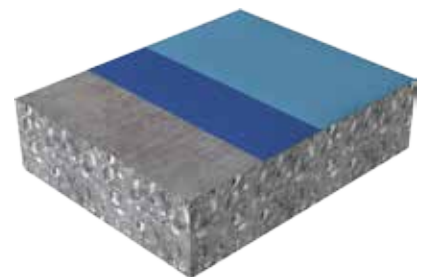
Sika® DecoFloor



Sika ComfortFloor®



Sikafloor®-2530 /2540 W coloured floor coatings



Sikagard® Hygienic Coatings





# SIKA SOLUTIONS FOR INDOOR FITNESS AND EXERCISE AREAS

**INDOOR FITNESS AND EXERCISE AREAS** such as physiotherapy rooms and indoor fitness, exercise and general recreation areas can have different requirements to many of the other functional zones of a health-care facility. Underfoot resiliency and ease of cleaning are 2 key considerations when selecting the right flooring system for these areas, additionally clean Indoor Air certification and high fire resistance are also required.



## **Sika recommendations for flooring systems:**

Sika ComfortFloor® Pro system with high resilience and comfort underfoot, protecting the users from fatigue.

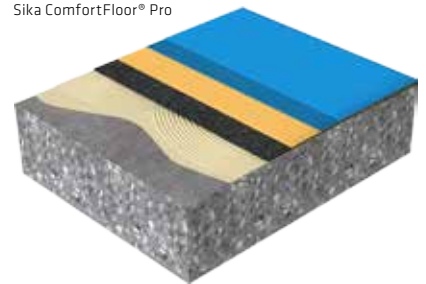
## **Sika recommendations for wall coating systems:**

Sikagard-Hygienic Coatings

## **Sika recommendations for joint sealing:**

Sikaflex® Pro-3

Sika ComfortFloor® Pro



Sikagard® Hygienic Coatings



## **Typical areas in a health-care facility are:**

- Physiotherapy rooms
- Fitness centres
- Exercise and recreation areas

# SIKA SOLUTIONS FOR CAR PARKS INCLUDING UNDERGROUND

**CAR PARK DECK** or flooring materials firstly need to protect and waterproof the concrete slab below. Additionally there are many other different stresses imposed in these areas by the vehicular traffic, the abrasion, impact and automotive fluid resistance are all key criteria, together with the skid/slip resistance required, when designing car park floors. Underground parking areas and garages also need waterproofing against the ground water. Please refer to Page 38 Sika Basement Waterproofing.



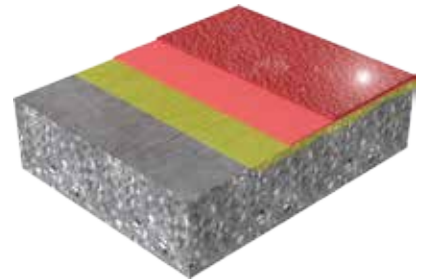
**Sika recommendations for flooring systems:**

Sikafloor®-263/-264 broadcast finished coloured, slip resistant rigid screeds

**Sika recommendations for joint sealing:**

Sikaflex® Pro-3

Sikafloor®-263/-264 broadcast coloured screed

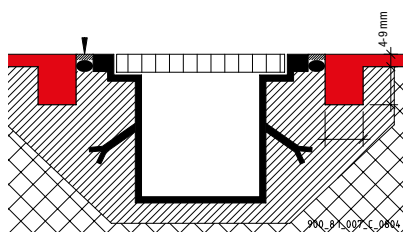
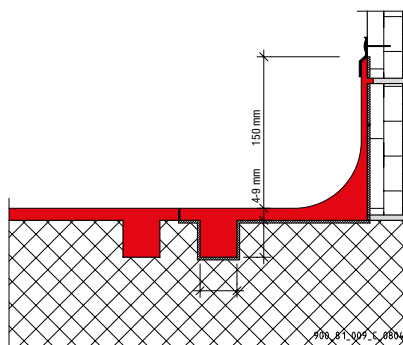


# SIKA SOLUTIONS FOR HYGIENICALLY SEALED FLOOR JOINTS AND WALL COATING

**HYGIENICAL FLOOR JOINT SEALING AND WALL COATING SYSTEMS** contribute significantly to ensuring a seamless and healthy interior environment in hygienic health-care facilities.

**The Sikaflex® sealing solutions** for floor joints are designed to seal and hygienically seal the surfaces, with the specified joint movement and mechanical wear resistance from the intended traffic and movement of the structure. Water or aggressive disinfection or sterilizing liquids used in health-care facilities and cleaning machines will also have an impact on the durability of floor joint sealants. Therefore these must have suitable mechanical strengths, chemical resistance and excellent adhesion, with the precise requirements dependent on the function and location of the respective joints. Sikaflex® elastic sealants fulfill all these requirements and have outstanding fast-curing and bacteriostatic features.

**All of the medical areas** and food preparation and use areas require bacteriostatic and fungistatic wall surface finishes. Sikagard® hygienic coatings are designed for such areas with strict hygiene requirements, in addition, their performance will not be reduced by repeated and intensive disinfection procedures. Advanced Sikagard® wall coating systems can last 10 to 15 years before maintenance and recoating is required, which is around 3 times the life span of a normal wall coating.



Please contact Technical Services in your local Sika company for specific system details including CAD drawings.

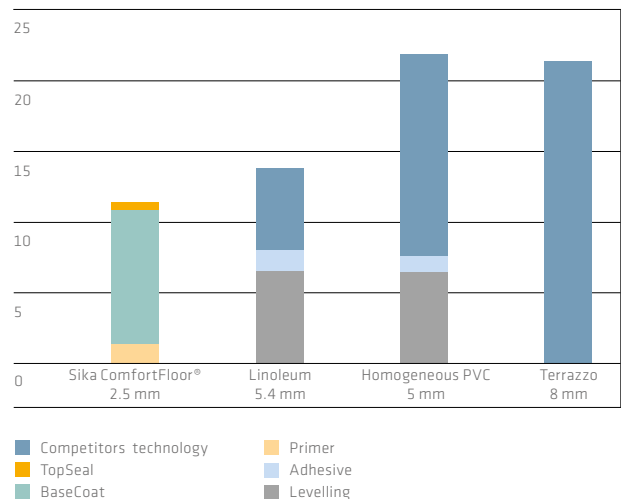
# Sika ComfortFloor® LIFE CYCLE ASSESSMENT FOR A SUSTAINABLE SOLUTION

**Life Cycle Assessments** (LCA's) show that in addition to their good application characteristics and performance on your floors, the advanced range of Sika ComfortFloor® systems are also a very good investment in the long-term, this is due to a combination of their excellent durability and their ease of maintenance without the need to completely remove the residual material and install a new flooring system. Sika ComfortFloor® systems do not require any cementitious underlayment's nor additional adhesives, plus they are applied to be fully monolithic with the concrete or screeds within the building structure.

**Case study:** The Flevomeer Library in the City of Leylstad, Holland, had to be refurbished and upgraded. The selection of a Sika ComfortFloor® system produced an excellent technical and aesthetic solution with a seamless surface that is fully bonded to the substrates. The carbon footprint of Sika ComfortFloor® is lower than alternative system, which can also require an additional damp proof membrane, levelling compounds and adhesives. Sika ComfortFloor® systems also eliminate the need for any welding on site, as is required with sheet systems.

End-of-Life scenario: Sika ComfortFloor® systems still have to go to landfill at end-of-life, the same as the levelling compound and adhesive residues from Linoleum, PVC sheets and Terrazzo Systems. The Linoleum and PVC sheets themselves also go 20% to landfill and 80% to incineration at their end-of-life (reference: ERFMI).

Global Warming P (GWP) [kg CO<sub>2</sub>-eq./m<sup>2</sup>] - Lifespan





# FLOOR CLEANING, MAINTENANCE AND REGENERATION



**Cleaning and eventual maintenance** are needed to ensure that your Sika flooring system stays in the best of shape and gives you years of satisfaction. The correct cleaning and maintenance schedule should therefore always be used. When first installed and fully cured, ready for operation, your Sikafloor® should be cleaned with an appropriate floor cleaning solution and using the most suitable equipment for the area concerned.

Sika provides professional cleaning concept for its main flooring systems. The Technical Services Department of your local Sika company can provide you with a full list of the most suitable options for your floors.



# SIKA SOLUTIONS FOR A WATER-TIGHT AND SECURE BUILDING ENVELOPE

**TAKE CONTROL OF YOUR ENVIRONMENT** with building envelope solutions from Sika.

**Every part of the building envelope**, from the roof and the external facades walls to the basement, can all be vulnerable to water ingress. This can lead to damage to the internal finishes, the furnishings and equipment and even premature deterioration of the building fabric and the structure itself. Additionally damp insulation reduces the buildings thermal efficiency as do any draughts, plus and possibly most importantly, the quality and hygiene of the internal environment is compromised.

These problems result in a combination of costly maintenance and repair requirements, increased energy costs, a shortened life span for your asset – the building itself. Reduced indoor air quality and hygiene levels however, always remain the biggest risk in health-care facilities. Therefore these buildings needs a high performance “envelope” that provides secure and unyielding protection from the elements.

Sika has a remarkable 100 years of experience in developing and producing a wide range of quality products and systems that can waterproof and protect, seal, bond, strengthen, reinforce, and when necessary, repair every part of the building envelope. Sika is your single source for fully integrated and

compatible solutions for superior protection of your building envelope. A tailor-made, custom protection strategy from Sika minimizes the threats to your building and helps to maximize your Return on Investment.

This includes all of the major structural and building system components and critical functions in both new construction and the refurbishment of existing buildings, from the basement to the roof. Sika building envelope technologies simultaneously promote functionality, enhance the appearance, and extend the service life of your building.



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# SIKA SOLUTIONS FOR TYPICAL ROOF AND DECK WATERPROOFING PROJECTS

**A LONG-LASTING WATERTIGHT ROOF** is essential for the reliable operation and sustainability of a building. Rain, snow, wind uplift forces, sun light, and many other environmental influences can cause failure of the roof system. This results in leaking and damage which require costly repairs, and possibly re-roofing. As the global leader, with a proven record of more than 50 years, Sika produces high quality and long-lasting Sarnafil® and Sikaplan® polymeric membranes, plus SikaRoof® MTC liquid applied membrane that meet the specific needs and budgets of roofing for health-care facilities.



**'Exposed roof'** systems are the widely used for many types of buildings and facilities because of their almost unlimited design possibilities, with membrane colour, profiles and rooftop graphics. Sika provides a wide range of exposed roof systems which can also easily withstand the environmental influences of wind uplift forces, rain, hail and snow, plus UV light exposure, heat and cold, air born pollution and dust.

**Sika recommendations**  
Sarnafil® S 327 PVC or Sarnafil® TS 77 FPO mechanically fastened roofing system, Sarnafil® G 410/410 Felt PVC or Sarnafil® TG 76 Felt FPO adhered roofing system, SikaRoof® MTC liquid applied membrane roofing system.



**A Helipad** is a special deck area on a roof for helicopter landings. Therefore these areas must be waterproof, highly mechanically and abrasion resistant, with dynamic and static crack-bridging properties. The surfaces must also be UV-light stable and non-dusting under the strong down draught from the helicopters. Usually these areas also have to include and display large two-digit numbers and/or a logo with vivid colours.

**Sika recommendations**  
Sikafloor®-375 broadcast, highly crack-bridging, coloured screed.



**Congested roof** areas are sometimes unavoidable in health-care facility buildings because of the many penetrations of ducting and pipework required for plant and equipment that is installed on the roof. This can make roofing and particularly re-roofing applications very difficult and time consuming due to the required treatment of so many complex and critical details.

**Sika recommendations**  
SikaRoof® MTC seamless and totally watertight solutions.



**Conventional gravel ballasted roofing** systems have been established for many years and are suitable on flat roofs with an adequately designed load bearing structure. Their main advantages are ease of access and maintenance, plus the waterproofing membrane is also protected and ballasted against wind uplift and fire. As with green roofs, the waterproofing membrane below the gravel needs to be resistant to biological attack from micro-organisms. Sika provides this type of roof build-up with PVC and FPO sheet membranes and liquid applied membranes to fulfill all different requirements.

**Sika recommendations**  
Sikaplan® SGMA PVC loose-laid roofing system. Sarnafil® TG 66 FPO loose-laid roofing system. SikaRoof® MTC Ballasted liquid applied membrane roofing system.





**Green roofs** on health-care facilities are becoming more and more popular, due to their additional benefit of reducing a building's 'heat-island-effect', with increased thermal insulation and energy saving, as well as improved image and aesthetics.

There are two green roof categories: 'extensive' - with shallow growing small plants such as grasses and sedums; and 'intensive' - with thicker soil and drainage, for planting larger plants, bushes and small trees, thus creating roof gardens.

Sika has special sheet membranes for green roofs, plus all of the ancillary products and accessories required, including the drainage and filter layers.

**Sika recommendations**

Sikaplan® SGmA PVC loose-laid roofing system.  
Sarnafil® TG 66 FPO loose-laid roofing system.



**Solar Roofs** are also becoming more and more popular, due to the increased focus on energy costs, thermal efficiency and sustainability. Sika provides special solar roof systems and has created partnerships with leading Photovoltaic system producers and installers to provide complete solutions. Sika's SolarRoof® reflective roof membranes increase solar panel efficiency, particularly when used in combination with the latest bifacial PV panels that also generate power from the light reflected by the roof waterproofing membrane surfaces they are installed on.

**Sika recommendations**

Sarnafil® S/G (SR) PVC mechanically fastened roofing system.  
Sarnafil® TS 77 (SR) FPO mechanically fastened roofing system.



**Balconies** take our indoors outdoors as a comfortable and attractive living space, but they are then exposed to all the extremes of the weather. The deck surfaces must therefore be made reliably and securely waterproof to prevent water ingress to the building fabric and structure, plus the surfaces must also be functional and resistant to impact, abrasion and staining, whilst retaining an attractive and decorative appearance. The complete range of Sika deck waterproofing solutions make this possible, with combinations of flexible waterproofing sheet or liquid applied membranes, sealing impregnations, coatings, floorscreeds and elastic joint sealants.

**Sika recommendations**

Sika® Balcony Premium or Sika® Balcony Standard.



**On every 'flat' roof** system build-up, elastic joint sealants are needed to seal the different connection joints such as between flashings and the structure, around roof lights and any other roof penetrations and between any laminated metal sheets. The main requirements for the sealants in these applications are:

- Excellent adhesion to both porous and non-porous elements
- Compatibility with the roofing membranes and good adhesion to them where necessary
- High UV light & weathering resistance

**Sika recommendations**

SikaHyflex®-320 Roof 1-component, neutral curing silicone sealant.

# SIKA SOLUTIONS FOR RE-ROOFING AND ROOF MAINTENANCE

**EXTENDING THE LIFE** of existing health-care facilities roofs with appropriate refurbishment solutions is often much more economical than the alternatives of complete re-roofing or effectively re-building. Sika roof refurbishment systems can also have the advantage of significantly reducing risk and increasing fire resistance.

**There comes a point in time** where building owners have 3 basic options, to remove the old roof build-up from the structure/substrate and install a completely new roofing system, to install a new roofing system over the top of the old one, or to simply clean and overcoat the existing roof with Sika's SikaRoof® MTC liquid membrane.

Compared to traditional bitumen re-roofing, Sika's full range of mechanically fastened or adhered single ply Sarnafil® or Sikaplan® polymeric membranes and SikaRoof® MTC liquid membrane roof refurbishment systems have many potential advantages, including longer life-expectancy, flame-free ap-

plication, energy-smart light coloured reflective membranes, lower additional loadings, plus considerably higher flexibility and elasticity, particularly at low temperatures. Sika roof refurbishment solutions are therefore provided with clear guarantees for years of increased service life.

All Sika roofing systems can be installed with or without additional thermal insulation as required. In order to select the most appropriate roof refurbishment system, a specific project survey and assessment has to be undertaken by a suitably qualified specialist. Please contact your local Sika Technical Service Department for expert assistance with this.







**Sika recommendations for the refurbishment of existing bitumen roofs**  
Sarnafil® TG 76 Felt FPO or Sikaplan® SGK adhered roofing system, or SikaRoof® MTC liquid applied membrane.



**Sika recommendations for the refurbishment of existing polymeric roofs**  
Sarnafil® TS 77 FPO or Sikaplan® G/VG/VGWT mechanically fastened roofing system, or the SikaRoof® MTC liquid applied membrane system.



**Sika recommendations for congested existing roofs with difficult access**  
SikaRoof® MTC liquid applied membrane, which can also be used for easier secure detailing of Sika single ply membrane roofing systems.





# SIKA SOLUTIONS FOR WATERTIGHT FACADES AND WINDOWS

**THE BUILDING FACADES, INCLUDING THE WINDOWS,** usually provide the first visual impressions of a health-care facility and these can also influence the way people feel about their potential care or their work environment. The exterior façade walls also play key roles in the interior environment for climate control and weather protection, and in the overall sustainability of the building. The performance requirements for building facades are therefore becoming increasingly demanding.

**Energy efficiency requirements** for exterior walls are more and more stringent, strongly influencing building standards all around the world. Sika has developed technologies and systems for facades that help designers to meet higher energy efficiency and environmental requirements, whilst also ensuring safe and economic installation in addition to reducing overall construction times.

Sika provides cost-effective, high-performance solutions for producing, waterproofing, protecting, sealing and bonding exterior facade walls – continually developing new products and systems to satisfy the increasing demands. Sika works in close cooperation with leading façade designers and manufacturers using the latest material technologies for all types of facade construction.







**Sika recommendations for the concrete structures and facade elements**

Sika concrete admixtures help to ensure high quality concrete for structural design and form, plus surface texture, finish and colour including: Sika® ViscoCrete® for Self Compacting Concrete (SCC), Sika® Rugasol® for exposed aggregate surfaces, Sika® ColorFlo® for colored concrete and Sika® PerFin® for fine surfaces.



**Sika recommendations for concrete sealing and protection systems**

Protective surface coating: Sikagard®-675W or Sikagard®-680 S rigid, and Sikagard®-550W elastic. Surface applied, impregnating corrosion inhibitor: Sika FerroGard®-903+. Hydrophobic impregnation: Sikagard®-740 W.



**Sika recommendations for concrete repair**

Corrosion protection of exposed steel reinforcement: Sika MonoTop® Concrete patch repairs: Sika MonoTop® mortars according to the parent concrete's strength. Concrete levelling and reprofiling: Sika MonoTop® mortar.



**Sika recommendations for the watertight sealing of concrete and masonry facade joints**

SikaHyflex®-250 Facade and Sikaflex® Construction+ elastic joint sealants.



**Sika recommendations for metal and glazed facade joints**

SikaHyflex®-260 Facade and SikaHyflex®-360 Facade elastic joint sealants.



**Sika recommendations for windows installation**

Low modulus joint sealant (STP): SikaHyflex®-220 Window Expansive polyurethane foams: Sika Boom® Series, 1-part, highly expansive polyurethane fixing foam to fill and seal the gaps between window frames and adjacent buildings. Flexible, flashing tapes: SikaMembran® Window – for air tight, wind tight and rain tight sealing around glazed units.



**Sika recommendations for structural glazing and glass curtain walls**

Weather sealing with Sikasil® WS-1-component, neutral-curing, silicone glazing sealants. Structural glazing with Sikasil® SG.

# SIKA SOLUTIONS FOR WATERTIGHT BASEMENTS AND OTHER BELOW GROUND STRUCTURES

**HIDDEN BELOW GROUND**, as well as providing additional useable space within the building footprint in watertight basements, below ground areas and structures are frequently used for essential service functions such as parking garages, plant rooms, storage and laundry areas for example. In these types of area the waterproofing requirement may not be so stringent. However, for basements used for patient care and treatment, laboratories and technical areas, offices and computer centres and archives, the structure must be totally watertight and sometimes also vapour-tight.

Below ground structures are constantly exposed to potential water ingress and rarely have an opportunity to fully dry out, even following the initial construction. Penetrations through basement floors and walls, plus any movement, construction and connection joints can all provide an easy path for water infiltration. Leaks can also arise following defects, errors or damage in construction, such as inadequate concrete com-

paction, displaced waterstops and inappropriate concrete mix designs etc. Correcting these problems “after the fact” is especially challenging because of a lack of direct access. Many buildings also now have tight site constraints or adjacent structures that prevent easy or full access to the exterior side of the basement.

The managed supervision and construction of watertight



basements and other belowground structures are critical for durable, long term service and function. The selection of the most appropriate waterproofing concept and system for any specific project is dependent on many factors, and it is important to involve a qualified waterproofing specialist at the design stage.

Your local Sika Technical Services Department can provide this expert advice and support your watertight construction project from the earliest stages in the design office, throughout site construction and Quality Control, to final completion and acceptance on site – ‘start to finish’.

Sika has more than 100 years of experience in the development and production of complete solutions for the successful waterproofing and protection of basements and below ground structures.



**For the highest level of watertightness requirements**

Compartmentalized, highly flexible, welded Sikaplan® membrane and waterbar system with integrated control and injection points.



**System solutions for limited watertightness demands**

Rigid, waterproofing systems consisting of Sika waterproof concrete using Sika admixtures, or Sika renders/tanking combined with Sika’s joint waterproofing solutions.



**For normal basement watertightness requirements**

Flexible, pre- and post-applied SikaProof® fully bonded sheet membrane systems, Sika ‘White Box’ systems and Sika-lastic® PU/PUREA based liquid applied membrane systems.



**System solutions for lower watertightness demands requirements**

Sika Iglolfex® and Sika® Bitu-seal bitumen based coatings and membranes, combined with Sika joint waterproofing systems.

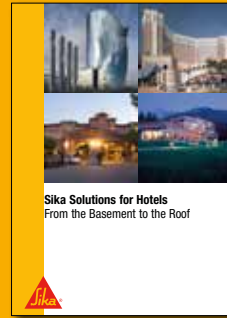
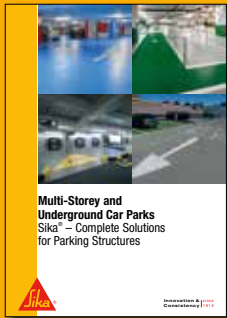


**Repair solutions for leaks**

Full range of the available technologies for the temporary and permanent injection solutions for almost any type of leaks.



# ALSO AVAILABLE FROM SIKA



## SikaSmart SOLUTIONS FOR PROJECTS:



### WHO WE ARE

Sika AG, Switzerland, is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, façades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature highquality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

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



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