



FLOORING

Sika<sup>®</sup> FloorJoint -

THE ULTIMATE JOINT SOLUTION

BUILDING TRUST



# Sika® FloorJoint

Hardly any vibrations noticeable and quick return to service

**INNOVATION** for the installation and refurbishment of joints in concrete slabs and concrete screeds – prefabricated, carbon fiber reinforced polymer composite system, and with high mechanical resistance.



## **Sika® FloorJoint – THE ULTIMATE JOINT SOLUTION**

Structures are designed with expansion and contraction joints at appropriate places to allow inevitable movements. The design of the joint is important for the overall design to function correctly. Sika provides a huge range of elastic joint sealants to seal and protect joints in walls and ceilings. However, joints in floor substrates have to withstand a lot of different stress: direct traffic with heavy forklifts or cars, chemical attacks and mechanical abrasion, etc. Often a floor joint also has to be waterproof to protect the substrate from corrosion. Ordinary joint solutions with a joint sealant or with metal profiles aren't resistant enough to withstand this stress and might fail after a short time.

The Sika® FloorJoint range is designed to meet those demands under various exposures. Furthermore Sika® FloorJoint provides many unprecedented advantages.

## **DESCRIPTION**

Sika® FloorJoint is a prefabricated, carbon fiber reinforced polymer composite floor panel system with high mechanical resistance. Its wave like joint design permits improved load distribution and results in minimum vibrations under direct car and forklift traffic.

Sika® FloorJoint panels are used for the installation and refurbishment of joints in concrete slabs and concrete screeds. They can be used for parking lot decks, garage floors, ramps, inside storage areas and assembly halls, maintenance workshops, hospitals, schools and warehouses with normal to medium wear. The different models in the Sika® FloorJoint range meet the various demands in each area.

### CHARACTERISTICS / ADVANTAGES

- 100% waterproof when installed with Sikadur-Combiflex®
- No corrosion, free of metal
- Grindable profile for level integration into the floor surface
- Hardly any vibrations noticeable under direct car and forklift traffic
- Significant reduction of wear with components such as wheel bearings, etc. from forklifts
- High mechanical and chemical resistance
- Easy application with the screed or resin applicator
- No welding, easy detailing, easy to repair
- Waterproofing solution for the connection between horizontal and vertical construction elements
- Bonded with Sika adhesives without screws
- Thin installation
- Short downtime
- Overcoatable with resinous coatings
- Waterproof connection flange
- Fire resistant

### SPECIFICATION

Four considerations when choosing a Sika® FloorJoint system:

- What kind of traffic is the Sika® FloorJoint exposed to?
- How big is the existing joint in the substrate?
- How much movement of the joint from summer to winter is expected?
- What time of year is the installation planned for?

For a specialist counseling or if you have any questions regarding a joint solution, please don't hesitate to contact your local Sika organization.



# Sika® FloorJoint SYSTEMS FOR PARKING GARAGES

Waterproof, non-corroding and quick return to service

## FUNCTIONALITY AND SAFETY IN MULTI-STORY PARKING LOTS

Floor joints in parking garages and parking decks are a major challenge in both new buildings and when refurbishing existing structures. Watertightness is one of the key factors in parking structures. With their connection flanges Sika® FloorJoint PD and Sika® FloorJoint PDRS combined with Sikadur-Combiflex® systems provide 100% watertightness.

Furthermore, in modern buildings, esthetics and noise reduction play an increasingly important role. Traditional metal solutions have clear limits in cases where a complicated joint line is present, or when noise reduction is required. Here the Sika® FloorJoint PD joint panel proves its strengths. The carbon fiber reinforced polymer concrete prefabricated panel fits seamlessly and virtually invisibly to the adjacent resin coverings.

In areas where ramps and floors connect, vertical movement in joints can occur. Also, greater vertical joint movement can be caused by long floor slabs. In such cases Sika® FloorJoint PDRS is the perfect solution. The concentric incorporated rubber seal allows for more movement and protects the joint and Sikadur-Combiflex® system from damage.

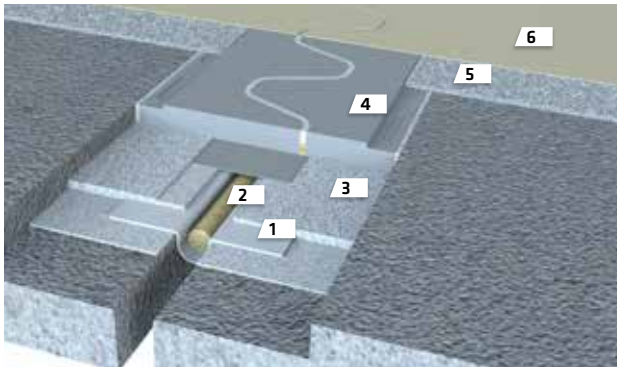
Parking lot top decks are mostly uncovered. Due to the temperature delta from summer to winter we have to expect higher elongation of the concrete screed than in covered

parking decks or underground parking lots. The value of joint movement has to be calculated by the engineer, which then indicates the right choice between Sika® FloorJoint PD or PDRS. Normally Sika® FloorJoint PDRS is more suitable for outdoor application due to its higher absorption of movement.

The STUVA test institute in Cologne has specific test equipment to simulate nearly 300'000 overruns at 50 Km/h and truck tires with a weight of 10 tonnes. This test is of course much too severe to simulate a parking lot environment but even under these harsh conditions both Sika® FloorJoint PD and Sika® FloorJoint PDRS achieved top results and remained completely intact.



### Sika® FloorJoint PB-30 PD



1. Waterproofing	Sikadur®-30 or Sikadur®-31 CF normal + Sikadur-Combiflex® SG-10 P
2. Backing rod	Sika® Backing Rod, size according width of the joint
3. Adhesive	Sikadur®-30 Normal or Sikadur®-31 Normal
4. Floor panel	Sika® FloorJoint PD jointed with Sikaflex® Pro-3
5. Wearing course	e.g. Sikafloor®-156/-161 + Sikadur®-375, broadcast in excess
6. Top coat	e.g. Sikafloor®-359 N

#### DESCRIPTION

Sika® FloorJoint PD (= Park Deck) is a prefabricated, carbon fiber reinforced polymer (CFRP) composite floor panel with high mechanical resistance. Its wavy joint design allows for improved load distribution and results in minimum vibrations under direct car and forklift traffic. The profile is equipped with a recessed flange along both sides used to blend in with new floor coverings for smooth transition. Sika® FloorJoint PD is the main part of the Sika® FloorJoint PB-30 PD system.

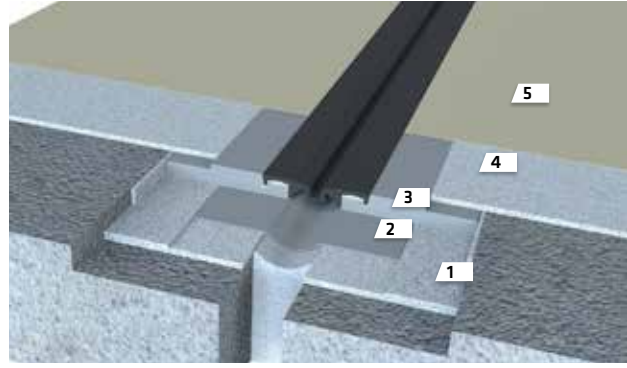
#### USES

Floor joint panel for installation and refurbishment of joints for concrete / concrete screeds with normal to medium wear, e.g. for inner and outer zones of parking lot decks, parking garage floors, ramps and floors in warehouses.

#### CHARACTERISTICS / ADVANTAGES

- High mechanical and chemical resistance
- Non-corroding
- Waterproof system design possible
- For gaps in the substrate with a maximum width of 60 mm (maximum positive joint movement = 40 mm)
- Grindable profile for level integration into the floor surface
- Hardly any vibrations noticeable under direct car traffic
- Thermal expansion coefficient similar to resin-based floors
- Easy to install / easy to repair
- Short downtime / trafficable after 24 h

### Sika® FloorJoint PB-30 PDRS



1. Adhesive	Sikadur®-30 or Sikadur®-31 CF normal
2. Waterproofing	Sikadur®-30 or Sikadur®-31 CF normal + Sikadur-Combiflex® SG-10 P
3. Floor panel with rubber seal	Sika® FloorJoint PDRS, the rubber seal is gummed up with Sikabond® TF plus N
4. Wearing course	e.g. Sikafloor®-156/-161 + Sikadur®-375, broadcast in excess
5. Top coat	e.g. Sikafloor®-359 N

#### DESCRIPTION

Sika® FloorJoint PDRS (= Park Deck Rubber Sealed) is a prefabricated, carbon fiber reinforced polymer (CFRP) composite floor panel with high mechanical resistance. It's concentric incorporated rubber seal permits low vibrations under direct car traffic. Sika® FloorJoint PDRS is suitable for vertical and horizontal movements of the concrete slabs on both sides of the joints. The profile is equipped with a recessed flange along both sides, used to blend in with new floor coverings for smooth transition. Sika® FloorJoint PDRS is the main part of the Sika® FloorJoint PB-30 PDRS system.

#### USES

Floor joint panel for installation and refurbishment of joints for concrete / concrete screeds with normal to medium wear e.g. for inner and outer zones of parking lot decks, parking garage floors and ramps.

#### CHARACTERISTICS / ADVANTAGES

- Suitable for vertical movements of concrete slabs on both sides of the joint
- Exchangable rubber seal
- High mechanical and chemical resistance
- For gaps in the substrate with a maximum width of 50 mm (maximum positive joint movement = +50 mm)
- Non-corroding
- Waterproof system design possible
- Grindable profile for level integration into the floor surface
- Hardly any vibrations noticeable under direct car traffic
- Thermal expansion coefficient similar to resin-based floors
- Easy to install / easy to repair
- Short downtime / trafficable after 24 h

# Sika® FloorJoint SYSTEMS FOR INDUSTRIAL ENVIRONMENT

Hardly any vibrations noticeable and quick return to service

## HEAVY FORKLIFT TRAFFIC IN INDUSTRIAL ENVIRONMENTS

Floor joints in industrial areas equipped with conventional steel profiles or only with a joint sealant are subject to heavy loads when they are driven over by forklifts. Such joints are never absolutely flat and they can cause noise, vibration and impact on wheel bearings. This causes the forklifts to suffer and can contribute to high wear of parts. When transporting fragile or sensitive goods, it is crucial to avoid vibrations so as not to damage them. The Sika® FloorJoint S, -XS and -EX joint systems are the perfect solutions. The prefabricated, carbon fiber reinforced polymer concrete profile can be installed absolutely flat. Only the joint sealant may be slightly raised. Its wavelike joint design permits improved load distribution. The result is a noiseless and nearly vibration-free ride suitable for all kinds of forklifts. In areas where goods are transported

with AGVs (automatic guided vehicles) or air cushion transport systems, requirements are met for evenness and less vibration with Sika® FloorJoint.

## SMALLER JOINTS IN VIBRATION SENSITIVE AREAS

Hospital corridors, professional kitchens, precision mechanical industry and many other application fields also need absolutely flat floors and can't accept vibrations when rolling over joints. Imagine a hospital bed with an injured patient getting shaken each time when rolling over a defective floor joint or if a trolley full of parts for exclusive clockwork judders over every floor joint. In such areas the temperature is stable and the joint movement is small. The convenient Sika® FloorJoint XS provides a cost-effective solution that can be trafficked silently and with hardly any vibrations noticeable.



## DESCRIPTION

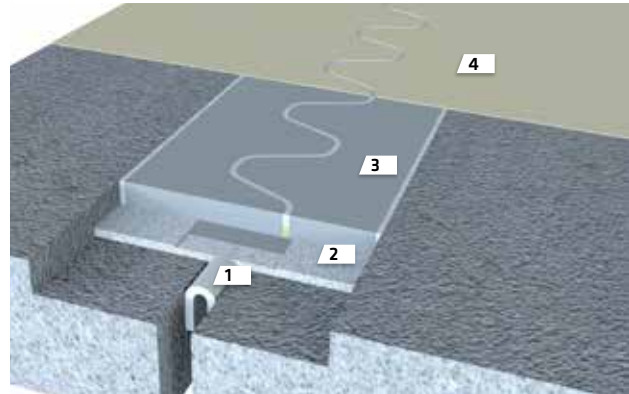
Sika® FloorJoint S (=Standard), Sika® FloorJoint XS (= eXtra Small) and Sika® FloorJoint EX (= EXcentric) are prefabricated, carbon fiber reinforced polymer (CFRP) composite floor panels with high mechanical resistance. Their waved joint design allows for an improved load distribution and results in minimum vibrations under direct car and forklift traffic. Sika® FloorJoint S, -XS, and -EX are the main components of the Sika® FloorJoint PS-30 S, -XS and -EX system.

## USES

Sika® FloorJoint PS-30 S, -XS and -EX systems are used in new build and refurbishment of joints for concrete slabs / concrete screeds with normal to medium wear, e.g. for storage and assembly halls, maintenance workshops, hospitals, schools and warehouses. They are particularly used in all kinds of industry where a large amount of goods is transported with forklifts, AGVs (automatic guided vehicles) or even air cushion transport systems. The value of joint movement has to be calculated by the engineer for the right choice from the Sika® FloorJoint systems.

## Sika® FloorJoint PS-30 S

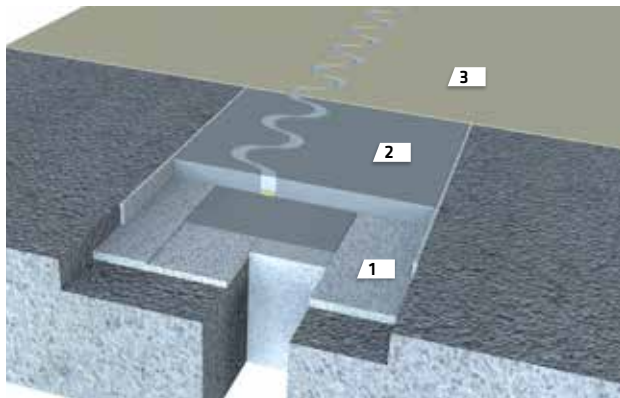
For gaps in the substrate with a maximum width of 30 mm (maximum positive joint movement = 20 mm)



1. Backing rod	Screed edge stripping supplied in rolls of 50 m. Height: 80 -100 mm Thickness: 5 mm
2. Adhesive	Sikadur®-30 Normal or Sikadur®-31 CF Normal
3. Floor panel	Sika® FloorJoint S
4. Floor Coating	e.g. Sikafloor®-304 W/-264/-263 SL

## Sika® FloorJoint PB-30 EX

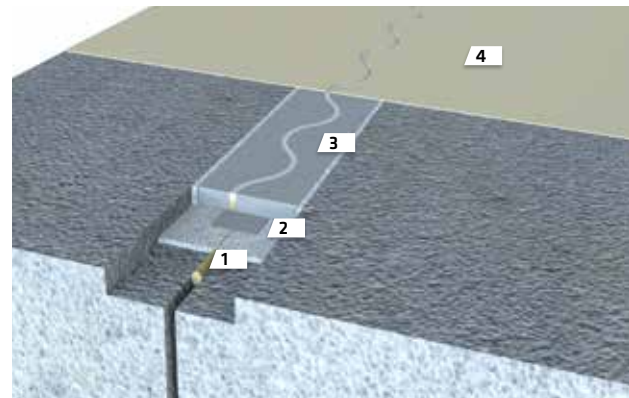
For gaps in the substrate with a maximum width of 50 mm (maximum positive joint movement = 20 mm)



1. Adhesive	Sikadur®-30 Normal or Sikadur®-31 CF Normal
2. Floor panel	Sika® FloorJoint EX
3. Top coat	e.g. Sikafloor®-304 W/-264/263 SL

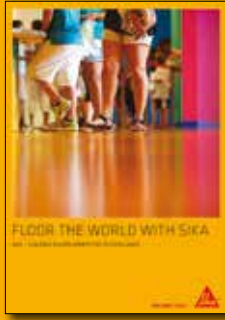
## Sika® FloorJoint PB-30 XS

For gaps in the substrate with a maximum width of 5 mm (maximum positive joint movement = 3 mm)



1. Backing rod	Backing rod, 8 mm diameter
2. Adhesive	Sikadur®-30 or Sikadur®-31 CF Normal
3. Floor panel	Sika® FloorJoint XS
4. Floor Coating	e.g. Sikafloor®-304 W/-264/-263 SL

# ALSO AVAILABLE FROM SIKA



## FOR MORE SIKA FLOORING 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.

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



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