



SEALING & BONDING

Sika Solutions for Sealing of Floor,
Pavement , Facade and other
Specialty Joints

BUILDING TRUST



Sealing Solutions for Joints in Industrial Floors



General Description & Main Requirements

Sealants used for floor joints are required to have:

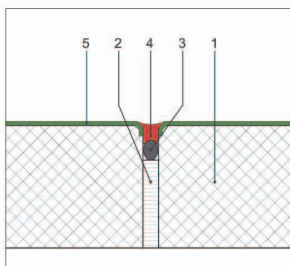
- High mechanical strength
- High abrasion resistance
- Good chemical resistance
- Excellent adhesion properties

Depending on the area of application special requirements are important in addition. The manufacturing industry and the foodstuff industry have a plurality of such additional demands.

Generally, they need sealants which:

- Can withstand traffic loads from fork lifts and cleaning machines
- Are cleanable with high pressure
- Survive the contact with aggressive cleaning agents and other chemicals
- Are compatible with foodstuff

For food factories and low loads
(joint even with the floor)



- 1 Concrete slab
- 2 Compression profile
- 3 Backing rod
- 4 [®] joint sealing
- 5 Sikafloor[®] coating

Sika Solution

- Sikaflex[®] Floor
1-component non-sag sealant
- High mechanical resistance
 - Cures completely bubble-free

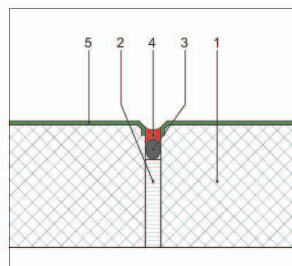
Key benefits

- The high mechanical and proven resistance of this sealant ensure a long service life even if exposed to intensive cleaning cycles and aggressive cleaning agents.
- The defect-free curing leads to a very robust and difficult to infringe sealant. The floor stays tight even under heavy loads. Hence, the maintenance costs are lower than with other sealants.

Approvals & standards

- ISO 11600 F 12.5 E
- EN 15651, part 4 12.5 E

For traffic areas and high loads
(recessed joint)



- 1 Concrete slab
- 2 Compression profile
- 3 Backing rod
- 4 Sikaflex[®] joint sealing
- 5 Sikafloor[®] coating

- Sikaflex[®] PRO-3
1-component non-sag sealant

- 25% movement capability
- High tear and tear propagation resistance
- High stability against a great variety of chemicals
- Cures completely bubble-free

Key benefits

- Due to the high movement capability the sealant is able to absorb higher stresses than common floor joint sealants. This significantly reduces the risk of failures and thus reduces maintenance costs as well.
- The excellent tear propagation resistance allows joints to withstand severe mechanical loads even after cuts without any further damages. Hence, the joint's longevity and durability is improved. Costs for maintenance and renovation will be reduced.

Approvals & standards

- ISO 11600 25 HM
- EN 15651, part 4 25 HM CC
- ISEGA approval for foodstuff compatibility
- EC-1 Plus approved (very low emissions)
- CSM (Cleanroom Suitable Materials):
Very good resistance against mould and bacteria growth according to Fraunhofer IPA (ISO 846)



Sealing Solutions for Joints in Car Parks



General Description & Main Requirements

To define the right sealing solution for car park floors it is crucial to consider if it is an intermediate deck or a top deck. A top deck acts also as a roof. Therefore the requirements at the joint construction and the floor coating are much higher than at an intermediate deck without significant outdoor and sunlight exposure.

In car parks floor sealants must especially be able to:

- Resist traffic loads from cars and cleaning machines passing over
- Retain their properties in direct contact with oil and fuel spillages

Additionally, on top decks joints must:

- Be completely waterproof
- Be resistant against weathering
- Accommodate large movements of individual building elements

Sika Solution

Sikaflex® PRO-3
1-component non-sag sealant

- 25% movement capability
- High resistance against fuel, oil and road salts
- Trafficable
- Good weatherability

Key benefits

- For car parks trafficable joints are of great importance. Especially in areas frequented by pedestrians flat surfaces are a must. The excellent mechanical properties allow a surface flush joint without any trade-offs on durability.
- The proven resistance of this sealant against fuel and oil spillage as well as road salts ensure a long service life.

Approvals/standards

- ISO 11600 25 HM, EN 15651, part 4 25 HM CC
- Resistance against Diesel & Jet fuel – DIBT guidelines
- EC-1 Plus approved (very low emissions)



Sikaflex® 1A

1-component polyurethane elastomeric adhesive / sealant capable of + 35% joint movement

- Resistant for jet fuel and salt water
- Suitable for contact with drinking water
- Good resistant to micro-organisms

Key benefits

- Easy and economical in use with eliminate time, effort, and equipment for mixing filling cartridge, pre-heating and cleaning of equipment.
- Suitable for vertical and horizontal joints
- Outstanding aging and weathering properties.

Approvals/standards

- Sika Flex 1A has been tested as per US EPA Method 24- meets federal specification TT-S00230C Type II Class A- meets ASTM - C920 Type - S Grade N.S, Class 35, Use T, NT, O, M, G, I. - Canadian standard CAN/CGSB 19.13-M87 - VOC content <50 g/L

THE UNIVERSAL CONSTRUCTION SEALANT



SikaFlex Construction +

General Description & Main Requirements

- In Facades joint dimensions and shapes are subjected to changes due to thermal expansion and contraction of the building units, the corresponding movements must be accommodated by the sealant in order to protect the inner parts of the building against environmental influences, the movements are either due to the size of the single building units (e.g. pre-cast concrete elements or the thermal expansion coefficient of different building materials and temperature variations).

Facade sealants must specially be able to:

- Absorb all types of movements and therefore ensure tight and durable joints.
- weather- and ageing resistance.
- High UV resistance.

Sika Solution :

Sikaflex construction +

- 1-part, moisture curing, elastic joint sealant.
- Movement capability of ± 35 (ASTM C719).
- Very good weathering- and ageing resistance.

Key Benefits :

- suitable for movement and connection joints in facades.
- Bubble-free curing.
- Easy to smooth and very good workability.
- Good adhesion to many substrates.
- Solvent free and odourless.
- Low stress to the substrate.

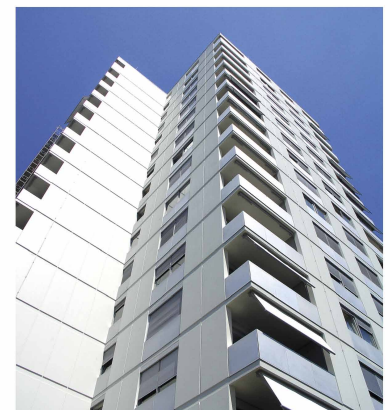
Approvals/ Standards:

- Conforms to ASTM C920 class 35
- Movement capability of ± 35 (ASTM C719).
- Conforms to EN15651-1 F EXT-INT CC 25 HM
- Conforms to ISO 11600 F 25 HM
- EMICODE EC 1PLUS R, very low emission

Specific Ratings

LEED® EQc 4.1	SCAQMD, Rule 1168	BAAQMD, Reg. 8, Rule 51
passes	passes	passes

- Sikaflex Construction + has been tested as per US EPA Method 24.
Result: VOC Content < 50 g/L



Sealing Solutions for Specialty Joints in Containment Bunds and Petrol Stations



General Description & Main Requirements

Proper joint sealants help to protect the environment, especially the ground water against contamination in areas for the storage and handling of aggressive chemicals and water polluting liquids, such as:

- Petrol stations
- Storage areas in the chemical industry
- Containment bunds
- Barrel stores etc.

The main requirements for a joint sealant in such applications are:

- Fuel and oil resistance
- High resistance against various other chemicals
- High mechanical resistance
- Conformance to legal requirements and governmental regulations

Sika Solution

Sikaflex® Tank N
1-component non-sag sealant

- Good tear resistance
- 25% movement capability
- High resistance against fuel, oil, hydrocarbons and other chemicals
- Bubble free curing

Key benefits

- Unlike most joint sealants for these applications **Sikaflex® Tank N** is a ready to use 1-component product. This means mixing errors that may lead to faulty installation with severe consequences regarding soil and groundwater pollution do not occur. In addition one component products allow a much faster application and produce less waste.
- Hydrocarbons are frequently used in various industries and sealants surviving hydrocarbon exposure are in great demand. **Sikaflex® Tank N** is optimized to resist such chemicals and provides the necessary security against environmental contamination.

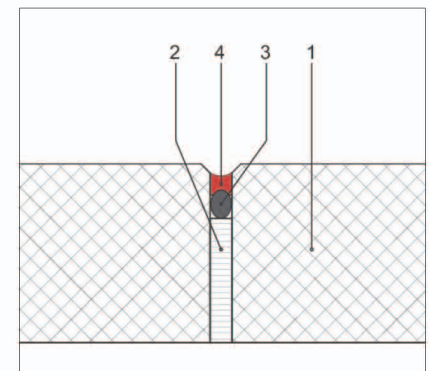
Approvals & standards

- European Technical Approval for joint-sealing systems in areas for the storage, filling and handling of water polluting liquids (ETA-09/0272)



Construction Details

For connection joints between concrete slabs



- 1 Concrete slab
- 2 Compression profile
- 3 Backing rod
- 4 **Sikaflex® Tank N**

Sealing Solutions for Specialty Joints in Sewage Treatment Plants



General Description & Main Requirements

Sealants used in sewage treatment plants have to survive extremely harsh conditions and thus must meet very demanding requirements. Only sealants specifically designed for this environment are suitable.

Sika Solution



Sikaflex® PRO-3

1-component non-sag sealant

- High resistance against waste water and waste water treatment chemicals
- Excellent adhesion under permanent water immersion
- Resistance against microbiological attack
- Resistance against continuous high water pressure

Key benefits

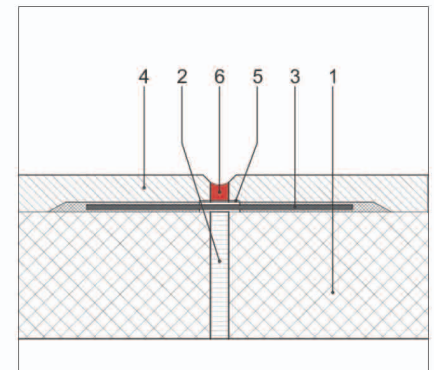
- Sikaflex® PRO-3 provides durable adhesion and longevity even under permanent water immersion and high water pressure. In addition the sealant is virtually not affected by residential waste water and microorganisms. This durable solution reduces down times of sewage treatment plants.

Approvals & standards

- ISO 11600 25 HM, EN 15651, part 4 25 HM CC
- CSM: Very good resistance against mould and bacteria growth according to Fraunhofer IPA (ISO 846)
- Waste water resistance according to the DIBt guidelines (German approval body for construction products and types of construction)

Construction Details

For connection joints between concrete slabs with a high demand on tightness



- 1 Concrete slab
- 2 Compression profile
- 3 Sikadur® Combiflex® System
- 4 Sikagrout® or Sikadur® epoxy mortar
- 5 Separation layer with PE sheet membrane
- 6 Sikaflex® PRO-3

Sealing Solutions for Joints in Concrete Pavements



General Description & Main Requirements

To achieve a long-lasting high quality of road paving, suitable construction materials including high-performance joint sealants (e.g. for road pavements and bridges) are key.

The main requirements for a highway joint sealant are:

- High movement capability for extremely high and low temperature conditions
- Durability under all weather conditions to minimize maintenance costs

Sika Solution

Sikasil®-728 SL

1-component self-levelling sealant

- +100/-50% movement capability
- Very low modulus
- Excellent UV resistance
- Resistant against road salt and fuel spillage

Key benefits

- Due to the high movement capability and very low modulus the sealant is able to absorb movements with extremely low stresses on the adhesion interfaces. This increases the longevity of the joints and secures the tightness.
- The sealant does not degrade by direct sun light exposure and can be used in hot and cold climates without significant impact on the mechanical properties.

Approvals & standards

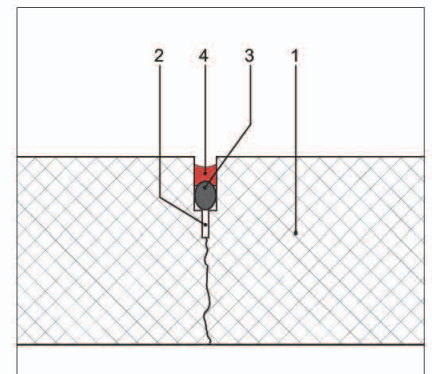
- Meets requirements of ASTM D-5893; ASTM C-920, Type S, Grade NS, Class 100/50, Use NT, T,M,G, A,O with an ultra low Shore Hardness; TT-S-00230C, Type II, Class A; TT-S-001543A, Class A.

Additional product

- Sikasil®-728 NS
Non-sag, one-component, ultra low modulus, elastomeric sealant

Construction Details

For connection joints between concrete slabs (recessed joint)



- 1 Concrete slab
- 2 Saw cut
- 3 Backing rod
- 4 Sikasil®-728 SL/NS



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