



# WATERPROOFING

## WATERPROOFING OF BASEMENT STRUCTURES WITH SIKA

RAISING STANDARDS IN BELOW GROUND WATERPROOFING

BUILDING TRUST



# WATERPROOFING OF BASEMENT STRUCTURE WITH SIKA

## DIFFERENT SYSTEMS AND STANDARDS

Sika provides a wide range of different waterproofing systems and solutions. The selection of the best system for a specific project depends on many factors, including the local ground conditions. Waterproofing is closely connected with the structural design and construction of a basement. Therefore it is important for the designer to integrate the selected waterproofing system into the structural design at an early stage.

## Grades of Waterproofing Protection (BS 8102:2009)

Degree of watertightness	Grade 1 - Some seepage and damp patches tolerable
	Grade 2 - No water penetration but moisture vapour tolerable
	Grade 3 - Dry environment
Exposure against	Percolating water
	Water under hydrostatic pressure
	Aggressive groundwater
	Structural settlement and ground movement
Quality control	Reinjectable compartments

## RIGID WATERPROOFING

### Waterproof Concrete and Joint Sealing

- Liquid Admixtures for reducing the rate at which water can penetrate into or through concrete and mortar. Reacts with the concrete mix to block pores and capillaries.
- Flexible soft PVC waterbars used to seal construction and expansion joints in concrete structures against the passage of water.
- Sealing profiles which swell in contact with water.
- High performance joint sealing systems for construction, expansion and connecting joints as well as cracks.
- One part moisture curing flexible elastomeric sealants.

## RIGID WATERPROOFING

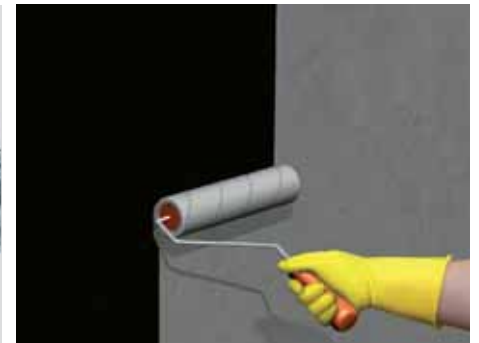
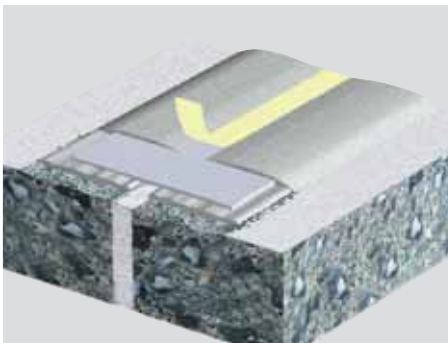
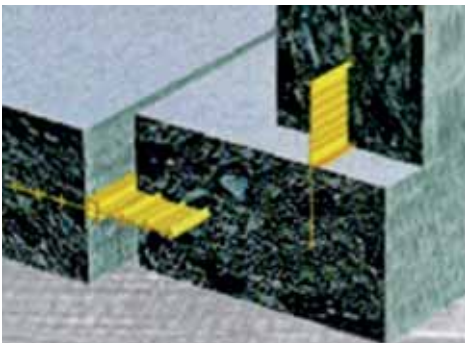
### Waterproof Rendering and Joint Sealing

- Two part polymer modified cementitious waterproof mortars.
- Flexible soft PVC waterbars used to seal construction and expansion joints in concrete structures against the passage of water.
- Sealing profiles which swell in contact with water.
- High performance joint sealing systems for construction, expansion and connecting joints as well as cracks.
- One part moisture curing flexible elastomeric sealants.
- Ready to use waterproofing compounds to rapidly seal water infiltrations.

## MEMBRANE WATERPROOFING

### Liquid Applied Membrane

- Spray applied, two part polymer modified bitumen emulsion providing seamless waterproofing.
- Water based hand applied flexible bitumen emulsion. May also be used for making waterproof screeds, renders and fillets.
- Liquid applied bitumen coating damp proof course and waterproof membrane.





# RAISING STANDARDS IN BELOW GROUND WATERPROOFING

## GROUND CONDITIONS

The exposure of the basement structure to water can be in three different categories:

- Damp soil contact (soil of low water permeability)
- Percolating water (water simply percolating by gravity through permeable soil)
- Groundwater under hydrostatic pressure (in permeable soil).

- Sika's nearly 100 years in the waterproofing business
- The only full range system provider
- Complete solutions including design support and ancillary materials
- Full application training and on-site support
- Faster effective application with increased site productivity
- Proven products and application techniques
- All relevant international and national approvals and standards

## MEMBRANE WATERPROOFING

### Waterproof Sheet Membranes

- Needle-punched thermally locked Geosynthetic Clay Liner. Self healing and damage resistant on site. Fully bonds to poured concrete.
- Self adhesive polymer modified bitumen sheet membrane. Fully bonded to the substrate.

## FLEXIBLE WATERPROOFING

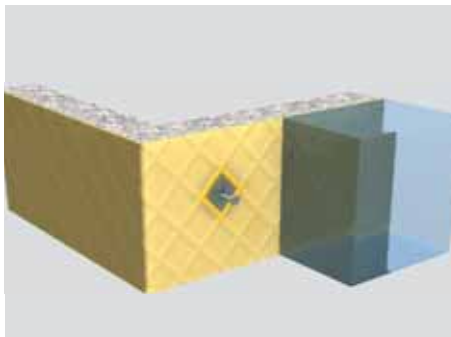
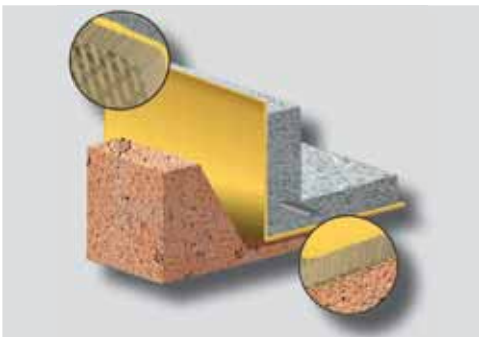
### Waterproof Sheet Membranes

- Flexible homogeneous PVC sheet waterproofing membranes with a signal layer. Can be compartmentalised using PVC Waterbars welded to the membrane.
- Flexible soft PVC waterbars used to seal construction and expansion joints in concrete structures against the passage of water.
- High performance joint sealing systems for construction, expansion and connecting joints as well as cracks.
- Flexible ready to use bitumen resistant PVC waterproofing and sealing tapes used to connect PVC waterproofing membranes.
- SikaProof A, a fully and permanently bonded FPO membrane that incorporates a compartmentalised sealant grid.

## SPECIALITIES

### Injections

- Low viscosity, fast foaming, solvent free water reactive polyurethane foam injection resins. Cure to form a dense flexible elastic foam with a fine cellular structure. Applied by injection pumps and injection packers with one way valves. May be used to inject PVC Compartmental waterproofing systems .



# WATERPROOFING OF BASEMENTS

Admixtures	<b>Sika-1'</b> Waterproofing admixture for concrete & mortar	Liquid admixture that reduces the rate at which water can penetrate into or through concrete and mortar.
	<b>Sika WT-200 P</b>	Water resisting and crystalline waterproofing concrete admixture.
	<b>Sika ViscoCrete (SCC)</b> Ultra-high range water-reducing	SCC (self-compacting concrete) admixture technology with high-range water reduction for waterproof concrete.
Jointing Systems	<b>Sika Waterbars</b> Elastic joint sealing system	PVC and FPO joint waterstops for the sealing of both movement and construction joints, plus producing watertight compartments with Sikaplan sheet membranes.
	<b>Sikadur-Combiflex SG</b> Elastic joint sealing system	Movement and construction joint sealing, plus crack sealing system consisting of flexible membrane strips and epoxy adhesives.
	<b>Sika Dilatec</b> Elastic joint sealing system	Joint sealing and termination detailing systems consisting of PVC- based membrane strips and epoxy adhesive.
	<b>SikaSwell</b> Swelling joint sealing profiles	Hydrophilic swelling joint profiles for the sealing of construction joints.
Membrane Waterproofing	<b>SikaProof Bentonite</b>	A natural sodium bentonite below ground waterproofing system. It is ideally suited to conventional construction waterproofing applications. It is rugged and durable, with self healing properties if ripped or punctured. BRANZ Appraised.
	<b>Sika BlackSeal SB, Sika BlackSeal Elastic, Sika Blackseal Plus (NZ)</b>	Bitumen based emulsions for the waterproofing of retaining walls, cellars and basements, water retaining structures and foundations. SikaProof SB, BRANZ Appraised.
Flexible Waterproofing	<b>Sikaplan WP</b> Flexible sheet membranes	Sheet waterproofing membranes based on PVC with yellow signal top layers, available in a range of different thicknesses.
	<b>SikaProof A</b>	Fully bonded FPO sheet membrane waterproofing system for basement and other below ground structures
Injection	<b>SikaInjection</b>	Solutions for remedial waterproofing of leaking concrete, joints and membranes including compartment systems.
Mortars	<b>Sika MonoTop, SikaTop and EpoCem</b> slurry coats and waterproofing renderings	Polymer or epoxy modified cementitious slurry coatings or waterproofing coatings and improving the concrete surface resistance.

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



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