

WATERPROOFING WATERPROOFING OF STRUCTURES WITH SIKA® SELECTION GUIDE

WATERPROOFING OF STRUCTURES WITH SIKA® - SELECTION GUIDE

Basements

“Basements” refers to all parts of a building which are situated below ground level. These sections of the structure, that are in physical contact with the ground, can be divided into three: basement floor slabs (horizontal waterproofing), basement walls (vertical waterproofing) and in certain cases, basement roof slabs (horizontal waterproofing for the soil covered roof).

Watertight Basements

The primary purpose of below ground waterproofing is to prevent the ingress of water into the interior spaces of the basement. Additionally, moisture vapour penetration into and through the porous structure of the basement structure must also be stopped. A secondary purpose is frequently the protection of the structure itself against groundwater and corrosive pollutants (such as chlorides and sulphates), to preserve its structural integrity.

Ground Conditions

There are three types of water ingress that a basement can be exposed to damp soil contact (soil of low water permeability), percolating water (water simply percolating by gravity through permeable soil) and groundwater under hydrostatic pressure (in permeable soil).

RIGID WATERPROOFING

Waterproof Concrete and Joint Sealing

Sika ViscoCrete SCC technology and **Sika-1*** capillary pore blocking technology.

SikaWaterbars, **SikaSwell**, **Sikadur-Combiflex SG** and **Sikaflex** sealants are used for watertight joints.

RIGID WATERPROOFING

Waterproof Rendering and Joint Sealing

SikaTop Seal-107 DRYSEAL and **SikaTop 144 Pond & Trough** renderings to produce waterproof linings.

SikaWaterbars, **SikaSwell**, **Sikadur-Combiflex SG** and **Sikaflex** sealants are used for watertight joints.

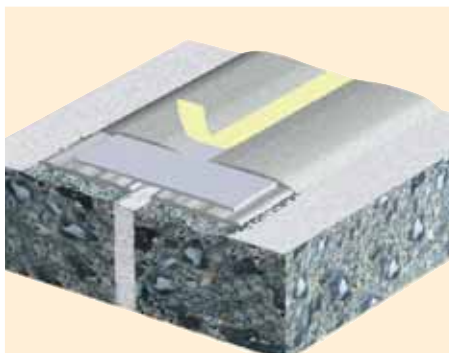
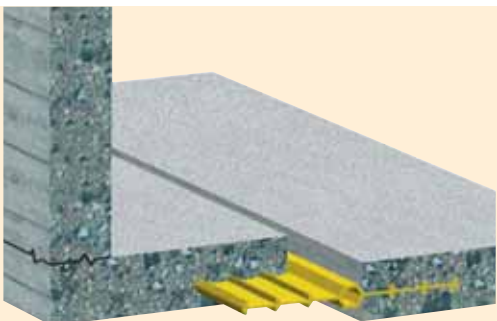
Sikaplug and **Sika 4a** to create fast setting waterproofing mortars and pastes.

ROOFING WATERPROOFING

Waterproofing Roof Solutions

Sarnafil PVC roofing systems incorporate heat-welded membrane sheets. The variety of membrane types means that there is a Sarnafil solution for virtually all re-roofing situations.

Sarnafil®



Roofing

Sika provides many solutions for your roofing designs. We have two main roofing products, **SikaRoof MTC** and **Sika Sarnafil PVC** membranes. Sika also offers solutions for Pedestrian, Traffic and Garden Roof systems.

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 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.

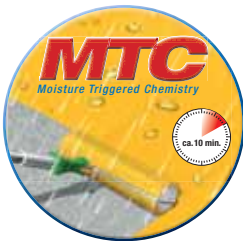
Over 100 years waterproofing experience

- Sika has over 100 yrs in the waterproofing business
- We are 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

ROOFING WATERPROOFING

Liquid Applied Membrane

SikaRoof MTC Systems comprise **Sikalastic** liquid-applied membranes that cure to provide completely seamless waterproof protection. Their liquid application means that they can be easily applied to all complex detail areas.



MEMBRANE WATERPROOFING

Waterproof Sheet Membranes

SikaProof A, a fully and permanently bonded FPO membrane that incorporates a compartmentalised sealant grid.

SikaProof Bentonite is a needle-punched thermally locked Geosynthetic Clay Liner used to waterproof below ground concrete structures. It can be installed in almost any weather, is self healing if ripped or punctured, and will swell into and seal cracks that form in concrete.

SikaPlan PVC, a homogeneous sheet waterproofing membrane that can be installed on wet substrates. It can be compartmentalised using **Sika PVC Waterbars**.

MEMBRANE WATERPROOFING

Liquid Applied Membranes

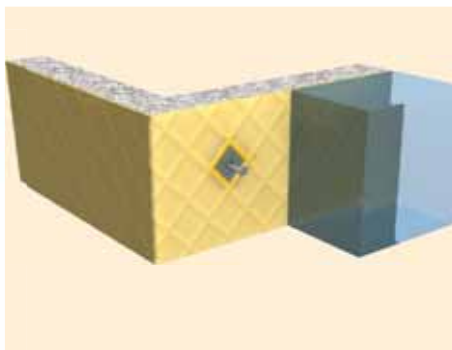
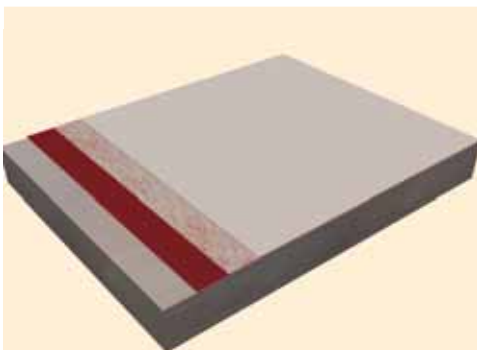
Sika has several liquid applied membrane options.

Sika BlackSeal Elastic, a water based, liquid applied external basement membrane. Can be mixed with sand and cement to create waterproof screeds and mortars.

Sika BlackSeal SB, a spray applied two-part polymer modified bitumen emulsion which provides fast seamless waterproofing.

Sika Blackseal Plus (NZ), a liquid applied bitumen waterproofing membrane for use as a damp-proof course and waterproofing membrane.

Sika Damp Stop, a two part waterbased epoxy coating for internal waterproofing of concrete and masonry walls and floors.



SIKA WATERPROOFING PRODUCTS

Liquid Membranes	Sika BlackSeal SB, Sika BlackSeal Elastic, Sika Blackseal Plus (NZ)	Bitumen based emulsions for the waterproofing of retaining walls, cellars and basements, water retaining structures and foundations Sika BlackSeal SB, BRANZ Appraised , Appraisal No. 770 [2012]	
Sheet Membranes	SikaProof Bentonite	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 , Appraisal No. 612 [2008]	
	SikaProof A	Fully bonded FPO sheet membrane waterproofing system for basement and other below ground structures	
	SikaPlan PVC Sheet waterproofing membrane system	A homogeneous sheet waterproofing membrane that can be installed on wet substrates and can be compartmentalised using Sika PVC Waterbars	
Internal Waterproofing	Sika Damp Stop	An epoxy coating for internal waterproofing of concrete and masonry walls and floors.	
Admixtures	Sika-1* Waterproofing admixture for concrete & mortar Sika ViscoCrete (SCC) Ultra-high range water-reducers Sika WT-200 P	Liquid admixture that reduces the rate at which water can penetrate into or through concrete and mortar SCC (self-compacting concrete) admixture technology with high-range water reduction for waterproof concrete Water resisting and crystalline waterproofing concrete admixture.	
	Jointing Systems	Sika PVC Waterbars PVC joint sealing system	PVC joint waterstops for the sealing of both movement and construction joints, plus producing watertight compartments with Sika membranes
		Sikadur-Combiflex SG Elastic joint sealing system	Movement and construction joint sealing, plus crack sealing system consisting of flexible membrane strips and epoxy adhesives
SikaSwell Swelling joint sealing profiles SikaFuko Swell-1 Swelling joint sealing profiles		Hydrophilic swelling joint profiles for the sealing of construction joints Reinjectable hydrophilic swelling joint profiles for the sealing of construction joints	
Sealing Mortars	SikaTop Seal-107, and SikaTop 144 waterproofing renderings	Polymer modified cementitious slurry coatings or waterproofing coatings	
Roofing	Sarnafil S327 Membrane	A UV-resistant, polyester scrim reinforced membrane with lacquer coating to resist staining from airborne dirt and pollutants. It has a high tensile strength and excellent mechanical properties. S327 is suitable for mechanically fastened exposed roof systems	
	Sarnafil G410 Membrane	A UV-resistant, fibreglass reinforced membrane with lacquer coating to resist staining from airborne dirt and pollutants. It has good dimensional stability and high elongation at break. G410 is suitable for fully adhered exposed roof systems	
	Sarnafil G476 Membrane	A non-UV resistant, fibreglass reinforced membrane with single layer. It is root resistant and has good elongation at break. G476 is suitable for loosely laid protected roof systems, particularly roof gardens	
	SikaRoof MTC	SikaRoof MTC (Moisture Triggered Chemistry) Systems incorporate a unique technology that allows the material to use atmospheric moisture to trigger the curing process. This means the waterproof membranes are capable of curing in a wide range of conditions including extreme temperature ranges and humidity variations	
Flexible Waterproofing	Sikaplan WP	Sheet waterproofing membranes based on PVC with yellow single top layer, available in a range of different thicknesses	
Injection	Sika Injection	Solutions for remedial waterproofing of leaking concrete, joints and membranes including compartment systems	
Mortars	Sika MonoTop, SikaTop and EpoCem slurry coats wanting waterproofing renderings	Polymer or epoxy modified cementitious slurry coatings for 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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