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Sika®-1 Structural Waterproofing System JOINTS Detailing Sheet No 1

The accompanying sketches are indicative of various types of joints.

WALL AND FLOOR JOINTS

The correct detailing of lap joints and floor/wall joints is essential for the performance of the **Sika®-1** waterproofing system. Laps should be a minimum of 100 mm in length. It is preferable that the **SikaDur® Combiflex®** strip is used at the floor/wall joint instead of a corner fillet. See also Installation Guide and Technical Data Sheet.

WATERTIGHT JOINTS

Sika®-1 waterproofing system is a rigid membrane and will not accommodate movement in a structure to which it is applied. Waterproofing should be installed as late as possible within any building programme to ensure that full structural loading, cracking and settlement will have occurred before the waterproofing is applied. All movement joints and construction joints, including all floor/wall interfaces, must be protected using the **SikaDur® Combiflex®** system incorporated within the **Sika®-1** waterproofing system, unless stated otherwise.

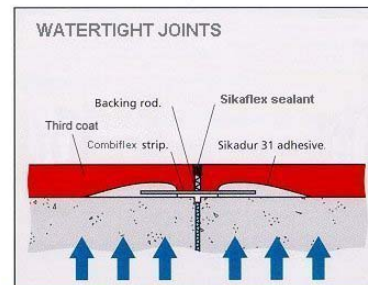
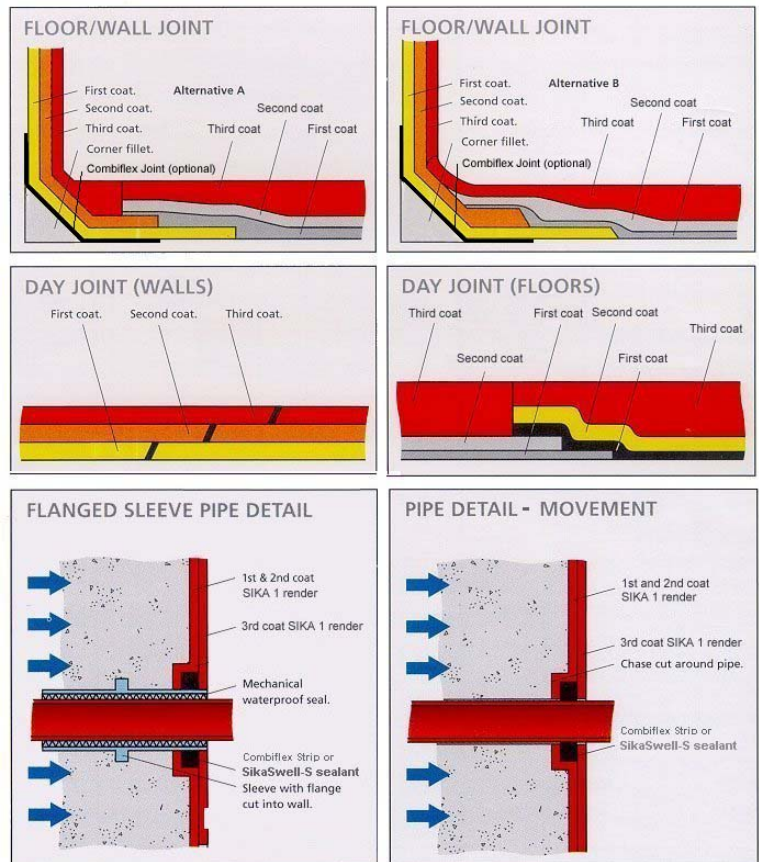
Designated movement joints and any live cracks, sealed with the **SikaDur® Combiflex®** system, should be reflected through the **Sika®-1** waterproofing system and sealed with the appropriate **Sikaflex®** sealant. The anticipated movement and exposure of any such movement joint should be clearly understood prior to defining joint dimension and selection of the appropriate **Sikaflex®** surface joint sealant.

Sealant selection should be according to the principles of ISO 11600 and BS 6213:2000 and when necessary water industry approvals.

The materials suitable for this work are the one-part **Sikaflex®** sealants or the **SikaDur® Combiflex®** strip system. To bond **Sika®-1** structural waterproofing system to sealants, blind sealant surface with kiln dried quartz sand (0.4-0.7 mm) granulometry.

SEALING OF PIPES AND DUCTS

Penetrating pipe entries must be firmly anchored with only a small amount of movement anticipated from expansion, contraction, vibration or distortion. Wherever possible a flanged sleeve should be first set in the structure through which the service pipe or cables are subsequently routed. In addition a chase should be formed in the structure around the pipe or sleeve into which the waterproofing render is carried and the sealant subsequently applied. A chase fully lined with **Sika®-1** waterproofing system is required for all sealant work around pipes or sleeves with an appropriate primer applied to the sides of the chase. The principles of pipe sealing are the same as for pipe movement joints, the main difference being the requirement for the sealant to adhere to a metal or plastic pipe or sleeve. This requires careful selection of the appropriate sealant and careful cleaning and priming.





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Sika®-1 Structural Waterproofing System

FIXINGS Detailing Sheet No 2

It is essential that care should be taken if subsequent difficulties with fixings penetrating the **Sika®-1** waterproofing system are to be avoided. The ideal procedure ensures that the waterproofing is carried out prior to the installation of any fixings, mechanical and electrical equipment. In some situations pockets in the structure may be prelined with **SikaDur® 41** mortar to receive fixing bolts but it is often more convenient to adopt one of the methods detailed below.

INDIRECT FIXINGS

Use adjustable strut inserts set or bolted into the structure above threshold height, ie above the height of the **Sika®-1** waterproofing system.

LIGHTWEIGHT FIXINGS

Timber battens or pads may be bonded directly to the surface of the cured **Sika®-1** waterproofing system using **SikaDur® 31** epoxy adhesive or **Sikaflex® 11FC+** polyurethane adhesive/sealant. These will require temporary propping until the adhesive has cured.

HEAVY DUTY FIXINGS

The exact locations and design of all such fixings must be determined prior to commencement of work on site.

New Construction:- Preformed Pocket

At the identified locations pockets of at least 150 mm x 150 mm should be cut into the structure and filled with **SikaDur® 41** mortar during the progress of the works. Subsequent fixings into these pockets can be made although care must be taken to avoid drilling beyond the design depths ensuring that a minimum render cover of 20 mm is maintained behind each fixing.

Existing structure:- Postformed Pocket

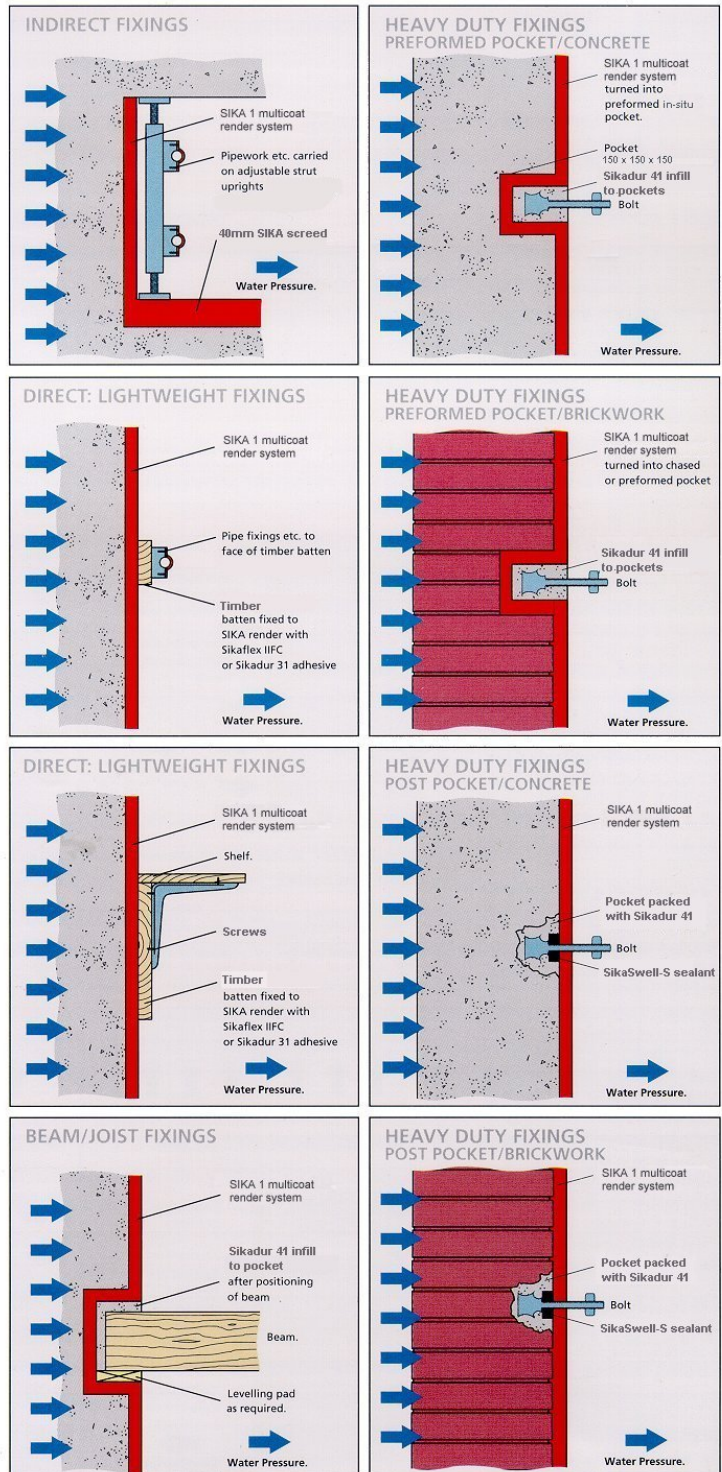
Breakout pockets to suit bolt loading requirements and infill pockets with **SikaDur® 41**. Provide a 20 mm x 20 mm groove around bolt for sealing with **SikaSwell®-S** sealant prior to the application of the **Sika®-1** waterproofing system.

Where pockets cannot be formed, use resin anchors and seal using **SikaSwell®-S** sealant around perimeter of fixing (20 mm x 20 mm) prior to the application of the **Sika®-1** waterproofing system.

Expanding bolts are not recommended as cracks may form in substrate causing a leakage path.

FLOOR FIXINGS

Fixings onto the floor may be detailed in a similar manner to fixings on walls. For postformed pocket fixing, if water pressure does not allow for such detailing a new concrete slab with pre-formed pockets should be considered over the **Sika®-1** floor screed or alternatively a watertight slab using **Sika® Watertight Concrete** (BBA Cert No 00/3672).

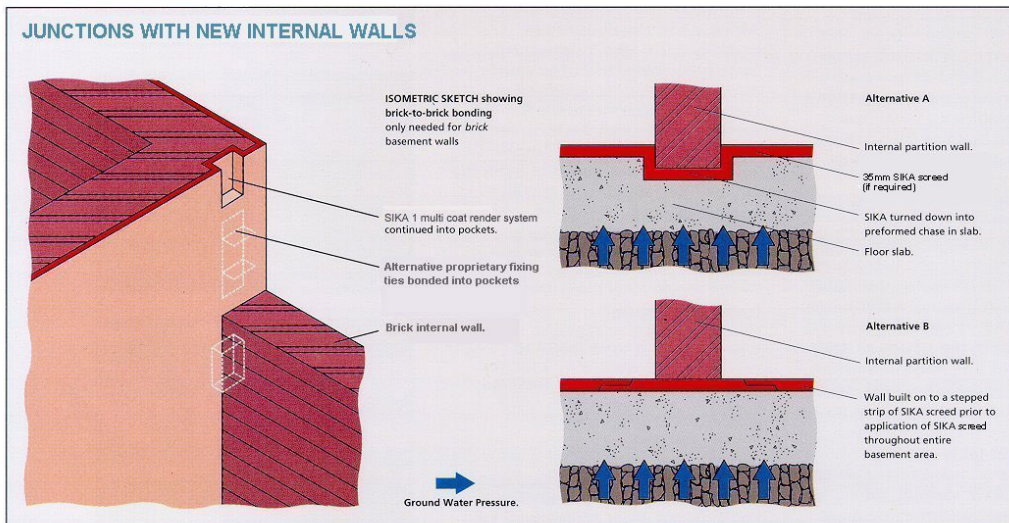
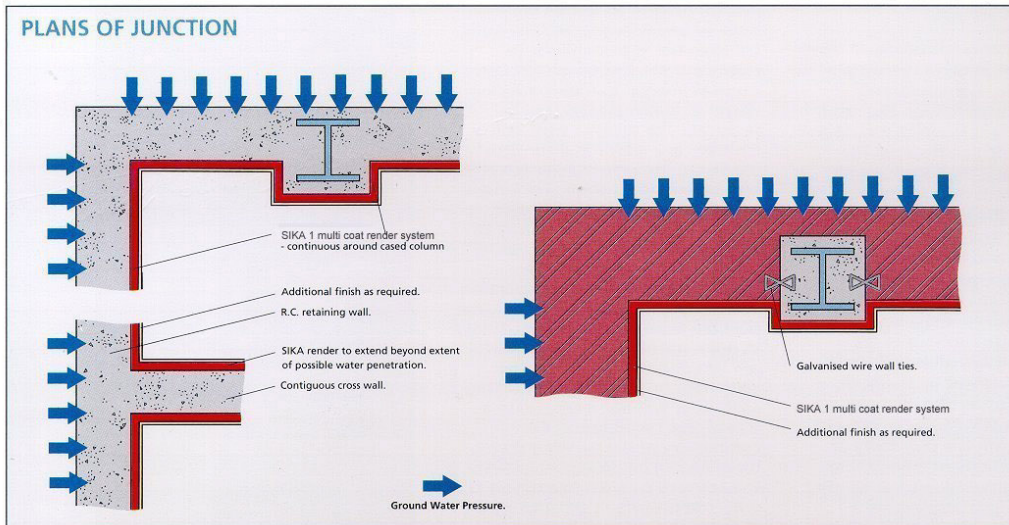
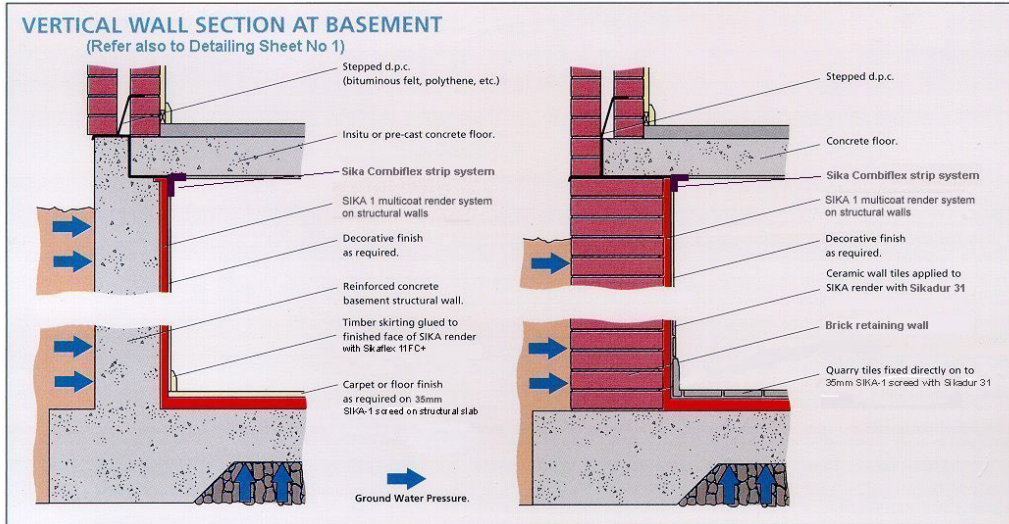




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Sika® -1 Structural Waterproofing System

GENERAL DETAILS Detailing Sheet No 3

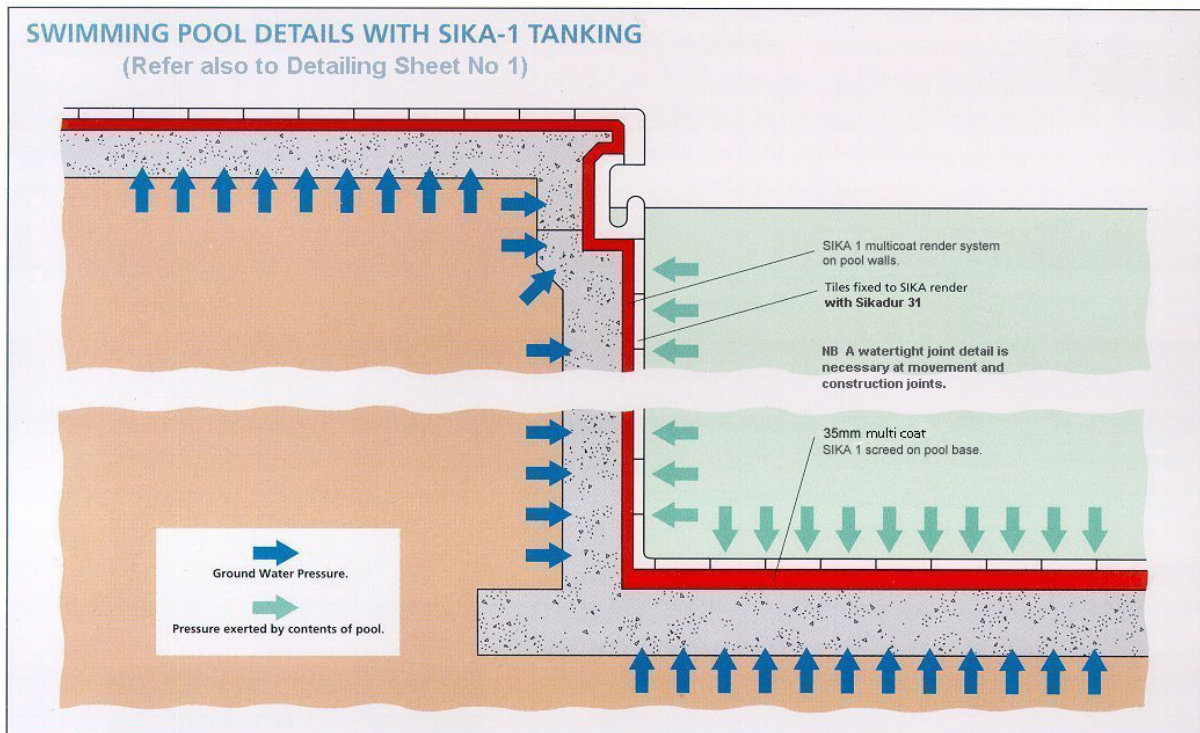
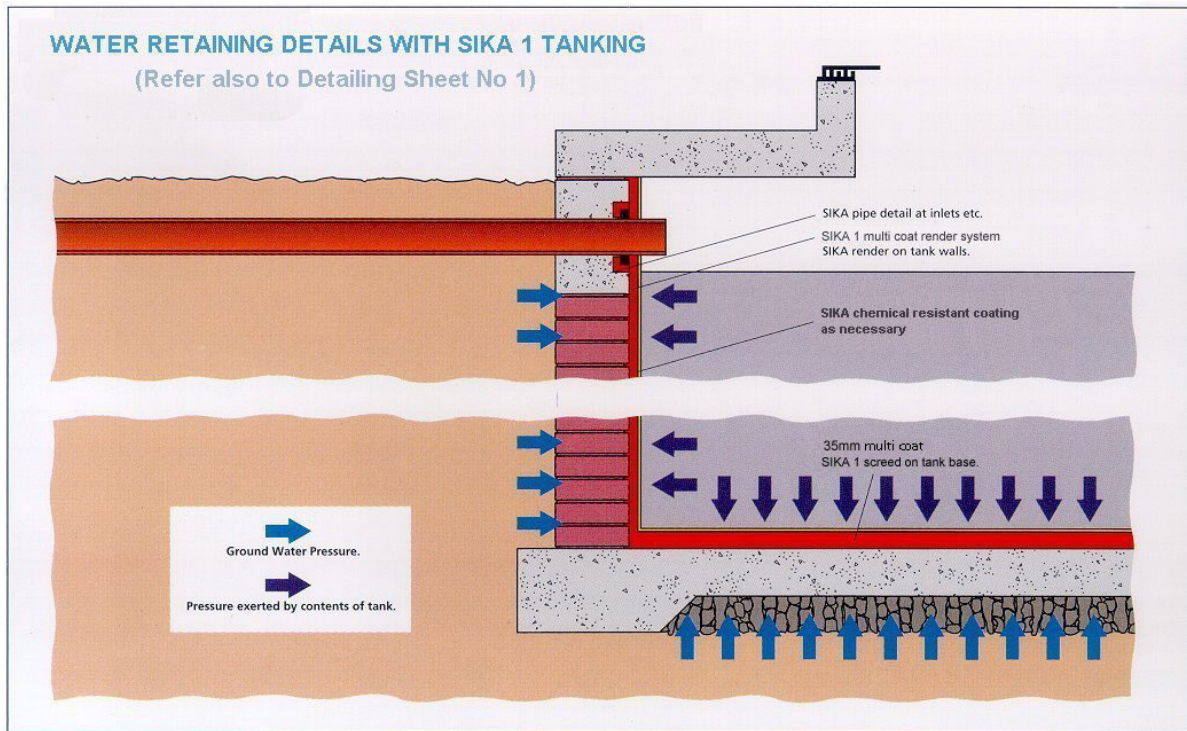




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Sika®-1 Structural Waterproofing System

WATER RETAINING STRUCTURES AND SWIMMING POOLS Detailing Sheet No 4





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Sika®-1 Structural Waterproofing System INSTALLATION GUIDE

GENERAL Walls and floors should be sufficiently sound and solid to accept preparation techniques and the waterproofing system. This should be determined by suitably qualified personnel. Reference should also be made to BS 8102:1990.

SURFACE PREPARATION EXISTING AND NEW CONSTRUCTION
Refer to BS 8102:1990 cl 11.2

WALLS/MASONRY/STONE:

All existing treatments such as plaster or paint shall be completely removed and the exposed surfaces roughened by 100% bush-hammering, grit/water blasting techniques, followed by washing down and brushing to ensure full removal of all loose material. Mortar joints should be sound and flush with masonry/stone.

Any defective mortar joint should be raked out to a depth of 12.0mm and repointed using **Sika®-1 Finishing Mortar** made up with clean water. Any recessed joints should be repointed flush with front face of masonry/stone.

WALLS/CONCRETE:

All laitance shall be removed to expose coarse aggregate by 100% bush-hammering or grit/waterblasting techniques. Alternatively, use **Sika® Rugasol® MH** Concrete Retarder, applied to the face of the shuttering followed by wire brushing and washing of concrete surfaces.

FLOORS/GENERAL:

All existing coverings such as tiles shall be removed and old adhesive cleaned off. The exposed floor shall then be prepared, followed by washing down and brushing to ensure full removal of all loose debris. (Floors of brick or stonework should be replaced or supplemented by a reinforced concrete floor - Refer to BS 8102:1990 cl 11.2.4),

FLOORS/CONCRETE:

All concrete floors shall be given an exposed aggregate finish, free of laitance, by raking with a light rake while still wet followed by wire brushing just prior to final set. It will be necessary to protect the prepared floor from dirt or contamination by other trades prior to the application of the **Sika®-1** waterproof screed. Alternatively, when hardened remove all laitance and expose coarse aggregate by 100% bush hammering or grit/waterblasting techniques..

APPLICATION **GENERAL**

Sika®-1 liquid is diluted (1:10 by volume) with plain clean water and mixed with **Sika®-1** prebatched mortars by volume. Care must be taken to prevent lumps forming. Immediately prior to application the substrate must be soaked with clean water however no standing water or puddles should be present. Mixing of the diluted **Sika®-1** admixture and **Sika®-1** prebatched mortars should be carried out using a forced action mixer or in a clean drum using a drill and paddle mixer. A tumble action mixer is NOT suitable

WALLS:

Sika®-1 Render Mortars (20mm thickness)

All rendering mixes are prepared using **Sika®-1** prebatched mortars and gauged with the 1:10 **Sika®-1** solution.

The **Sika®-1** multicoat render system shall be applied in three successive coats using **Sika®-1** prebatched mortars to a nominal overall thickness of 20 mm (3 coat system).

- 1st Day **First coat** – a **Sika®-1 Spritz and Bonding Coat Mortar** applied as a 6 mm coat by casting on vigorously over the complete wall surface as a mortar slurry.
- Second coat** – a **Sika®-1 Render Mortar** applied by trowel as a 6 mm mortar coat as soon as the first coat has stiffened sufficiently (typically 4-5 hours later), with a coved trowel used at internal corners. A splatter coat of **Sika®-1 Render Mortar**, gauged with plain clean water and mixed as a slurry, is then applied to serve as a key for the third coat.
- 2nd Day **Third coat** – a **Sika®-1 Finishing Mortar** applied by trowel as a 6 mm mortar coat, finished with a wooden float to achieve a closed surface with neat arrises.

FLOORS:

Sika®-1 Screed (35mm thickness)

All screed mixes are prepared using **Sika®-1** prebatched mortars and gauged with the 1:10 **Sika®-1** solution.

The **Sika®-1** bonded waterproof screed shall be applied in successive coats using **Sika®-1** prebatched mortars to a minimum thickness of 35 mm, each coat being properly keyed to the previous coat.

- 1st Day **First coat** – a **Sika®-1 Spritz and Bonding Coat Mortar** applied in sections by brush or broom as a nominal bonding slurry coat.
 - Second coat** – A **Sika®-1 Spritz and Bonding Coat Mortar** is then immediately applied at a plastic consistency by trowel, laid whilst the first coat is still wet and to a minimum overall thickness of 10mm as a bonding mortar.
 - 2nd Day **Third coat** - When hardened sufficiently to walk on apply a **Sika®-1 Spritz and Bonding Mortar** by brush or broom as a nominal bonding slurry for the third coat.
- A Sika®-1 Screeding Mortar** is prepared to a semi-dry consistency and is applied in a layer of 20 mm minimum thickness whilst the previous bonding slurry coat is still wet, tamp vigorously, until moisture rises to the surface and finished off with a wooden float to achieve a flat, closed surface. The surface texture should be as required by the final floor covering. (Note: 25mm is the minimum thickness if complying with BS 8204-1:2003. The floor profile and loading requirements may demand this thickness is increased.)

Corner Fillet – Use **Sika®-1** render mortar. Corner lap/fillet detail may be omitted if **Sikadur® Combiflex®** system is used at the wall/floor joint.

FORMATION OF LAP JOINTS (walls and floors):

When applying **Sika®-1** wall and floor mixes, successive coats will be lapped to obviate a continuous butt joint through the mortar. The joints between successive coats of render and screed at daywork joints must be stepped back to allow overlaps of about 100 mm between coats. Before continuing with the new work the lap will be prepared by brushing and priming with a slurry coat. The first two coats on the wall are continued over a corner fillet onto the floor surface. The first coat continued for 200 mm and the second coat for 100 mm along the floor. This lap detail is not necessary if using the **Sikadur® Combiflex®** system.

For general and special details see detailing sheets 1-4. *Note:* Read in conjunction with Product Data Sheet.

SULPHATE RESISTANCE

Sika®-1 prebatched mortars based on S.R.C must be used in soils of Class 2 as defined in BRE Digest 363.

CURING **GENERAL:**

Sika®-1 renders and screeds must be kept moist during the work period and for a minimum 7 day period after final application to stop drying out and reduce cracking. They should be prevented from being exposed to sudden changes in air temperature and relative humidities. Protect from frost at all times until cured. (Refer to BS 8102:1990 cl 11.4)

FINISHING PLASTERS:

The **Sika®-1** system can be overcoated with a cement based plaster finish such as **SikaMur Finishing Plaster** or Tarmac Limelight finish

Renovating Finish . Do not use a gypsum based plaster. Refer to plaster manufacturer for advice on suitability.



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Sika®-1 Structural Waterproofing System Architectural And Engineering Considerations

GENERAL

Owing to the specialist nature of this application all work should be carried out by a Sika® recommended contractor as stated in Agrément certificate 00/3761. Workmanship should comply with BS8000: Pt4: 1989 Code of Practice for waterproofing. Contact Sika Limited for contractors in your geographical area.

SUITABILITY

The Sika®-1 waterproofing system is a dense, cementitious waterproof lining which is appropriate as a primary waterproofing measure, as a remedial treatment, or as part of a general restoration or refurbishment. It is particularly suitable for structures which are subjected to hydrostatic pressure, liquid retaining structures, new basements, existing cellars, tunnels and subways, underground ducts, lift and inspection pits and swimming, leisure or feature pools. The system can be applied to a wet surface and against actual ingress of water even where there is considerable hydrostatic pressure when used in conjunction with Sika Waterstops and Waterplugs. Because the system is applied from inside the structure there is no need to provide any outside excavations or working space. The Sika®-1 system is based upon Sika pre-batched cement/aggregate mortar mixes modified with the special Sika®-1 waterproofing admixture, applied in multiple coats to the prepared surface in accordance with the Sika®-1 Product Data Sheet. It is usually applied by hand or in some situations by pneumatic spray.

SUBSTRATE PREPARATION

The surface to be rendered must be clean and free from all contaminants to achieve adequate adhesion. All surface laitence must be removed by 100% bush-hammering or similar techniques and all loose material around cracks removed. Brickwork or dense concrete blockwork laid in cementitious sound mortar normally provides a satisfactory substrate provided the surface and joints are strong and not delaminated. Rough textured blockwork, grooved or serrated bricks should require no more preparation other than thorough cleaning and wetting down. Normal and glazed bricks and fairfaced blockwork should be highly keyed by bush-hammering or similar to provide a clean, sound, rough surface which will also need washing followed by wetting down to prevent excess suction. Concrete needs preparation by bush-hammering/grit blasting whilst new concrete may be prepared by the application of a suitable surface retarder to the shutters and vigorous brushing of the concrete surface after stripping to remove all retarded cement paste and to expose the aggregate. Single skin brickwork and some types of igneous and sedimentary rocks and weak stonework are not suitable substrates for the Sika®-1 system. Fairfaced limestone masonry can be a satisfactory substrate when subjected to mechanical preparation and other stone can also provide sufficient adhesion although the very hard and very soft types eg granite (high density/low porosity) and sandstone (low density/high porosity) provide limited adhesion and the addition of a bonding agent and/or corrosion resistant reinforcing mesh is recommended.

Friable/weak surfaces should be stabilised using a corrosion resistant metal mesh secured to the substrate and followed by a minimum 12mm thick render based of Sika®-1 Render Mortar prior to the application of the full Sika®-1 three coat system.

STRUCTURE

Floors of brick, ash-concrete and stone flags will not be able to resist the tensile forces which may develop after waterproofing and they therefore should be lifted and replaced or over slabbed, under the guidance and design of a Structural Engineer. The structure and its elements must be capable of withstanding the developed water pressure and other anticipated loadings without cracking or delaminating (refer also to "Movement" below). Properly designed brick and concrete structures are usually suitable but care must be taken to ensure that the substrate is not cracked, weak or contaminated by oils or chemicals. Internal crosswalls must not penetrate the Sika®-1 Render at any junction without special provision to ensure the integrity of the waterproofing. Grooves to receive internal walls and slabs, where required, should be 40 mm nominal wider than the thickness of the wall and lined with Sika®-1 Render as for fixings.

MOVEMENT

The Sika®-1 waterproofing system requires a high standard of workmanship throughout and this is of particular importance at junctions in the structure. The system is of the same rigidity as concrete and sand/cement mortar and similarly requires the provision of special watertight movement joints to accommodate anticipated movement in the substrate. When consideration is being given to waterproofing an existing structure it is important to assess the condition of these structural elements and to determine that the structure can withstand the applied loads arising from the possible increase in head of water pressure resulting from the waterproofing process without deflection or movement other than at designated movement joints. Unless there is evidence that all movement has ceased, any cracks in the structure must be treated as movement joints to accommodate potential movement. Initial thermal structural movement and shrinkage in new concrete structures will normally have occurred by the time the waterproofing system is to be applied. Any "dead" cracks formed can be rendered. If, however, further cracks do subsequently occur, these can be repaired without difficulty before finishes are added. Watertight joints, which are capable of withstanding structural movement, can be made at "live" cracks in existing tanks and basements or at movement joints in new structures.

FINISHING, CURING, DECORATIVE FINISHES

FINISHING:

Walls and floors are normally finished with a wood float, the profile of the render following the existing line of the walls and the floor screed being laid flat or to falls within normal tolerances. The first two coats of render on the wall are continued through the corner and onto the floor surface as a cove to achieve a staggered overlap with the floor coats. Multi-coat Sika®-1 Renders are applied to a total nominal thickness of up to 20 mm, whilst on floors a

minimum bonded screed thickness of 35 mm to provide a base to receive floor coverings in accordance with BS 8204-1:2003 Pt1.

CURING:

Curing to complete the hydration process of the cement rich mixes used in the Sika®-1 system is generally necessary and especially in hot, dry or windy conditions when curing by covering with polythene sheet, wet hessian or water spraying for a period of up to seven days may be necessary. The curing process must never be accelerated by "drying out" and turning up heating systems. Some surface micro-crazing may occur in the finished top layer but this is not detrimental since the main underlying waterproofing layers of the render are designed to be protected and further cured by the top coat. Micro-crazing should not be misinterpreted as curing shrinkage, drying shrinkage, or substrate bond failure.

DECORATIVE FINISHES

The final surface of the wall render and floor screed is suitable for decoration or floor coverings. The wall render provides a fairfaced durable surface which needs no further protective finishes. However, when decorative finishes are required these can be applied directly to the surface of the exposed render provided they are vapour permeable and the adhesive used will not be affected by vapour or residual moisture. SikaMu® Finish lime based plaster is recommended for use with the Sika®-1 waterproofing system.

Other cement based finishing plasters may be used such as Tarmac Limelight Finish. Plasters based on gypsum are not recommended as they can absorb moisture. Reference should be made to the manufacturer as to the suitability of the finishing plaster for waterproofing.

Sika®-1 Render is not classed as vapour proof and surface finishes must be chosen with care. Where the wall render is required to be vapour proof, a Sika® epoxy based coating can be applied to the prepared surface of the render which can then become the base for direct application of a wide range of further finishes.

Walls recently waterproofed should not be papered or painted for at least six months after treatment other than with a water based emulsion paint which can be applied as soon as the internal surface is dry. Usually after four weeks (consult paint manufacturer).



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Sika®-1 Structural Waterproofing System Architectural And Engineering Considerations

CODES OF PRACTICE

The **Sika®-1** waterproofing system complies with the recommendations set out in Ciria Report 139 -1995 Water resisting basement construction – safeguarding new and existing basements against water and dampness and BS8102: 1990 Code of practice for protection of structures against water from the ground.

AGRÉMENT CERTIFICATE

The **Sika®-1** waterproofing system has been granted British Board of Agrément Certification Reference no 00/3761 dated August 1995. The BBA Certificate denotes that the System complies with the Building Regulations requirements for a waterproofing/tanking system to walls and floors. The BBA test and certificate specifically states as follows:

Water Resistance

"The **Sika®-1** waterproofing system provides an effective barrier to the transmission of liquid water. The water vapour resistance of a 3 coat **Sika®-1** rendering is 19MNSg⁻¹."

Durability

"Under normal conditions of use the **Sika®-1** waterproofing system will provide an effective barrier to the transmission of liquid water for the life of the building in which it is installed"

NOMINAL THICKNESSES

External above ground render 12mm (2 coats)
Internal below ground wall rendering - 20 mm (3 coats) (BS 8102:1990 cl 11.3).
26mm (4 coats).
Bonded Floor screed 35 mm. (BS 8102:1990 cl 11.3 and BS 8204-1:2003 cl 6.4.3a)

SEALING INFILTRATION

Points of moderate water infiltration should be sealed using **Sika®** special quick setting waterproofing and leak plugging compounds such as **Sika® 2, 3, 4** and **4a** prior to the application of the normal **Sika®-1** render. The sealing of severe infiltration is achieved by first controlling the leakage to a number of selected points. A short length of tube is inserted to relieve pressure within the surrounding area and is sealed in place with **Sika® 4a**. The pipe is removed and the hole plugged once the 2nd or 3rd render coat has finally set. A final finishing render coat is then applied over the plugged hole.

FIXINGS

A variety of fixings are possible onto the surface of a **Sika®-1** wall render or floor screed. Lightweight fixings can be attached to battens bonded with a **Sikadur® 31** epoxy adhesive or **Sikaflex® 11FC+** polyurethane sealant to the exposed render surface. Alternatively, struts fixed from floor to ceiling may be used which eliminate any direct attachment to the surface of the **Sika®-1** render. Heavy duty fixings will require pre-formed pockets approximately 150 mm square and 150 mm deep to be either formed during construction or cut into the wall subsequently and into which the **Sika®-1** render is carried to maintain a continuous waterproof tank over the main structure. These lined pockets will be filled **Sikadur® 41** to receive rag-bolt fixings which can be fixed or grouted into place afterwards.

PENETRATION BY SERVICES

Pipework, ducts and other services should be routed to minimise the number of points where these penetrate a **Sika®-1** rendered structure. Service pipes and ducts passing through the **Sika®-1** render will be caulked with **SikaSwell®-S** sealant and allowance should be made for a 50 mm nominal groove to be formed in the structure around each pipe to receive the sealant prior to the application of the 3rd coat. Alternatively the **Sikadur® Combiflex®** system may be used. All wires and cables should be routed through sealed ducts.

SULPHATE RESISTANCE

A conventional **Sika®-1** waterproofing system based on Ordinary Portland Cement may be used in soils of Class 1 as defined in BRE Digest 363 "Concrete in Sulphate Bearing Soils and Groundwaters" – June 1981. A Sika-1 render based on Sulphate Resisting Portland Cement may be used in soils of Class 2.

CONDENSATION / VENTILATION

Sika®-1 render is waterproof but slightly vapour permeable. It is a dense render and when applied to a cold wet substrate, depending on the differential temperature between the substrate and the temperature and relative humidity of the internal atmosphere, condensation may form on the surface of the render. Arrangements should always be made, therefore, to minimise subsequent condensation by ensuring adequate ventilation to control humidity. Where sufficient natural ventilation cannot be provided, particularly in condensation prone areas eg bathrooms and kitchens, suitable mechanical ventilation controlled by a humidistat should be installed together with the application of compatible thermal insulating materials as part of the internal finishes. Heating a waterproofed basement that does not have sufficient ventilation may only serve to exacerbate any condensation problem.

MAINTENANCE AND REPAIR

A finished **Sika®-1** waterproofing system provides a durable, non-dusting surface which is maintenance free. However, should there be subsequent movement of the structure causing cracking and local failure of the membrane, repairs can readily be made by cutting back and making good the affected areas of **Sika®-1** render. All this may be done without costly excavation and points of leakage may be detected immediately and quickly remedied.

The correct installation of the **Sika®-1** waterproofing system is the responsibility of the recommended contractor.

In the event of the **Sika®-1** waterproofing system cracking, debonding, leaking etc, the work shall be rectified by the contractor.



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Sika®-1

Structural Waterproofing System

BILL OF QUANTITIES

ITEM DESCRIPTION	QTY	UNIT	RATE £	AMOUNT £
<ul style="list-style-type: none"> Assessment of wall/floor condition (including consultants report) 		Daily		
WALLS <i>Preparatory Works</i> <ul style="list-style-type: none"> Prepare masonry/concrete walls by removal of existing treatments, 100% roughening and washing etc Over 300 mm wide Not exceeding 300 mm wide Raking out friable masonry mortar joints and repointing with Sika Finishing Mortar Masonry mortar joints flush pointed with Sika Finishing Mortar Pre-levelling walls filling depressions where necessary with Sika Finishing Mortar Pre-wetting walls 		m ² m ² m m m ² m ²		
WATERPROOF RENDERING WORKS Waterproof Sika®-1 rendering: three coats (20mm thickness); First coat: Spritz and Bonding Coat Mortar with Sika®-1 solution (6mm); Second coat: Render mortar with Sika®-1 solution plus splatter coat (6mm); Third coat: Finishing mortar with Sika®-1 solution (6mm);				
<ul style="list-style-type: none"> 20 mm nominal thickness waterproof render to prepared brick or concrete walls:- Over 300 mm wide Not exceeding 300 mm wide 		m ² m ²		
<ul style="list-style-type: none"> Extra over for plumbing and conduit diversions External angle Wall/floor joint - corner fillet Wall/floor joint – Sikadur® Combiflex® joint system Wall/ceiling joint – Sikadur® Combiflex® joint system Form watertight joint as specified Line preformed pockets with Sika®-1 multicoat structural waterproofing system Form Sika®-1 render and provide SikaSwell®-S sealant around pipe or duct entry:- Form Sika®-1 render and provide Sikadur® Combiflex® system around pipe or duct entry:- Less than 50 mm diameter Over 50 mm not exceeding 100 mm diameter Over 100 mm 		m m m m m No No No No No		
FLOORS <i>Preparatory Works</i> <ul style="list-style-type: none"> Prepare floors by removal of existing treatments, 100% roughening and washing etc Over 300 mm wide Not exceeding 300 mm wide Pre-levelling floor, filling depressions where necessary with Sika Screeding Mortar Pre-wetting floor 		m ² m ² m ² m ²		
WATERPROOF SCREEDING WORKS Waterproof Sika®-1 screeding: three coats (35 mm thickness); First coat: Spritz and Bonding Coat mortar with Sika®-1 solution Second coat: Spritz and Bonding Coat mortar-with Sika®-1 solution (10mm) Third coat: Screeding mortar with Sika®-1 solution (25mm)				
<ul style="list-style-type: none"> 35 mm nominal thickness Sika®-1 screed laid on prepared level concrete base:- Over 300 mm wide Not exceeding 300 mm wide 		m ² m ²		
Note: All works to include staggered joints vertically and horizontally between coats minimum 100 mm wide; wood floated, finish and curing.				
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Sika[®]-1 Waterproofing System

Rendering Above Ground

INSTALLATION GUIDE

SURFACE PREPARATION

WALLS:

All existing treatments such as plaster or paint shall be completely removed. All defective mortar joints to be raked out to a depth of 12.0 mm and the exposed surfaces wire brushed, followed by washing down and brushing to ensure full removal of all loose material.

APPLICATION

GENERAL

Sika[®]-1 liquid is diluted (1:10 by volume) with plain clean water and mixed with **Sika[®]-1** prebatched mortars. Care must be taken to prevent lumps forming. Immediately prior to application the substrate must be soaked with clean water and surface dry.

Do not mix plasticisers, lime, etc. with **Sika[®]-1** mortars or solution.

Mixing of the diluted **Sika[®]-1** admixture and **Sika[®]-1** prebatched mortars should be carried out using a forced action mixer or in a clean drum using a drill and paddle mixer. A tumble action mixer is NOT suitable

Sika[®]-1 Render

All render mortars are prepared using **Sika[®]-1** prebatched mortars and gauged with the 1:10 **Sika[®]-1** solution.

The **Sika[®]-1** waterproof render shall be applied in 2 coats using **Sika[®]-1** prebatched mortars to a nominal overall thickness of 12.0 mm

First coat – a **Sika[®]-1** spritz mortar slurry applied as a 6 mm coat by casting on vigorously over the complete wall surface.

Second coat – a **Sika[®]-1** finishing mortar applied by trowel as a 6 mm coat as soon as the first coat has stiffened sufficiently (typically 4-5 hours later), and finished with a wooden float to achieve a closed surface with neat arises.

NEVER scratch the previous coat to form a key as this may let dampness through.

FORMATION OF LAP JOINTS:

When applying **Sika[®]-1** prebatched mortars, successive coats will be lapped to obviate a continuous butt joint through the mortar. The joints between successive coats of render at daywork joints must be stepped back to allow overlaps of over 100 mm between coats. Before continuing with the new work the lap will be prepared by brushing and priming with a **Sika[®]-1** spritz mortar slurry.

CURING

GENERAL:

The **Sika[®]-1** render system must be kept moist during the work period and for a minimum 7 day period after final application to stop drying out and reduce cracking. In addition, it should be prevented from being exposed to sudden changes in air temperature and relative humidities. Protect from frost at all times until cured.