March 2001

BBA BRITISH BOARD OF AGRÉMENT CERTIFICATE No 00/3761

Sika® 1 Pre Batched Mortars

Components of the Sika 1 Structural Waterproofing Systems

Technical Data Sheet

DESCRIPTION

Sika 1 mortars are prebatched kiln dried blends of specially graded aggregates and cements packaged in 3 grades at the appropriate mix ratios for optimum application performance and durability.

When mixed with the diluted **Sika 1** liquid waterproofing admixture they provide the multicoat components for the structural waterproofing and waterproof render systems.

USES

* Structural waterproof renders to resist water pressure below ground.
* Structural waterproof screeds to resist water pressure below ground.
* Waterproof renders to resist moisture and dampness above ground level.
* Internal waterproof tanking.

ADVANTAGES

* Quality controlled production and delivery.
* Kiln dried for repeated quality mixes.
* Consistent mix ratios.
* Simple mixing.
* Colour coded packaging for correct coating selection and quality control.
* Reduces cracking potential.
* Better finishing.
* Does not contain impurities and therefore reduces efflorescence damage.
* Optional OPC and SRC grades.
* Low wastage.
* For brick, concrete and stone substrates.
* Wall render and screed application.
* Can be used internally and externally.

Technical Data (typical)

Form:	Graded kiln dried aggregates and ordinary portland cement. Sulphate resisting cement also available.	
Colour:	Cement grey	
Mixed Wet Density: (approx)	Spritz Mortar	2080 kg/m^3
	Render Mortar	2220 kg/m^3
	Finishing Mortar	2130 kg/m^3
Water Vapour Resistance:	2 coat system 12.0 MNsg^{-1}	
	3 coat system 19.0 MNsg^{-1}	
System Application Temperature:	5°C minimum	30°C maximum
System Application:	6.0 mm minimum per coat	
	30.0 mm maximum per coat	
Working Time: (@ 20°C)	Approximately 30 minutes	

* Can be overplastered, coated and decorated.
* Stand alone waterproofing system against ground water pressure.

Sika 1 Structural Waterproofing System Compliance

BS8102:1990 - Code of practice for protection of structures against water from the ground.

Sika 1 structural waterproof renders and screeds in 3 or 4 coats provides protection suitable for basements of the following grades:

Grade 1 Basic utility:	Slight seepage and damp patches tolerable
Grade 2 Residential and Commercial:	No water penetration but moisture vapour tolerable
Grade 3 Ventilated residential and working areas:	A dry environment is required and water penetration is intolerable
Grade 4 Controlled environments, archives, computer rooms etc	A totally dry environment, vapour impermeable NOTE: Additional vapour proof Sika coating required over render system

APPLICATIONS

STRUCTURAL WATERPROOFING BELOW GROUND: RENDER AND FLOOR SCREED SYSTEM

Owing to the specialist nature of structural waterproofing, all work should be carried out by a Sika recommended contractor. Workmanship should comply with BS8000: Pt4: 1989 Code of Practice for waterproofing. Contact Sika Limited for contractor information.

The **Sika 1** mortars are available in the following 3 grades:
Sika 1 Spritz & Bonding Coat Mortar
(1:1.0 cement-aggregate ratio)
Sika 1 Render Mortar
(1:1.5 cement-aggregate ratio)
Sika 1 Finishing & Screed Mortar
(1:2.5 cement-aggregate ratio)

Sika 1 liquid is diluted (1:10 by volume) with clean water and mixed with the appropriate pre batched mortar by volume to produce wall render and floor screed mixes. Nominal thicknesses:-
Wall render 20 mm (3 coats), 26 mm (4 coats)
Floor screed 40 mm (3 coats).

Refer to installation guide before applying system.

The **Sika 1** waterproofing system must be cured correctly. Refer to Installation Guide for more details.

Reference should **ALWAYS** be made to the Detailing, Architectural and Engineering Consideration sheets, Agrément certificates and Installation Guide.

WATERPROOF RENDER TO RESIST MOISTURE AND DAMPNESS ABOVE GROUND LEVEL

Nominal thickness 12.0 mm (2 coats).
Refer to Installation Guide before applying system.

IMPORTANT CONSIDERATIONS

Do not mix plasticisers, lime, etc. with **Sika 1** mortars or **Sika 1** solution.

NEVER scratch previous coats in render to form a key, as this may let dampness through.

With the exception of the splatter coat applied to the Render Mortar **ALWAYS** add diluted **Sika 1** waterproofing admixture to **Sika 1** prebatched mortars. (See Installation Guide).

PACKAGING

All mortars supplied in 25 kg bags with coloured band.
Spritz Mortar - Red band
Render Mortar - Brown band
Finishing Mortar - Green band

CONSUMPTION/DOSAGE OF GAUGING SOLUTION

Sika 1 Spritz & Bonding Coat Mortar	5.7 litres
Sika 1 Render Mortar	3.3 litres
Sika 1 Finishing & Screed Mortar	3.3 litres for wall render
	3.5 litres for floor screed

Coverage: One 25 kg pack covers 2m² @ 6 mm thick.
Each 25 kg bag yields approximately 12.5 litres of mortar.

All the above values are approximate and based on diluted **Sika 1** liquid (1:10) per 25 kg pack.

STORAGE AND SHELF LIFE

Minimum 6 months in original unopened sealed containers stored in dry warehouse conditions (+10°C - +30°C).

Please consult our Technical Sales Department for further information

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March 2001

BBA BRITISH BOARD OF AGRÉMENT CERTIFICATE No 00/3761

Sika® 1

Waterproofing Admixture for Sand/Cement Render, Screeds and Mortar

Technical Data Sheet

DESCRIPTION

Sika 1 is an aqueous solution containing complex collodial silicates. In the presence of water these swell and block the capillaries and pores in the applied sand/cement renders, screeds and mortar to provide an effective barrier against the transmission of liquid water.

USES

* Structural waterproof renders to resist water pressure below ground.
* Structural waterproof screeds to resist water pressure below ground.
* Waterproof renders to resist moisture and dampness above ground level.
* Internal waterproof tanking.
* General waterproofing admixture for mortar
* Part of the **Sika Watertight Concrete** system (See separate BBA certificate and data sheet).

ADVANTAGES

* Proven for more than 90 years.
* Pre batched system mortars available.
* For brick, concrete and stone substrates.
* Compatible with OPC and SRC.
* Can be applied against live water infiltration.
* Wall render and screed application.
* Can be used internally and externally.
* Excellent resistance to backwater pressure.
* Excellent vapour resistance.
* Complies with Water Quality Regulations.
* Certified by the British Board of Agrément.
* Complies with Building regulations (England, Wales, Scotland and Northern Ireland).
* Suitable for contact with potable water.

Technical Data (typical)

Form:	Liquid
Colour:	Yellow
Liquid Density:	1.05 kg/litre
Chloride Content:	Nil
Freezing Point:	0°C
System Application Temperature	5°C or above
Suitability:	All Portland cements including sulphate resisting.

Approved for potable water contact.
Details available on request.

All above values are approximate.

Sika 1 Structural System Waterproofing Compliance:

BS8102:1990 - Code of practice for protection of structures against water from the ground.

Sika 1 structural waterproof renders and screeds in 3 or 4 coats provides protection suitable for basements of the following grades:

Grade 1 Basic utility:	Slight seepage and damp patches tolerable
Grade 2 Residential and Commercial:	No water penetration but moisture vapour tolerable
Grade 3 Ventilated residential and working areas:	A dry environment is required and water penetration is intolerable
Grade 4 Controlled environments, archives, computer rooms etc	A totally dry environment, vapour impermeable NOTE: Additional vapour proof Sika coating required over render system

Owing to the specialist nature of structural waterproofing, all work should be carried out by a Sika recommended contractor. Workmanship should comply with BS8000: Pt4: 1989 Code of Practice for waterproofing. Contact **Sika Limited** for contractor information.

APPLICATIONS

STRUCTURAL WATERPROOFING BELOW GROUND: RENDER AND FLOOR SCREED SYSTEM

General
All 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.

The correct installation of the **Sika 1** waterproofing system is the responsibility of the recommended contractor. In the unlikely event of the **Sika 1** waterproofing system cracking, debonding, leaking etc, the work shall be rectified by the contractor. In the event of a dispute the advice of an independent consultant experienced in this type of work should be sought to analyse the problem.

Sika 1 liquid is diluted (1:10 by volume) with clean water and mixed with the appropriate pre batched mortar (see separate technical data sheet) by volume to produce wall render and floor screed mixes. Nominal thicknesses:-
Wall render 20 mm (3 coats), 26 mm (4 coats)
Floor screed 40 mm (3 coats).

Points of water infiltration should be sealed using leak plugging, and quick setting waterproofing compounds such as Sika 2, 3 4 and 4a.

The correct detailing of lap joints, floor/wall joints, watertight joints, pipe/duct entries, fixings etc is essential for the performance of the **Sika 1** waterproofing system.
Reference should be made to detailing sheets 1-4 inclusive.

The following guidelines indicate where a four coat render system should be considered:-

* Structures experiencing high water infiltration, and requiring water stopping (plugging), de-watering activities, high water tables, deep basements, local spring conditions etc.
* Grade 2, 3 and 4 structures where the render system will be difficult to maintain in the event of water penetration.

Advice should always be sought from independently qualified personnel with knowledge of the structure and local water/ground conditions. If in doubt a four coat render system should be used.

The **Sika 1** waterproofing system must be cured correctly. Refer to Installation Guide for more details.

Reference should **ALWAYS** be made to the Detailing, Architectural and Engineering Consideration sheets, Agrément certificates and Installation Guide.

WATERPROOF RENDER TO RESIST MOISTURE AND DAMPNESS ABOVE GROUND LEVEL

Nominal thickness 12.0 mm (2 coats).
Refer to Installation Guide before applying system.

SIKA WATERTIGHT CONCRETE

Sika 1 can be used to produce a watertight concrete in conjunction with **Sikament 10**.
Refer to separate **Watertight Concrete** technical data sheet.

GENERAL WATERPROOFING ADMIXTURE

The addition of **Sika 1** to all types of mortar will increase the resistance to water damage due to frost and efflorescence. **Dilution:** 1:10 with the gauging water.

IMPORTANT CONSIDERATIONS

* Do not mix plasticisers, lime, etc. with **Sika 1** mixes.
* NEVER scratch previous coats in render to form a key, as this may let dampness through.
* Do not penetrate **Sika 1** render or screed with fixings. Refer to Detail Sheet No 2

PACKAGING

Refer to current price list.

CONSUMPTION/DOSAGE

For structural waterproofing, waterproof render and watertight concrete refer to separate data sheets (**Sika 1 Prebatched Mortars** or **Sika 1 Watertight Concrete**).
As a general waterproofing admixture:
1½ litres for 50 kg of cement

All above values are approximate

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+10°C - +30°C).

Please consult our Technical Sales Department for further information

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May 2002

Sika® Watertight Concrete

A Two Phase Admixture System for Concrete

Technical Data Sheet

DESCRIPTION

A two phase system incorporating a high range water-reducing admixture (**Sikament 10**) and an inorganic pore-blocking admixture **(Sika 1**) to provide watertight concrete with enhanced durability and improved protection against reinforcement corrosion.

USES

* Basements
* Roofs
* Tunnels
* Culverts
* Marine structures
* Car park decks
* Bridge decks
* Utility vaults
* Water retaining structures
* Sewers and pipelines
* Precast, pre-stressed, post-tensioned, readymixed, reinforced, slip formed and pumped concretes.

ADVANTAGES

* Certified by the British Board of Agrément.
* Can be used in contact with potable water.
* Compatible with OPC and SRC.
* Compatible with **Sika Watertight Jointing Systems**.
* Complies with Building Regulations (England, Wales, Scotland, North Ireland).
* Suitable for Type B construction as described in BS 8102:1990 Grades 1-4.
* Reduced porosity.
* Reduced permeability.
* Increased water resistance.
* Increased corrosion resistance.

Technical Data (typical)

Water absorption (%)	BS 1881:Part 122	1.8
Water permeability (ms^{-1})	Taywood/Valenta	1.61×10^{-13}
Drying shrinkage (%)	BS 6073: Part 1	0.023
Wetting expansion (%)	BS 1881:Part 5	0.016
Freeze/thaw expansion (%)	BS 5075: Part 2	0.17
Compressive strength (Nmm^{-2}) 28 day	BS 1881:Part 116	62.9
Initial surface absorption test (ISAT) ($mlm^{-2}s^{-1}$)	BS 1881:Part 208	
10 mins		0.16
30 mins		0.06
60 mins		0.03
Water vapour permeability gm $(Ns)^{-1}$		510×10^{-12}
Typical concrete vapour permeability gm $(Ns)^{-1}$		3000×10^{-12}

FRESH CONCRETE CHARACTERISTICS

Workability

The workability of **Sika Watertight Concrete** depends on the dosage rate of the **Sikament 10** component. Variation of this component within the mix design limits can facilitate the design of the required concrete.

Compatibility

The system components are compatible with pulverised fuel ash, ground granulated blastfurnace slag, silica fume blends and other regular concreting materials.

GENERAL

Refer to Agrément certificate and separate product data sheets.

TYPICAL MIX DESIGN

The system components should be added to the concrete mix at the rate of:

Sikament 10 0.7-1.2% by weight of cement (approx 3.5 ltr/m^3 of concrete)

Sika 1 7 ltr/m^3 of concrete

The concrete must have a minimum cement content of 350 kgm^{-3} and be batched with a maximum water/cement ratio of 0.5. Further details of suitable mixes can be obtained from Sika Limited.

The system components should be added separately to the concrete mix. They may be premixed with separate batches of the mixing water. On no account should they be added to the dry concrete constituents.

Sika Watertight Concrete is normally supplied as ready-mixed concrete but may be prepared on sites where there is adequate mix control.

SETTING AND HARDENING CHARACTERISTICS

The setting and hardening characteristics of **Sika Watertight Concrete** are similar to the equivalent plain concrete.

PLACING

All aspects of placing must be carried out in accordance with BS 8000: Section 2.2: 1990.

Once mixed, further materials must not be added to the fresh concrete.

Sika Watertight Concrete should be fully compacted and not be placed in temperatures of 5°C or below.

Sika Watertight Concrete should be placed in the same way as plain concrete, in accordance with the manufacturer's health and safety guidance and the normal routine precautions for handling concrete.

FINISHES

When waterbased products are used to coat the **Sika Watertight Concrete**, a bonding agent may need to be applied.

CURING

Curing must always be carried out for the absolute minimum time as generally reccommended by BS 8110 and protected from evaporation for at least 3 days in all cases, more when exposed to aggressive conditions.

Ambient Conditions	Minimum Curing Time (Full 24 Hour Days)		
	at 5-10°C	at 20°C	at 30°C
Good RH>80% Protected from Sun & Wind	maintain protection for minimum 3 days		
Average Intermediate RH>50-80% Partially Protected from Sun & Wind	5	4	3
Poor RH<50% Not Protected from Sun & Wind	7	3	3

Note:

Sika Watertight Concrete curing times (adapted from BS 8110: Portland and Suphate Resisting Cement).

WATERTIGHT JOINTS

The sealing of expansion and construction joints can be achieved using joint sealing systems such as **Sika Injectoflex System**, **Sikadur Combiflex** and **SikaSwell Systems** - dependent upon Grades.

Penetrations of the concrete, such as pipe entries or formwork ties, must also be securely sealed to maintain watertightness.

PACKAGING

Sika 1 and **Sikament 10** 200 litres, 1000 litres

STORAGE AND SHELF LIFE

Minimum 1 year when materials are stored in original unopened containers in dry conditions between 10°C and 30°C. Protect from frost.

Please consult our Technical Sales Department for further information

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July 2002

Sika® 2

Rapid Setting Leak Stopping Liquid (High Water Pressure Infiltration)

Technical Data Sheet

DESCRIPTION

Sika 2 is a ready to use liquid which is mixed with ordinary portland cement to produce a paste for leak sealing.

USES

* To seal against high water pressure infiltrations in concrete, rock or masonry.
* Allows **Sika 1** renders, gunite or shotcrete to be applied on structures exposed to running surface water.

ADVANTAGES

* Ready to use.
* Does not require diluting.
* Rapid setting time.
* Just add ordinary portland cement.
* Well proven.
* Does not contain chlorides.

Technical Data (typical)

Form: Liquid

Colour: Red

Setting times:

Dilution **Sika 2**	Setting time (secs)	**Sika 2** usage litres/kg
Neat Do not dilute	15 - 20	0.7

All above values are approximate.

SURFACE PREPARATION

At the location of infiltration, remove all loosely adhering particles, algal growth contaminants etc by localised scabbling, needle gunning etc to roughen and clean substrate.

Control leakage by diverting water to selected discharge points formed of short lengths of plastic or rubber tube set into the substrate. Pre-drill holes to accept tubes.

DOSAGE

1 **:** 2 by vol (**Sika 2 :** Ordinary Portland Cement).

MIXING

Place **Sika 2** in a mixing container then add the O.P.C. Stir the mix together quickly to form a paste.

APPLICATION

* After pre-drilling holes for tubes, bond tubes into holes using either **Sika 2** or **Sika 4a** paste.
* For sealing large areas of infiltration, first seal off using either **Sika 2** or **Sika 4a** cement paste while allowing water to infiltrate through substrate (see separate data sheet).
* Gradually seal off water by working towards the discharge points.
* When the water flow has been controlled through the discharge points apply the **Sika 1** structural waterproofing render or gunite layers upto the discharge tubes.
  Note: Do not apply final layer of render or gunite until discharge tubes have been removed and water infiltration has stopped.
* Allow render or gunite coats to set for a minimum of 24 hours.
* Remove discharge tubes from holes.
* Mould the **Sika 2** paste by gloved hand into a plug and place immediately into the discharge hole, pressing firmly until the mix has set (15 - 20 secs).
* Apply final coats of render or gunite over the **Sika 2** plugs at a minimum thickness of 10.0 mm.

IMPORTANT CONSIDERATIONS

* Where high water pressures are experienced, the prepared area around the discharge tubes may need to be increased to provide a larger surface area for bonding the **Sika 2** paste.
* Setting times will be affected by ambient temperature, water and **Sika 2** temperature, supplier and age of ordinary portland cement. Trials are recommended varying the **Sika 2** dosage, temperature and type of ordinary portland cement until the required performance is achieved.
* Use only fresh ordinary portland cement.
* Wear suitable protective clothing, gloves and eye protection.
* **Sika 2** plugs must always be overcoated with a final waterproof layer.
* Do not dilute.
* Best results are usually achieved by applying with gloved hand.

CLEANING

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

1 kg of portland cement **:** 0.7 litres of **Sika 2**.
Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +30°C). Protect from frost.

Please consult our Technical Sales Department for further information

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July 2002

Sika® 3

Multi Purpose Leak Stopping and Waterproof Mortar/Antifreeze Liquid

Technical Data Sheet

DESCRIPTION

Sika 3 is a ready to use liquid which is mixed with water, ordinary portland cement and sand to produce a waterproof mortar or paste for leak stopping.

USES

* To seal leaking joints in brickwork, subject to low pressure and small water infiltration.
* To seal fissures in rock subject to low pressure and small water infiltration.
* As an antifreeze in mortar for cold weather working down to -2°C.

ADVANTAGES

* Ready to use.
* Just add water or ordinary portland cement.
* Well proven.
* Multi purpose usage.

Technical Data (typical)

Form: Liquid

Colour: Green

Setting times:

Dilution **Sika 3 :** water	Setting time (mins)	**Sika 3** usage litres/kg cement
Neat	1 - 2	0.70
1 : 1	1.5 - 3	0.35
1 : 2	4 - 10	0.23

All above values are approximate.

SURFACE PREPARATION

Waterproofing of mortar joints:

* Rake out mortar joint to sufficient depth.
* Clean joints with water to remove all debris.

Sealing fissures in rocks:

* Remove all loosely adhering particles, algal growth and contaminants etc by localised scabbling, needle gunning etc to roughen and clean substrate.

DOSAGE

For leak sealing:

Dilution **Sika 3 :** water	**Sika 3** usage litres/kg cement
Neat	0.70
1 : 1	0.35
1 : 2	0.23

Waterproof mortar joints:
Preliminary waterproofing

Dilution **Sika 3 :** water	**Sika 3** usage litres/kg cement
½ : 1	0.53
1 : 1	0.35
1 : 2	0.23

Final waterproofing

Dilution **Sika 3 :** water	Dry mortar mix sand **:** cement	Comments
1 : 2 1 : 3 1 : 4	1 : 1 1 : 2	A combination of dilutions and mortar mixes can be used.

Cold weather working mortar:
3½ litres **:**50 kg **:** 200 kg - **Sika 3 :** cement **:** sand.

MIXING

Place **Sika 3** in a mixing container then add the appropriate amount of water, mix well then add the required weight of O.P.C. or dry mortar mix and mix until a uniform consistency is achieved.

APPLICATION

Leak sealing:
Apply the **Sika 3** cement paste onto the area to be sealed and hold in place until the mix has set.

Waterproof mortar joints:
Apply the preliminary waterproofing cement paste into the joint with the appropriate tool and partially fill joint. Once set, apply the final waterproofing mix to fill the remainder of the joint.

IMPORTANT CONSIDERATIONS

* Setting times will be affected by ambient temperature, water and **Sika 3** temperature, supplier and age of ordinary portland cement. Trials are recommended varying the **Sika 3** dosage, temperature and type of ordinary portland cement until the required performance is achieved.
* Use only fresh portland cement.
* Wear suitable protective clothing, gloves and eye protection.
* Use only clean potable water for dilution.
* **Sika 3** contains calcium chloride. Do not use on reinforced concrete.

CLEANING

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

Dependent on application, see tables. Values in table exclude allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +30°C). Protect from frost.

Please consult our Technical Sales Department for further information

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July 2002

Sika® 4

Quick Setting Leak Stopping Liquid (Low Water Pressure Infiltration)

Technical Data Sheet

DESCRIPTION

Sika 4 is a ready to use liquid which is mixed with water and ordinary portland cement to produce a paste for leak stopping.

USES

* To seal against low water pressure and small infiltrations in concrete, rock or masonry.
* Allows **Sika 1** renders to be applied on structures exposed to surface water.

ADVANTAGES

* Ready to use.
* Just add water and ordinary portland cement.
* Well proven.
* Does not contain chlorides.
* Suitable for contact with potable water.

Technical Data (typical)

Form: Liquid

Colour: Brown

Setting times:

Dilution **Sika 4 :** water	Setting time (mins)	**Sika 4** usage litres/kg cement
Neat	45 - 60 (secs)	0.70
1 : 3	1.5 - 2	0.20
1 : 5	4 - 5	0.15

Approved for potable water contact. Details available on request.

All above values are approximate.

SURFACE PREPARATION

At the location of infiltration, remove all loosely adhering particles, algal growth contaminants etc by localised scabbling, needle gunning etc to roughen and clean substrate.

DOSAGE

Dilution **Sika 4 :** water	**Sika 4** usage litres/kg cement
Neat	0.70
1 : 3	0.20
1 : 5	0.15

MIXING

Place **Sika 4** in a mixing container then add the required amount of water, mix well then add the required weight of O.P.C.and mix quickly to form a paste.

APPLICATION

* Apply the **Sika 4** paste by gloved hand onto the area to be sealed and hold firmly in place until the mix has set.
* When water infiltration has stopped the **Sika 1** waterproofing system can be applied.

IMPORTANT CONSIDERATIONS

* Setting times will be affected by ambient temperature, water and **Sika 4** temperature, supplier and age of ordinary portland cement. Trials are recommended varying the **Sika 4** dosage, temperature and type of ordinary portland cement until the required performance is achieved.
* Use only fresh portland cement.
* Wear suitable protective clothing, gloves and eye protection.
* Use only clean potable water for dilution.

CLEANING

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

1 kg of portland cement **:** 0.15 - 0.7 litres of **Sika 4**. Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +30°C). Protect from frost.

Please consult our Technical Sales Department for further information

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July 2002

Sika® 4a

Quick Setting Leak Stopping Liquid (High Water Pressure Infiltration)

Technical Data Sheet

DESCRIPTION

Sika 4a is a ready to use liquid which is mixed with water and ordinary portland cement to produce a paste for leak stopping.

USES

* To seal against high and moderate water pressure infiltrations in concrete, rock or masonry.
* Allows **Sika 1** renders, gunite or shotcrete to be applied on structures exposed to running surface water.

ADVANTAGES

* Ready to use.
* Rapid setting time.
* Just add water and ordinary portland cement.
* Well proven.
* Does not contain chlorides.
* Suitable for potable water contact.

Technical Data (typical)

Form: Liquid

Colour: Clear

Setting times:

Dilution **Sika 4a :** water	Setting time	**Sika 4a** usage litres/kg cement
1 : 1	15 - 45 secs	0.35
1 : 4		0.18

Approved for potable water contact.
Details available on request.

All above values are approximate.

SURFACE PREPARATION

At the location of infiltration, remove all loosely adhering particles, algal growth contaminants etc by localised scabbling, needle gunning to roughen and clean substrate.

Control leakage by diverting water to selected discharge points formed of short lengths of plastic or rubber tube set into the substrate. Pre-drill holes to accept tubes.

DOSAGE

1 **:** 3 by vol (diluted **Sika 4a :** Ordinary Portland Cement).

MIXING

Place **Sika 4a** in a mixing container then add the O.P.C. Stir the mix together quickly to form a paste.

APPLICATION

* After pre-drilling holes for tubes, bond tubes into holes using **Sika 4a** cement paste.
* For sealing large areas of infiltration, first seal off using **Sika 4a** cement paste while allowing water to infiltrate through substrate (see separate data sheet).
* Gradually seal off water by working towards the discharge points.
* When the water flow has been controlled through the discharge points apply the **Sika 1** structural waterproofing render or gunite layers upto the discharge tubes.
  Note: Do not apply final layer of render or gunite until discharge tubes have been removed and water infiltration has stopped.
* Allow render or gunite coats to set for a minimum of 24 hours.
* Remove discharge tubes from holes.
* Mould the **Sika 4a** cement paste by gloved hand into a plug and place immediately into the discharge hole, pressing firmly until the mix has set (15 - 20 secs).
* Apply final coats of render or gunite over the plugs at a minimum thickness of 10.0 mm.

IMPORTANT CONSIDERATIONS

* Where high water pressures are experienced, the prepared area around the discharge tubes may need to be increased to provide a larger surface area for bonding the **Sika 4a** cement paste.
* Setting times will be affected by ambient temperature, water and **Sika 4a** temperature, supplier and age of ordinary portland cement. Trials are recommended varying the **Sika 4a** dosage, temperature and type of ordinary portland cement until the required performance is achieved.
* Use only fresh portland cement.
* Wear suitable protective clothing, gloves and eye protection.
* **Sika 4a** plugs must always be overcoated with a final waterproof layer.
* Best results are usually achieved by applying with gloved hand.

CLEANING

Application and mixing tools should be cleaned with water immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

MATERIAL CONSUMPTION

1 kg of portland cement **:** 0.18 - 0.35 litres of **Sika 4a**. Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +30°C). Protect from frost.

Please consult our Technical Sales Department for further information

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March 2001

SikaMur® Dry

Ventilating Plaster for Reinstatement over Damp Masonry

Technical Data Sheet

DESCRIPTION

SikaMur Dry is a one component ready to use pre-bagged mortar containing specially selected limestone aggregates and air entraining additives for the rehabilitation of damp masonry. It is part of the **SikaMur** damp proofing render system.

SikaMur System:
SikaMur Dry - bonding coat.
SikaMur Dry - plaster coat.
SikaMur Finish - finishing coat.

USES

* Internal and external re-plastering of masonry walls.
* Ideal application on salt containing walls.
* Complimentary refurbishment after timber treatment and DPC injection.

ADVANTAGES

* Just add water.
* Pre-bagged for quality.
* High build.
* Controlled drying out of damp masonry ie flood damage.
* Resists soluble salt migration and efflorescence damage.
* Can be applied to damp surfaces.
* Simple trowel application.
* Suitable for a wide variety of substrates.
* Lightweight characteristics improve thermal properties and protects against interstitial condensation.

Technical Data (typical)

Mixed colour:	Grey
Mixed density:	1.50 kg/litre
Application thickness:	5.0 mm minimum 20.0 mm maximum
Plaster system:	1 x 5.0 mm minimum bond coat 1 x 5.0 mm minimum plaster coat 10.0 mm overall minimum thickness
For high salt contamination:	1 x 5.0 mm bond coat 1 x 15.0 mm plaster coat 20.0 mm overall minimum thickness
Application temperature:	+5°C min, +30°C max (Substrate and ambient)
Mix ratios:	
Bond coat:	3.6 litres of water per 25 kg bag
Plaster coat	3.0 litres of water per 25 kg bag
MECHANICAL PROPERTIES	
Air cured @ 20°C	RH 65%
Compressive strength:	24 hrs > 1.5 N/mm² 7 days > 4.0 N/mm² 28 days > 7.0 N/mm²
Bond strength: (tensile)	Min 1.0 N/mm²
'Working time':	Approx 30 minutes

All above values are approximate.

SUBSTRATE PREPARATION

Completely remove all existing damaged plaster back to a sound, dense masonry base.

Ensure any perimeter saw cuts are mechanically roughened to ensure a key with **SikaMur Dry** mortar.

Removal Height: Plaster should be removed up to a height extending above the damaged line plus three times the wall thickness. Any defective joints to be made good using **SikaMur Dry** mortar mixed to a semi-dry consistency.

MIXING

Mix the **SikaMur Dry** with water until the desired workability is achieved and using a slow speed electric drill with paddle or a forced action mixer, mix until a smooth, workable consistent lump free mortar is formed. Do not mix for more than 3 minutes to prevent excess air entrainment.

APPLICATION

The prepared masonry should be thoroughly soaked with clean water until uniformly saturated leaving no standing water.

Bonding coat:

To the pre-wetted masonry wall apply a bonding coat using the prepared **SikaMur Dry** mortar using a casting technique, (a slurry brush may be used as an alternative).

Plaster coat:

When bonding coat has sufficiently set, next trowel apply **SikaMur Dry** mortar using profile battens to ensure a minimum 10 mm overall layer thickness.

Finish using a wood float or screeding bar. Deep cavities/recesses will require additional build-up layers.

CURING

Attention should be given to curing, ensuring full hydration of the mortar using, where required, damp hessian or polythene sheeting to minimise risk of cracking.

IMPORTANT CONSIDERATIONS

* **SikaMur Dry** mortar must be finished using wood floats or screeding bar. Use of steel or plastic floats should not be used as this will close off the cellular bubbles retained in the mortar.
* Use **SikaMur Finish** as a final coat for decorative finishes.
* Use decorative finishes which allow vapour diffusion.
* Only use clean potable water.
* Protect against rain for at least 6 hours.
* Ensure recommendations for mixing are followed.
* Do not mix any additives.
* Apply only to a sound substrate.
* Protect against frost.

CLEANING

Remove **SikaMur Finish** from tools and equipment with water. Hardened material will require mechanical removal.

PACKAGING

Refer to latest price list.

CONSUMPTION

15 kg/m² for a 10 mm layer.
30 kg/m² for a 20 mm layer.
Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 6 months in original unopened sealed containers stored in dry warehouse conditions (+10°C - +30°C).

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March 2000

SikaMur® Finish

Ventilating Finishing Plaster for Decorative Finishes

Technical Data Sheet

DESCRIPTION

SikaMur Finish is a one component ready to use pre-bagged lime based plaster designed to provide a fine, smooth finishing coat over previously applied renders, such as **SikaMur Dry** or the **Sika 1 Structural Waterproofing System**. It is part of the **SikaMur** damp proofing system.

SikaMur System:
SikaMur Dry - bonding coat.
SikaMur Dry - plaster coat.
SikaMur Finish - finishing coat.

USES

* Internal and external use.
* Finishing masonry walls subject to rising damp.
* Smooth surface to accept decorative coatings.
* Heritage projects.

ADVANTAGES

* Low vapour resistance for controlled drying of damp masonry
* Workability upto 10 hours.
* Excellent substrate bond.
* Easily finished.
* Just add water.
* Pre-bagged for quality.

Technical Data (typical)

Mixed colour:	White
Mixed density:	1.10 kg/litre
Application thickness:	1.0 mm minimum 3.0 mm maximum
Application temperature:	+5°C min, +30°C max (Substrate and ambient)
Mix ratios:	7.5 - 10 litres of water per 25 kg bag depending on workability required
'Working time':	Up to 10 hours

All above values are approximate.

SUBSTRATE PREPARATION

All existing substrates (ie **SikaMur Dry** or **Sika 1** render) to be clean, contaminant free and pre-dampened.

MIXING

Add the required amount of water and mix using a slow speed drill with paddle or a forced action mixer until a uniform mix is achieved. Allow to stand for two minutes before using. **SikaMur Finish** may be used up to 10 hours after mixing subject to periodic remixing.

APPLICATION

Trowel apply in 1 - 3 mm thick layers using a plasterers float. Leave until initial set and trowel finish to the desired texture.

CURING

Attention should be given to curing, ensuring full hydration of the mortar using, where required, damp hessian or polythene sheeting to minimise risk of cracking.

IMPORTANT CONSIDERATIONS

* Ensure adequate drying out prior to painting ie approx 3 weeks.
* External decorative/protective finishing can be provided using **Sika** vapour permeable coatings.
* Only use clean potable water.
* Do not mix any additives.
* Protect against rain for at least 6 hours.

CLEANING

Remove **SikaMur Finish** from tools and equipment with clean water. Hardened material will require mechanical removal.

PACKAGING

Refer to latest price list.

CONSUMPTION

1.10 kg/m² per 1 mm layer thickness.
Excluding allowances for loss, wastage and surface profile.

STORAGE AND SHELF LIFE

Minimum 6 months in original unopened sealed containers stored in dry warehouse conditions (+10°C - +30°C).

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August 2002

Inertol® 49W Thick

Liquid Asphaltic Compound for Concrete and Steel

Technical Data Sheet

DESCRIPTION

Inertol 49W Thick is a one pack, phenol-free coating material containing mineral fillers and based on a solution of white spirit carried bitumen. It complies with BS3416 Type II and cures to provide a matt black membrane.

USES

* Protective coating for concrete and steel structures.
* Vapour barrier behind cladding or internal plaster.
* Waterproofing foundation walls, ducts, lintels, columns, beams and similar structures, above and below ground level.
* D.P.M. for gound floors.
* Steel components buried in the ground.

ADVANTAGES

* Easily applied even to difficult detailing.
* High build flexible finish.
* Frost-proof after application.
* Resistance to dilute acids, alkalis and neutral salts.
* Barrier to water and water vapour.
* Applied by brush, roller or spray.

Technical Data (typical)

Colour:	Black and Red	
Specific Gravity:	Approx 1.2 kg/ltr	
Volume Solids:	Approx 58%	
Application temperatures:	+5°C min, +30°C max (Substrate and ambient)	

COATING SYSTEM

Concrete:	2 - 3 x **Inertol 49W Thick**	
Steel:	2 - 3 x **Inertol 49W Thick** Exposure to water 1 x **Friazinc R** 3 x **Inertol 49W Thick**	
Material Consumption:	0.20 litres/m² (0.25 kg/m² per coat)	
Overcoating times:	Between **Friazinc R** and top coat:	Between coats:
	1 day	3 days @ 15°C
Final drying:	10 - 14 days	
Chemical resistance:	Good resistance to water, also chlorinated water, dilute acids, alkalis and neutral salts.	

All above values are approximate.

SURFACE PREPARATION

General: All surfaces must be free from dirt and dust. Lime efflorescence, salts and paint remnants must be removed by light blasting, steam-cleaning or the use of suitable detergents.

Resulting substrates must be sound, lightly profiled and surface dry (concrete should preferably be 3 weeks old).

Concrete: Horizontal surfaces should be lightly tamped, brushed or floated with a maximum 3 - 4 mm peak to trough.

Any sharp edges or peaks should be eliminated and voids or hollows made good accordingly.

Masonry: Joints must be flush pointed. Open textured surfaces should be sealed to provide a suitable surface

Steel: Surfaces should be blast cleaned or mechanically wire brushed to produce bright metal steel.

APPLICATION

Inertol 49W Thick is supplied ready to use. Stir thoroughly prior to application. In cases of low temperatures and dense substrates up to 5% **Thinner B** may be added.

For site and coating control purposes **Inertol 49W Thick** is supplied in black and tinted red, which can be used for alternate coats.

By brush: Using round or distemper brushes work vigorously in all directions to ensure complete and uniform coverage.

By roller: Using a lambswool roller ensure complete and uniform coverage.

Do not pour material onto substrates or allow to pond in surface depressions.

By spray: Using high pressure or cup gun equipment with 1.8 mm nozzles at 3 - 5 bar pressure (43 - 71 psi.) or airless spraying equipment with 0.46-0.66mm (18 thou.) nozzles and a spray angle of 40 - 80°C. If necessary a maximum of 5% by weight of **Thinner B** may be added.

Good ventilation is necessary to achieve a proper cure.

Inertol 49W Thick is compatible with commonly used damp proof course materials other than those containing pitch polymer which should be isolated from contact.

IMPORTANT CONSIDERATIONS

* During application in closed rooms, pits, shafts etc. sufficient ventilation must be provided. If this is not possible respiratory masks will become necessary.
* Keep away from naked flames. Electric safety lamps and spark proof ventilation equipment should be used where required.
* In a liquid state the product and its thinner contaminate water and should not be allowed to enter drains or come into contact with water courses or soil.
* In all cases remnants of material and thinner must be removed and disposed of in accordance with prevailing regulations.
* On rough/tamped concrete surfaces, consumption could be increased by upto 100%.
* When applying sand/cement floor screeds and internal wall plasters, the final coat of **Inertol 49W Thick** should be blinded with clean sharp sand while tacky to provide a mechanical key.
* For internal wall plasters use gypsum based systems. Do not use cementitious based plasters, renders or dry wall linings.

CLEANING

Use **Thinner B**. Hardened material may have to be mechanically removed.

PACKAGING

Refer to latest price list.

CONSUMPTION

Approximately 0.25 kg/m² (0.20 litres/m²) per coat in a normally two or three coat system. (These figures do not allow for surface porosity, profile or material wastage).

STORAGE AND SHELF LIFE

Minimum 1 year in unopened original sealed containers stored in dry warehouse conditions (+5°C - +35°C).

Please consult our Technical Sales Department for further information

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March 2001

SikaDur®-Combiflex®

High Performance Joint and Crack Sealing System

Technical Data Sheet

DESCRIPTION

The **SikaDur-Combiflex Jointing System** consists of a **Sika® Hypalon Strip** and **Sikadur 31** epoxy resin adhesive.

Combiflex Hypalon Sheet is a highly elastic, rot-proof and chemically resistant sealing sheet with a thickness of 1 mm or 2 mm. **Sikadur 31** adhesive is epoxy resin based and establishes a strong bond to the substrate.

USES

For sealing construction joints, expansion joints, connection joints, cracks and fissures on concrete and masonry for:

* Tunnels, culverts and ventilation ducts.
* Reservoirs and water retaining protection.
* Swimming pools.
* Silos.
* Waste water treatment plants.
* Industrial floors.
* Basements and cellars.
* Failed joint sealants.
* Roof connections.

ADVANTAGES

* Resists water pressure.
* Easy to install.
* Applicable on dry and damp (not wet) surfaces.
* For large expansion joints or cracks.
* Permanent elasticity even at low temperatures.
* Weather resistant.
* Resistant to chemicals.
* No need to remove existing failed sealant.
* Suitable for contact with potable water.
* Suitable for new and existing joints.
* High joint movement capacity.
* Can be internally or externally applied.
* Accommodates variation in joint width.
* Accommodates movement in more than one dimension.
* Also suitable for crack repair and sealing around penetrations.

Technical Data (typical)

Colour:	**Hypalon Strip** - Grey **SikaDur 31** - Grey
Application temperature:	+5°C minimum +30°C maximum
Service temperatures: (wet and dry)	+60°C (dry), +40°C (wet), -30°C (dry)
HYPALON STRIP:	
Elongation at break:	>400%
Tensile strength:	>6.0 N/mm²
Tear propagation strength:	>300 N/cm
Maximum permissible permanent elongation:	1.0 mm strip - 10% of non adhered width 2.0 mm strip - 25% of non adhered width For higher movement place and fix in a loop
Artificial weathering:	10,000 hours passed
Pulsation resistance:	(5% extension, 4 cycles per sec) >100,000 cycles*
Vibration resistance:	(5% expansion, 120 cycles per sec) >50,000 cycles*
Water pressure resistance:	Depending on joint design, up to 1 - 2 bar (25 psi back pressure)
Bond of system:	Concrete . 2.0 N/mm² (Substrate failure)
CHEMICAL RESISTANCE: (SYSTEM)	
Long term:	To water, lime water, cement water, sea water, salt solutions, domestic sewage, bitumen, emulsion type bituminous coatings.
Short term:	To light fuel oil, diesel, diluted alkalies and mineral acids, ethanol, methanol, petrol.

The above chemicals are a guide only. Regarding specific chemical resistance, exposure trials should be carried out.

ADHESIVE- SIkaDur 31

Pot life:

Temp	Normal Grade	Rapid Grade
30°C	20 mins	-
20°C	40 mins	10 mins
10°C	1½ hours	30 mins
5°C	3½ hours	1 hour
0°C	-	1¼ hours

Consult the **SikaDur 31** technical data sheet for additional information.

All above values are approximate.

SURFACE PREPARATION

Concrete:
The concrete surfaces should be mechanically cleaned, preferably by blast cleaning followed by vacuuming. The laitance must be removed to establish good adhesion. All surfaces must be clean, sound and free from any oil, grease or other contaminants. Concrete should be at least 3 weeks old.

Steel:
Grind or grit blast to a clean bright metal finish.

HYPALON STRIP PREPARATION

Thoroughly wipe both sides of the **Combiflex Hypalon** sheeting strips with **Thinner C**. Allow to dry. Do not use too much solvent and avoid damaging the red masking tape. Leave to dry, minimum one hour, maximum 8 hours.

APPLICATION

- The **SikaDur-Combiflex** strip is activated on both sides with **Thinner C** using a clean cloth. leave to dry for at least 1 hour - max
- Use masking tape either side of the joint to provide a neat edge and over the middle of the new or existing joint.
- Mix **SikaDur 31** (components A and B) for a minimum of 3 minutes until the mix is homogeneous.
- Apply **SikaDur 31** adhesive on both sides of the joint onto the prepared substrate. Layer thickness 1 - 2 mm width (on each side) at least 50 - 60 mm.
- Remove masking tape from the middle of joint.
- Place activated **SikaDur-Combiflex** strip in position with red tape facing upwards and roll it to remove entrapped air.
- Apply **SikaDur 31** adhesive on top of the strip.
- Remove masking tapes from the joint sides as well as the red middle tape from the **SikaDur-Combiflex** strip. Smooth **SikaDur 31** with brush.
- Overlap strip connections minimum 40 - 50 mm, apply the **Sika C705** contact adhesive and 'T' and 'X' pieces or weld with a hot air gun.

Refer to application details - contact Sika Ltd.

IMPORTANT CONSIDERATIONS

- Use **SikaDur 31 Rapid** for potable water contact.
- Refer to **SikaDur 31** technical data sheet.
- Do not use **Sika C705** or **Thinner C** inside water potable structures. Solvent wipe outside structure and heat weld longer length and T-pieces etc.
- This joint sealing method can be carried out horizontally, vertically or overhead. However, it should be noted that **SikaDur 31** is not a contact adhesive and some support of the uncured strip may be required on overhead structures.
- The **SikaDur-Combiflex** system must be protected from mechanical damage.
- Where exposed to water pressure the strip must be supported in joint by foam or sealant.
  Limit without support:0.5 bar - 5.0 mm using 2.0 mm thick **SikaDur-Combiflex** strip.

CLEANING

Clean tools immediately with **Sika Thinner C**.

PACKAGING

Refer to latest price list.

CONSUMPTION

Per linear metre **Combiflex Hypalon**, width 10 cm, approx. 0.4 - 0.6 kg **SikaDur 31** adhesive (depends on surface roughness, etc.).

STORAGE

Minimum 1 year in unopened original sealed packing stored in dry warehouse conditions (+5°C - +25°C).

Please consult our Technical Sales Department for further information

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March 2001

SikaDur® 31

Thixotropic Epoxy Adhesive

Technical Data Sheet

DESCRIPTION

SikaDur 31 is a two component solvent free, cold cure, thixotropic epoxy adhesive suitable for damp and dry substrates. Available in two grades - **Normal** and **Rapid**.

USES

* Bonds all types of construction materials: concrete, brick, stoneware, polyester, epoxy, glass, steel, iron and timber.
* Bonding bridge.
* Levelling.
* Blowhole/pore hole filling
* Crack and surface sealer.
* Bonding new to old concrete.
* Crack injection 10 - 15 mm.

ADVANTAGES

* Colour coded components to ensure correct mixing.
* Excellent adhesion even in damp conditions.
* Thixotropic consistency allows application in vertical and overhead situations.
* Excellent water resistance.
* **Rapid** grade for low temperature working.
* Resistant to chemicals, solvents, oils.
* Solvent free.
* Suitable for contact with potable water (**Rapid** grade).
* Good resistance to creep.

Technical Data (typical)

Colour: Grey (mixed)
Base - white
Hardener - black

Density: 1.55 kg/litre

Application temperatures: +0°C min - +20°C max (**Rapid**)
+5°C min - +30°C max (**Normal**)
(substrate and ambient)

Layer thickness per application: 1.0 mm minimum
10 mm maximum

Compressive strength gain guide (N/mm²)

Grade	Normal			Rapid		
Time (days)	1	5	10	1	5	10
0°C	-	-	-	5	20	55
5°C	10	40	55	15	35	60
10°C	20	50	60	20	40	65
20°C	55	65	65	60	65	75
30°C	60	70	75	-	-	-

Flexural strength: 35 N/mm² @ 20°C

Tensile strength: 18 N/mm² @ 20°C

Modulus of Elasticity: (static) 8.0 KN/mm² @ 20°C

Coefficient of Expansion: 50 x 10^{-6} per °C

Bond strength: Concrete: typically 2 - 3 N/mm² (concrete failure)
Steel: typically 14 N/mm² (epoxy failure)

Shrinkage: Negligible

Pot life:

Grade	Normal	Rapid
Time		
0°C	-	1¼ hrs
5°C	3½ hrs	1 hr
10°C	1½ hrs	30 mins
20°C	40 mins	10 mins
30°C	20 mins	-

Approved for potable water contact.
Details available on request.

All above values are approximate.

SURFACE PREPARATION

Concrete/Brickwork/Mortar Substrates:
Surfaces must be sound, clean, free from frost, oils, grease, standing water and all loosely adhering particles and other surface contaminants. Cement laitance must be removed

Mechanically prepare surfaces by suitable approved techniques such as needle gunning, scabbling, bush hammering, water/grit blasting etc
Concrete must be at least 3-6 weeks old.

Steel Substrate:
Prepare surfaces by removing old coatings, rust products, grease, oil etc by suitable mechanical equipment to a bright metal finish. Apply **SikaDur 31** within 4 hours or protect reinforcement with **Sika® Armatec 110 EpoCem®**.

MIXING

Stir component A prior to mixing (resin). The whole of component A (resin) should be mixed with the whole of component B (hardener) for a minimum of 2 minutes using a slow speed electric stirrer (300-600 rpm) and suitable spiral or paddle mixer until a uniform mix and colour is achieved.

APPLICATION

Apply directly to the prepared substrate by brush, trowel, spatular to the required layer thickness. Allow each layer to achieve initial set and for heat to dissipate from hardening process before application of further layers.

Smooth off final layer with a clean steel trowel. Avoid feather edges and where necessary form a recess of at least 2.0 mm around repair area.

IMPORTANT CONSIDERATIONS

* At higher temperatures pot life will be shortened.
* At lower temperatures the material will become more difficult to apply and take longer to harden.
* Wear suitable protective clothing, gloves and eye protection.
* Do not add solvent to the mix.
* Always ensure good ventilation when using in a confined space.
* **Thinner C** is flammable. NO NAKED FLAMES
* Do not mix additional fillers.
* When bonding @ 0°C ensure ice is not present on substrate and temperature will increase above this value within 24 hours.

CLEANING

All tools should be cleaned with **Thinner C** immediately after use. Hardened material must be removed mechanically.

PACKAGING

Refer to latest price list.

CONSUMPTION

1.55 kg/m² @ 1.0 mm thickness
7.75 kg/m² @ 5.0 mm thickness

Excluding allowances for loss wastage surface profile and porosity.

STORAGE AND SHELF LIFE

Minimum 12 months in sealed containers stored in dry warehouse conditions (+5°C - +30°C).

Please consult our Technical Sales Department for further information

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