

MAINTENANCE & FIXING GUIDE

SIKATHERM & PAREXTHERM Mineral Render Systems

Choosing a SIKA exterior finish means you have made a good choice for a durable and long-lasting facade. To keep it looking fresh and clean, every finish will require some maintenance.

This information will inform you how to care and maintain the finish on your building. It will also answer some questions you might have as you enjoy the benefits of a **SIKA** render finish, and includes maintenance instructions and answers to frequently asked questions. Please keep this information with your property documents so you can refer back to it should you ever need to.

Sika Limited will provide technical assistance if necessary after completion of the application. Website and telephone assistance is also available, please visit www.sika.co.uk/buildingfinishing.

What every new owner with a SIKA render finish needs to know

SIKA render finishes are one of the most durable finishes you will find. Over time, all finishes benefit from occasional cleaning with low pressure washing and an approved detergent to remove airborne dust or other atmospheric matter.

The following are some recommendations for the maintenance of a **SIKATHERM or PAREXTHERM Mineral Exterior Insulation and Facade System (EIFS)**.

Please Note

Sika Limited reserves the right to replace or change this information at any time.



Sika Limited shall not be liable for any consequential or other damages resulting from, or in connection with, the application of these repair procedures, cleaning procedures, or cleaning materials. No warranty, express or implied, is made of the effectiveness of the methods or cleaning materials herein described, and no waiver is made by Sika Limited of the limitations set forth in its warranty.

These suggested procedures are supplied solely for the convenience of the purchaser of **SIKA** materials.

Fixing Brackets, Light Fittings etc.

When an insulated render / brick slip system has been installed onto your property, the fixing of light fittings, hanging basket brackets etc. requires some care and thought. The insulation applied is often very thick, frequently ranging from 60mm to over 200mm thick, with the insulation having no fixing capability. Normal fixings

are not designed to deal with this type of application, therefore certain requirements and procedures need to be followed to ensure a secure application is achieved.

When fixing anything heavy or bulky onto the insulation system it is advisable to use a form of stand-off type fixing or use a form of back plate to spread the load with specialist fixings for cables and lightweight applications.

These specific proprietary fixings are available from certain fixing manufacturers, details of which can be found below or by contacting Sika Ltd for additional guidance.

If these specialist fixings are not available, for small items that need fixing, such as hanging basket brackets or light fittings as examples, you can use elongated frame anchors. These are fitted through a non-corrosive sleeve such as 10, 12, 15mm rigid plastic, stainless steel or copper pipe, but certain precautions need to be considered.

For guidance, the installation procedure is detailed below but may differ depending upon the desired application.

1. Drill a hole in the desired location to suit the diameter of the sleeve being used, until the drill reaches the original substrate. Ensure you **do not** use the hammer mode of the drill as this could shatter the render / brick finish.
2. Cut the sleeve at least the same length as the insulation and render system and install into the hole.
3. Drill the hole to receive the desired frame type fixing, generally an 8mm or 10mm diameter fixing approximately 50 – 70mm into the original substrate. The depth of hole and the fixing type may vary subject to the type of building substrate.
4. Install the fixing plug of the frame fixing into the substrate and carefully seal around the edge of the fixing with a proprietary sealant e.g. **SIKA EB25**. Then apply a further layer of sealant behind the item being fixed around the fixing location, ensuring the hole is fully protected from water ingress.

Specialist Fixings

For additional guidance, please refer to the product data sheets:

ACC2.1

Principle for fixing single downpipe brackets.

ACC3.1

Principle for fixing light objects.

ACC4

Principle for sealing fixings and brackets.

ACC7

Principle for sealing cable ducts and projections.

ACC8.2

Typical fixing of light fittings.

ACC9

Principle for fixing a ventilation grille.

Fischer FID or Rawlplug ISO screw thread fixing into insulation

Ideal for fixing lightweight fixtures and fittings.

Fischer Thermax 8 & 10mm stand-off insulation fixing

Ideal for fixing heavy items e.g. satellite dishes, hanging basket brackets.

GBK Pine Tree clips

Ideal for fixing lightweight signs.

GBK Pine Tree cable clips

Ideal for fixing small cables such as telephone and satellite cable etc.

If in doubt, contact a professional or competent person to carry out the work for you or if required contact Sika for further assistance.

Biological Growth on Render

It is not always possible to explain the growth that occurs on render which generally causes a green discolouration. Sometimes one part of the façade has discolourations and another part of the same façade does not. For an organism to grow in a certain environment, different requirements such as abiotic (physical and chemical) and biotic (biological) factors have to be fulfilled.

Suitable conditions for growth of organisms on façades are certain ranges in temperature and a high moisture level (relative humidity). In addition, the surface structure, nutrient availability, pH value, building position etc. might all be influencing factors too. Different organisms have different demands on these factors, and it is a complex interaction of these different factors that decides if an organism can grow in a certain environment. Therefore, an insulated façade can suffer discolouration from algae or mould growth which is generally nothing to do with the render products or the application, but just unfortunate circumstances beyond the control of Sika Limited.

Cleaning

SIKA finishes are durable, strong materials manufactured to give an attractive appearance and long service but are not a 'fit and forget' finish. They do require general housekeeping

measures to ensure the finish is maintained. Factors beyond **SIKA** control can affect the finish and if left untreated can leave the surface looking stained. One of the most difficult situations for **SIKA** to anticipate is the effect local weather conditions can have on a particular building or facade, particularly wet and damp climates which can cause algae staining. This is not due to the product or application, but circumstances beyond the control of anyone. The desired colour of the finish is manufactured into the product and does not require painting for many years.

The following procedures are suggested to treat **SIKA** finishes in case of accidental or environmental soiling or minor damage. At the end of this guidance are some recommendations of a few cleaning products that are available in the market for **SIKATHERM OR PAREXTHERM Mineral Exterior Insulation and Finish Systems (EIFS)**.

General Information

- **SIKATHERM or PAREXTHERM Mineral** renders are mineral based materials. They are only compatible with non-abrasive cleaning agents that can be used on exterior surfaces.
- Always minimise contact of cleaning agents with the skin, avoid breathing their fumes or vapours, wear goggles, and carefully follow instructions by the cleaning agent manufacturer.
- Cleaning agents should be non-toxic, non-abrasive, non-petrochemical based substances. A simple rule of thumb is, if it does not dilute in water **DO NOT** use it. The cleaning agents should be applied using a soft brush. The surface should **NOT** be scrubbed as this will mark the render finish.
- Test cleaning should be carried out on a small inconspicuous area of the finish to ensure that no detrimental effect will occur.
- Cleaning of soiling should begin with dry finishes. If the finishes have been well soaked by rain, lawn sprinklers, etc., cleaning action may drive soiling deeper into the finish.
- **Exception:** If a liquid staining substance has not yet dried, efforts to remove it should commence immediately, before it can dry. Begin all cleaning by liberally flooding surfaces to be cleaned with clear, running water, and end all cleaning by thoroughly rinsing with clear running water.
- For especially stubborn stains, two applications of cleaning procedure will usually be more effective than one heavier, lengthy application of the cleaning agent. Sometimes leaving a cleaning agent on the surface for a slightly longer time to react with the stain can also be beneficial (carry out a small indiscrete trial first though).

General Soiling

Option 1

Using a soft broom or brush, gently brush the affected area with a solution of strong commercial detergent and warm water.

Option 2

Pressure wash at a maximum pressure setting of 1000psi. Warm water up to 100°F may be used. The nozzle of the pressure washer wand should be held no closer than 300mm from the surface of the **SIKA** finish. Do not concentrate the nozzle in one area as this may result in damage to the surface. We recommend you carry out a trial area first to a non-conspicuous area.

Option 3

Mix $\frac{1}{4}$ cup of **Trisodium Phosphate (TSP)** to 5 litres of warm water. Gently brush the affected area. Rinse thoroughly.

Caution: If not fully rinsed off, TSP can become a nutrient source for algae growth. If required treat the area with **SIKA Mould Buster**.

Rust Stains

Rust stains on **SIKA** finishes can come from iron or steel construction components e.g. cast-iron gutters adjacent to the installation or when placed against the finish. Always use stainless steel or non-corrosive fixings as even treated screws and fixings will cause staining to the finish.

To effectively address the staining, its source should be removed or treated to prevent its re-occurrence. To clean the **SIKA** finish affected by rust stains, use a commercially-available metal oxide remover. This type of staining may not be easily removed.

Stains from Wood

Tannin or other staining fluids from redwood, cedar, plywood or treated timber can be very difficult to remove once they have set on **SIKA Mineral** finishes for an extended period of time. If possible, these stains should be removed immediately by one of the cleaning methods listed above. If the stain does not respond to cleaning, the affected area may have to be sealed and re-coated. Please contact Sika Technical Services for options in this regard.

Tar and Asphalt Materials

Similar to stains produced from woods, tar-like materials can be very difficult to remove.

If the **SIKATHERM or PAREXTHERM Mineral** finish is fully dry and the affected area small, quick action must be taken.

Remove any excess residue, taking care not to enlarge the stain. Cold water and/or ice may be helpful in containing the affected area.

Commercial cleaners are available that may be effective in removing the remaining stain. Please contact Sika Technical Services for more information. In the event that the stain cannot be removed, it may be necessary to seal and re-coat the surface with **PAREX Crylane**.

Mildew, Fungus and Algae

For installation of **SIKATHERM** or **PAREXTHERM Mineral** systems in geographic areas prone to microbiological fungus and algae growth, a regular schedule of cleaning is advisable. At the first signs of organism growth, the affected area should be cleaned, and at a very early stage this can be achieved with a light power wash. For more infected areas, an application of domestic bleach in diluted form (take necessary precaution against splashes and read and observe the instruction on the container) may be suitable. Take care on dark colours and carry out a trial sample area first. For large scale areas treat with **SIKA Mould Buster**.

If the stain cannot be removed, it may be necessary to seal and coat the surface with **PAREX Crylane** and the **PAREX Paraguard** surface sealer may also assist. See remedial solution for dealing with mould and stains onto render surface finishes proposal below.

Painting

SIKATHERM or **PAREXTHERM Mineral** finishes generally remain attractive for many years of service. However, if desired, **SIKA Mineral** render finishes can be coated with **PAREX Crylane**. It should be realised that **PAREX Crylane** applied in its neat form will alter the texture and sheen of the original finish.

In all cases, please complete a trial area first. This is an especially important point to consider if the paint is covering a scraped textured finish. Due to the nature of these finishes, some of the texture may be lost when painting.

There is no cross correlation of colour systems between paint colour pigments and mineral render colour pigments and thus is very difficult to totally match the existing mineral finish. Therefore, it is always recommended that a physical application of the proposed colour match is applied to the render surface first to ensure a near as possible match is gained.

The existing finish should be clean and dry prior to painting. **PAREX Crylane** can be applied with a brush, roller, or suitable spray equipment. Generally, both coatings exhibit good surface coverage in single applications. However,

depending on the texture and/or colour of the existing finish, it may be necessary to apply two coats. Alternatively, a diluted coat can be applied for lightly soiled areas.

For single applications using a roller, apply the coating in vertical strokes, overlapping each stroke by half a roller width. For two coats, apply the first coat in horizontal passes and allow to dry. The second coat should be applied at a right angle to the first coat in a similar fashion to a single application.

Patching and Repairing

Any occurrence of damage, such as dents, punctures, holes, etc., is best repaired by an applicator with experience in the use of **SIKA** materials. Regardless of how good the applicator is, any repair to a render finish will be seen. Given the varying circumstances and the variety of damage that can be encountered, you may wish to contact the Sika Technical Services Department for specific information on repairs of this nature.

Refinishing

SIKA Mineral render finishes can be difficult to patch in, and any form of repair is likely to be seen. If repairs need to be completed it may be desirable to re-render the affected wall in full.

If the finish material must be closely colour matched to the existing work, it is recommended that a physical sample be provided to the Sika Technical Services Department for analysis and matching. Even then, the new finish can appear somewhat different than the original finish due to age or a difference in the texturing technique of the applicators.

If a wall surface must be refinished, it may produce a more acceptable appearance to re-surface a whole wall panel to an existing break or building line, rather than a smaller patch area which may clearly be seen.

Patching, repairing and refinishing should be left to an applicator with prior experience in the use of **SIKA** materials. The area must first be cleaned by one of the methods listed above. Secondly, on the clean and dry existing finish, a preparatory coat of **PAREX Micro Gobetis 3000** sealer should be applied onto the surface. In applying the new finish, follow the instructions given in the Sika Product Data Sheet for the specific finish and texture desired.

Flashings and Sealants

The first notice of water entry into the building should indicate a problem and should be repaired as soon as possible. EIFS systems, like other wall claddings, rely on flashing and sealants to prevent moisture entry behind the

face of the cladding. For this reason, it is good practice to periodically check the installation at these key locations:

- Window and door perimeters
- Expansion joints
- Abutments to dissimilar materials
- Penetrations, such as around fixtures, hose bibs, outlets, scuppers, etc.
- Terminations at top and bottom of wall
- Sidewall and roof line intersections

Repairs to sealant joints may require their removal and replacement. If this results in the damage of the system base coat, new base coat materials must be used in repair of the damaged area. It should be kept in mind that base coats require a minimum drying time of three days, or longer if necessary, depending on conditions, before sealant is applied to them.

The sealant manufacturer should also be consulted to ensure the compatibility of the sealants to the surfaces to which they will be applied. Special surface preparation or primers may be necessary. If the procedures involved are beyond the scope of simply removing and replacing existing sealants it is the best option to contact Sika Technical Services Department.

Lead Flashings

Always ensure that any lead flashings are treated with patination oil to seal the lead against staining the render system.

Efflorescence

For cleaning of general staining and efflorescence, **Everbuild Salt-Away** may be used. Please follow all instructions for application and handling detailed in the relevant Sika technical and health and safety datasheets. We recommend that a small inconspicuous area be used as an initial test to ensure the correct result is achieved.

General Cleaning

There are many alternative cleaning products available in the market place for cleaning of **Mineral render** finishes. Should any such product be used, it is solely up to the customer to contact the manufacturer and procure the necessary information regarding pricing, directions, material safety data sheets and other special considerations. We recommend that a small inconspicuous area be used to test the chemicals first. This will help determine a satisfactory cleaning process before applying to the entire wall.

Sika can not be held responsible for any adverse effects associated with the use of these products.

Remedial Solution for dealing with Mould and Stains onto Render Surface Finishes

Note

Before treating the whole building, always carry out a trial to an area that is less visible to ensure the proposal is suitable and provide temporary protection to plants and other vulnerable items.

System Components

1. **Surface cleaner/protection: SIKA Mould Buster**
Fungal removal and protection.
2. **Surface coating: PAREX Crylane**
3. **Surface sealer: PAREX Paraguard**
Ideal for providing lotus leaf dispersing effect and additional weather protection. Recommended for highly exposed locations or when near to coastal locations.

General Application Guidance **to be read in conjunction with the following data sheets:** SIKA Mould Buster, PAREX Crylane, PAREX Paraguard.

General Requirements

Always start the cleaning process from the base and work upwards.

Apply **SIKA Mould Buster** as a saturation coat using a spray, brush or roller to the whole wall area. Leave the applied area for a minimum period of 24 hours to allow the product to take effect. The algae/lichen/moss should turn a light brown colour, indicating that the product has killed the spores.

When the algae/lichen/moss has changed colour and the treatment has taken effect, power wash the treated surface thoroughly and allow the excess water to dissipate. Then apply a further coat of **SIKA Mould Buster** and allow to dry to ensure the surface has been fully treated and all spores have been killed.

SIKA Mould Buster is designed to kill the algae/lichen/moss and its spores but may not necessarily completely remove the stain, particularly when the surface has an open texture. This is not a failure of the product.

Additional Support Information

If a stain is still apparent, it may be appropriate to treat any small stains with a diluted solution of 1-part thick domestic type bleach to 6-part water. Apply to a small obscured

affected area using a small paint brush in a dabbing action. Allow the solution to soak into the area for a period of 5 – 10 minutes then power wash. If this has not removed the stain apply the same procedure but with a stronger solution. 1 to 5, increasing to 1 – 4 then 1 – 3 etc. to new discreet areas until such time the stain has been removed. Once the prescribed dilution has been successful, trial a larger area to ensure the desired result is achieved and then continue to treat any remaining affected areas. If a localised stubborn area is encountered, apply a stronger concentration to remove, but ensure the wall is always thoroughly washed afterwards. Avoid splashing the solution and always wear adequate safety protection.

Please note, this 'Additional Support Information' is only offered as guidance only and may not have any additional effect. It is the responsibility of the user to check compatibility of using bleach upon the surface before use. Sika is unable to offer any guarantees or suitability on the use of bleach products and suggest that proper checks are made on the product being used direct from the manufacturer before using.

PAREX Crylane

Please note that paint colour formulations and mineral render colours have no cross correlation so the only way to match a colour is to place a colour card against the render to gain the nearest match.

When used to tone in with a same colour render and applied as a diluted coat, the **PAREX Crylane** is designed to soak into the surface of the render. The benefit of this application if carried out in the correct manner will normally be enough to create an even surface finish with no further maintenance being necessary to the render finish. The only maintenance that may be required is a periodic cleaning of the render which can generally be carried using a light power wash and clean water.

Before commencing the work, ensure the colour is a close match by decanting an equal amount of **PAREX Crylane** mixed with 10% water. Dab the colour on the wall in a discreet location to ensure that the colour is acceptable. If this is the case complete a small trial area to see if the colour provides an even finish. If it does not, then reduce the dilution to 5%. Continue a trial until satisfactory cover of the marks is achieved. It may be preferential to complete two heavier diluted coats rather than one thicker less diluted coat as the intention is to get the paint to soak into the render.

Avoid applying one thick undiluted coat and creating a surface coating.

It must be accepted that the likely colour match will not be an exact match and therefore we suggest that when an area has been affected the whole elevation is always coated.

This procedure does not affect the render finish, adhesion or life expectancy.

Protective Sealer

All surfaces must be clean and suitably dry or damp but not running with water and must be free from any marks before the application of the **PAREX Paraguard** sealer is applied. Follow the preparation and application guidance issued on the **PAREX Paraguard** product data sheets applying in 1 or more coats as directed or required.

Masking

Full masking should be used to give protection to adjacent areas of work, windows, doors etc. It should be removed immediately after finishing.

Carefully remove splashes of material as soon as they happen, using water to avoid the potential of leaving residue marks. Read fully and take particular note of the product data sheets and follow the surface preparation and suitability checks in full.

The above information is offered as general guidance only and is not an exhaustive list of applications and situations and may not totally eradicate the staining effects caused by algae.

We would strongly recommend that you contact Sika Limited at an early stage to provide specific technical advice and guidance.

FAQ's

1. Should I expect the SIKA Mineral finish to crack? When should I be concerned with cracking?

Generally, no, but houses can settle over time. Whilst the final coat of mineral finish is not considered a flexible finish and sometimes, if the substrates they are applied to are brittle or move, the render may produce cracks that match the cracks in the substrate. These are normally classed as small hairline cracks that do not affect the performance of your wall but will need to be treated using the **SIKA crack repair system**. However, if the house substrate continues to move then you may need to contact a building surveyor or engineer.

2. My house has changed colour from when it was new. Is this normal?

Most products when left outdoors will change colour over time given changes in temperature and exposure to ultra violet (UV) light. While traditional render will darken with age, pre-coloured finishes will lighten as composition polymer resins changes with time. This is more apparent on darker colours.

This change in colour no way affects the performance of the render. Applying a coat of **PAREX Paraguard** will assist in prolonging the colour of your render finish.

3. What is that white powdery substance I have near the base of my render wall? How can I remove it?

This is probably “efflorescence”, also known as “alkali”. Efflorescence consists of calcium carbonate salts leached from cement-based materials when exposed to excessive, saturating moisture. Since acrylic renders are not cement based, these salts are coming from the cementitious substrate. It can be removed by following the directions outlined previously in the render maintenance section. Take care to direct lawn sprinklers or other sources of water away from render walls to help prevent this.

4. What is the dark, fuzzy growth appearing along the bottoms of the render walls near my flower beds? What can I do about it?

Shrubs and other organic materials create ideal growing conditions for these organisms. It can be prevented, or minimised, by eliminating excess moisture. Ensure irrigation systems are not directed against walls and keep plants trimmed back to allow ample light and air circulation. Remove the discolouration by following the directions outlined previously in the render maintenance section.

5. How can I change the colour of my finish?

SIKA finishes generally remain attractive for many years of service. However, if desired, mineral finishes can be coated with an acrylic based finish to either refresh or change the colour. It should be realised that acrylic coatings will alter the appearance and sheen of the original finish. This is an especially important point to consider if the paint will cover existing textured finishes. Due to the aggregate size in these finishes, some of the texture will be lost when over coating. Sika have a specific product designed to reduce this issue called **PAREX Crylane**.

The existing finish should be clean and dry prior to painting. The new coatings can be applied with a brush, roller or suitable spray equipment. Generally, both coatings exhibit good surface coverage in single applications. However, on the texture and/or colour of the existing finish, it may be necessary to apply two coats.

For single applications using a roller, apply the coating in vertical strokes, overlapping each stroke by half a roller width. For two coats, apply the first coat in horizontal passes and allow to dry. The second coat should be

applied at a right angle to the first coat in a similar fashion to a single application.

6. Do I have to seal the joints?

Mineral render installations should be checked at the following areas for cracks that can allow water behind the system:

- Window and door perimeters
- Expansion joints
- Abutments to dissimilar materials
- Penetrations such as around light fixtures, hose bibs, electrical outlets, hopper outlets, wall vents, boiler flues, etc.
- Terminations at the top and bottom of wall
- Sidewall and roofline intersections

Repairs to sealant joints may require their removal and replacement. If this results in damage to the system base coat, new base coat materials must be used in the repair of the damaged area. The sealant manufacturer should be consulted to ensure the compatibility of the sealants to the surfaces to which they are applied. Special surface preparation or primers may be necessary.

Important Information

Sika Limited is providing this information as a service and reserves the right to replace or change this information at any time. Sika Limited shall not be liable for any consequential or other damages resulting from or in connection with the application of these cleaners. No warranty, express or implied, is made of the effectiveness of these cleaning products herein described, and no waiver is made by Sika Limited of the limitations set forth in its product warranty.