WETHERBY
Wall Systems
Part of ROCKWOOL Group

O&M Manual



Masonry

Stone Wool

Silicone Render



High Rise

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This document is a Technical O&M Manual for the Masonry Stone Wool Silicone EWI System.

For general homeowner guidance, please see our Homeowners Maintenance Guide.

1.0 Wetherby Insulated Silicone Render System Information

Wetherby silicone render finishes are flexible and durable renders used as the finish coat over a high impact polymer modified base coat. HECK K+A Scrim Adhesive is applied 6-8mm thick with alkali resistant rein- forcing mesh bedded to provide further strength and anti-crack protection. The base coat is finished smooth and, when cured, HECK UG Universal Primer is brush or roller applied and then the selected finish is trowel applied to the property.



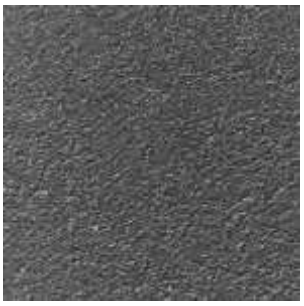
Wetherby Insulated Silicone Render EWI System

- Wetherby Insulation Bedding Adhesive (where required)
- Wetherby Stone Wool Insulation
- Initial Mechanical Fixings
- HECK K+A Scrim Adhesive @ 4-6mm
- Alkali Resistant Reinforcing Scrim Cloth
- Mechanical Fixing Through Mesh
- HECK K+A Scrim Adhesive @ 2-3mm
- HECK UG Universal Primer
- HECK SHP 4S Silicone Resin Render

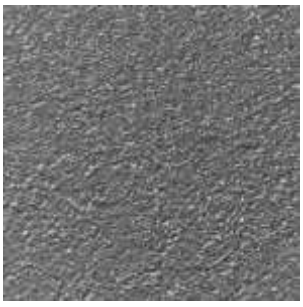
Wetherby Silicone Render Finishes: -



1.0mm 'K'



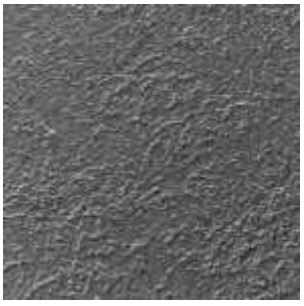
1.5mm 'K'



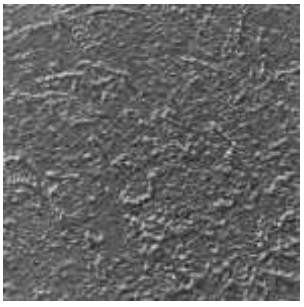
2.0mm 'K'



3.0mm 'K'



1.5mm 'R'



2.0mm 'R'

1.1 Introduction – High Rise

The Wetherby High Rise Operations & Maintenance Manual provides information and guidance for the insulated silicone render system when installed on high rise projects. Following this document guidelines will help ensure the longevity and performance of the EWI system, and allows the warranty provided for the project to remain in place upon completion of any maintenance or repair works that may be required.

Requirements

1.Any works or maintenance inspections that are carried out in accordance with this document must be completed by a recognised contractor, who are currently trained and carded by Wetherby.

2.All works or maintenance inspections that are carried out must be fully documented, including photographs and maintenance/repair reports completed at each stage of the process.

3.All repair works that are required to the Wetherby EWI system must be completed using only Wetherby materials and installed in line with section 5.0 in this document to ensure that the warranty for the project remains valid.

High Rise Maintenance Requirements

The below maintenance schedule must be strictly adhered to as a minimum to for all high rise projects to ensure the longevity and performance of the system. If the below maintenance schedule is not adhered to, the Wetherby warranty may become invalid. Project specific maintenance schedules should be provided with additional maintenance requirements.

- An initial inspection should be made within 12 months and regularly thereafter to include:
- Visual inspection of the render for signs of damage. Any cracks in the render exceeding 0.2 mm must be repaired.
- Examination of the silicone sealant around openings, service entry points and at any system terminations.
- Visual inspection of architectural details designed to shed water to confirm that they are performing properly.
- Visual inspection to ensure that water is not leaking from external downpipes or gutters; such leakage could cause damage to the rendering.

- Please note, this document must be read in conjunction with the 'Wetherby High Rise Maintenance Information' document.
- A project specific maintenance schedule should be agreed with the client specifically for this project.



2.0 Aftercare and Maintenance

2.0 Silicone Sealant

Wetherby specify a high quality, long lasting sealant to help protect the EWI systems from water ingress.

Periodic inspections must be carried out to ensure silicone sealant is in good condition, is working as intended and no water ingress can occur at junctions. During periodic inspections, should any damaged or defective sealant be observed this, should be removed and be reinstated as soon as possible with the Wetherby approved sealant to ensure the integrity of the system is maintained.

Where the existing Silicone Sealant begins to deteriorate, this should be fully removed and replaced to ensure watertightness and durability of the system.

2.1 Garden and Plant Consideration

Keep garden soil levels as far below the system as possible as soil splashing will discolour the base of the system over time. Plants, trees and creepers can cause staining of render finishes and care should be taken in the positioning of them. Climbing plants, provided they have the properly fixed trellis, will not cause any damage to the system, however some staining may be caused.

2.2 General Considerations

Metal objects should be kept away from the insulated render system and not leaned up against the system. Rust staining can soon discolour the finish and damage the system, particularly on lightly coloured system finishes.

Dripping overflows and splashes from leaking gutters and down-pipes can soon mark and spoil the render finish. Such leaks should be repaired as soon as possible to prevent water staining.

Exhaust emissions from vehicles can leave unsightly black marks on the render system and care should be taken when parking vehicles close to the rendered area.

Care should be taken when handling heavy objects, for example dustbins, near the render system. Although the system is resistant to damage, these types of objects particularly near corners can cause damage, which is visually undesirable although easily repairable.

2.3 Damage to the System

Any damage to the EWI system must be repaired immediately as per the information in this document. Any cracks exceeding 0.2mm must be investigated to assess the cause and repaired as appropriate. Damage to the topcoat should be repaired in a short time frame to prevent further damage to the area. Damage to the basecoat and insulation will require immediate repair to prevent water ingress into the system. Please see Section 5 of this document for further information on repair procedures.

3.0 Additions to the EWI System

3.1 Detailing of Additions

Carefully choose any further additions to the property that are to be added after the insulated render system is complete. Drain-off from poorly designed or poorly installed items such as canopies, lights, alarm boxes, hanging baskets, etc., will stain render finishes. Water should always be channelled away from the render surface and not allowed to streak down the render face or pool against the render. Additions creating a flat ledge are advised against as water and dirt will splash up and soak the render, creating staining and possibly damage to the render finish.

3.2 Fixtures and Fittings

Wetherby advise fixtures & fittings are installed in one of the following ways...

1) Drill out holes to the approximate size through the system back into the existing substrate and clean out any loose material. Insert Wetherby SWI-FIX tension spacers at the relevant fixing points. The fixtures may then be installed as normal but should be evenly tightened against the spacers and not the render system. Wetherby approved Silicone Sealant must be neatly applied around the spacers to ensure water penetration is prevented.

2) Install specialist insulation fixings through the EWI system into the main substrate as per manufacturer's instructions, drill a suitably sized hole and clean out the area. Install the fixing ensuring the thermal barrier is flush with the render.

   Screw in the fixing and seal using Wetherby approved Silicone Sealant where required. Mount the fixture and hand tighten the screw. (Wetherby approved fixings must be used, please contact the technical department for further information).

3.3 Satellite Dish Installation

If fitting a satellite dish to completed areas of the external wall insulation system, please use the fixing method as above (section 3.2) ensuring the dish is securely fixed back to the substrate and movement is restricted. Specialist SWIFIX spacers and appropriate fixings are available from Wetherby. All fixings must be suitably sealed with Wetherby approved Silicone Sealant.

3.4 Addition of Metalwork

Any metalwork to be added to the building such as clothes line hooks, should be well painted or otherwise protected if they are made from a ferrous metal. Attachment to the building should be made with fixings which penetrate through the system and into the substrate, for example sleeved bolts or extended length fixings. These should be sealed at their abutment with the system using Wetherby approved Silicone Sealant.

3.5 Pipes and Vents

Any additional pipes or vents which penetrate the system should be passed through holes in the insulated render (max. 5mm larger than the pipe diameter), finishing proud of the render system. Wetherby Seal Tape and approved Silicone Sealant can then be used to seal between the pipes and system ensuring water penetration is prevented. When coring out the system to install pipes and vents, a pilot hole should be drilled in to out, and then a full core hole drilled out to in, to reduce damage to the system as much as possible.

3.6 Replacement of Existing Windows

Where doors or windows are to be replaced after installation of the system, it is always the preferred option to replace internally to minimize damage to the EWI. Care must be taken not to damage the system in the reveals on removal or replacement and the new door / window will need to be resealed against the system, potentially involving patching in the render but always using Wetherby approved Silicone Sealant to ensure long term water tightness. Any damage to the insulated render system should be repaired in line with Wetherby guidance.

3.7 Addition of New Doors / Windows

Where new doors, windows or other openings are to be cut into the structure, the system must be layered back by a minimum of 150mm per layer of material away from the opening. New Wetherby materials should be applied in sequence neatly back to the new fitment or opening. See the Wetherby Patch Repair guide (Section 5.0) for further information.

3.8 Canopies, Outhouses and Lean-Tos

Any additions to the property to be fixed to the EWI system, for example canopies, outhouses or lean-tos, should be sealed where it abuts the system using Wetherby approved Silicone Sealant. Water penetration into the system must be prevented at all times. Appropriate fixing methods should be used as per Wetherby guidance. The Wetherby Detailing of Additions guidance (Section 3.1) at the start of this section should be followed, following advice on water runoff and staining.

3.9 Extensions and Conservatories

Any additions requiring the EWI system to be cut back should be completed by layering back each layer of material by a minimum of 150mm per layer. Please see the Wetherby Patch Repair guide (Section 5.0) for further information. The system will need to be re- sealed against the new substrate or completed with use of a stop bead to fully seal the system. The roof abutment must be completed as per Wetherby standard detail drawings, please contact the Wetherby Technical department for further information.

4.0 Ground Source Heat Pumps

Where a Ground Source Heat Pump is installed to a home incorporating a Wetherby EWI system:

1 – Fix correctly – as per Fixtures and Fittings (section 3.2)
2 – Core hole – a pilot hole should be drilled in to out, and then a full core hole drilled out to in (section 3.5)
3 – Fully seal – Wetherby Seal Tape and approved Silicone Sealant should be used to seal between pipes and EWI system, ensuring the EWI system remains fully watertight (section 3.5)



5.0 General Maintenance and Cleaning of the Silicone System

5.1 Pressure Washing

Where staining has occurred, a pressure wash can be used to clean the face of the silicone render system. The pressure washer should be set at 100bar maximum and used no closer than 1 metre away from the render to ensure the surface is not damaged during the cleaning process. A sample panel should always be completed first to assess the impact and potential damage from pressure washing.

5.2 Dust Marks / Minor Aesthetically Damaged Areas

Mild soapy water may remove small areas of cement dust, soil, scuff marks etc., however it must be stressed that this action may also worsen the problem. A small test panel should always be completed first.

Small splashes / marks should be carefully removed with a knife or similar sharp instrument. Care should be taken not to damage the render. Make good with silicone texture / paint to match the existing finish.

Larger areas of aesthetically damaged render may require repairs as above followed by a full coat of HECK SILCO FF Silicone Façade Paint. Full elevations should be coated to prevent the appearance of patching.

5.3 Indentations and Damaged Basecoat

Areas where the topcoat / basecoat has been damaged resulting in indentations to the system, the area will need to be re-coated. This will be completed by removing the damaged layers in stages and reapplying the whole system using the basecoat and mesh followed by the primer and silicone finish, in line with the Wetherby Patch Repair Guidance (Section 5.0).



6.0 Patch Repair

Records and photographs should be kept of damaged areas and the various stages of the repair process.
Repairs should be completed by a Wetherby recognised contactor.





1. Example damage to system.
2. Grind back the Wetherby Silicone Render topcoat and primer to a minimum of 150mm from the exposed insulation.
3. Square off the area, using a chisel where required, to leave a neat square or rectangle in the system.




4. Remove all loose / damaged basecoat taking care not to disturb the alkali resistant mesh.
5. Carefully cut out damaged insulation in a neat square / rectangle ready for new insulation to be cut and inserted.
6. Cut off any mechanical fixings level with the original structure. Remove any bedding adhesive from the substrate and clean area ready to receive new product.





7. Cut insulation to fit tightly against existing insulation, using bedding adhesive where required, as per the existing system.
8. Fill any gaps around the insulation larger than 2mm with Stone Wool slithers, ensuring no gaps.
9. Drill and install Wetherby approved fixings ensuring the board is securely held and supported. A minimum ratio of 8 fixings per m² must be used.





10. Cut Wetherby Alkali Resistant Mesh to suit the patch, ensuring the mesh laps onto the existing exposed basecoat.
11. Apply Wetherby Scrim Adhesive to the insulation board and lap onto existing scrim adhesive with a 1-2mm tight coat of adhesive.
12. Bed Wetherby Alkali Resistant Mesh into scrim adhesive, lapping over the existing scrim adhesive and mesh.





13. Smooth adhesive using a sponge float where appropriate, ensuring all mesh is embedded in the basecoat and is not visible. Allow to fully dry.

14. Apply tape around the patch to protect the existing silicone render, creating a tape joint between the new and existing silicone.

15. Apply primer to the basecoat as per the standard silicone installation. Allow to fully dry.





16. Apply silicone render to the area, installing flush with the existing silicone render.

17. Rub up the silicone render with a plastic trowel to texture the surface and match the existing render.

18. Remove tape whilst the silicone render is still wet.





19. Use a paint brush to blend the newly applied silicone render into the existing finish, removing any excess render.

20. Allow render to fully dry.

N.B. Patching the silicone render will usually be noticeable as replicating the same finish and texture with no noticeable joints is extremely difficult to achieve.

Applying HECK SILCO FF Silicone Façade Paint over the entire elevation is the only way to ensure patching is not visible.

Failure to action the repair to the EWI system in event of damage, water ingress or failure of sealant in accordance with this manual may result in the system guarantee becoming invalid. Should you have any queries regarding the above items please contact the Wetherby Technical Department.

7.0 Redecoration of Silicone Render Systems

HECK SILCO FF Silicone Façade Paint

The Wetherby Silicone Render System can be redecorated by applying HECK SILCO FF Silicone Façade Paint over the existing render.

The HECK SILCO FF Silicone Façade Paint is the favored finish as these have been thoroughly tested and have an extensive track record of use with the silicone system. Overcoating in this way will retain the systems benefits such as prolonging the low maintenance finish and durability of the system whilst also retaining the moisture vapour permeability.

HECK SILCO FF Silicone Façade Paint can be tinted to the same colour as the original silicone render, although patching the system will be noticeable due to different textures and weathering of colours. It is recommended full elevations are coated to provide a consistent and as good as new appearance to the façade.

For further information please see the following product information.



7.1 HECK SILCO FF Silicone Façade Paint

HECK SILCO FF Silicone Façade Paint is a highly water repellent silicone resin emulsion paint. It is a high-quality, eco-friendly and open porous coating providing increased water resistance whilst still allowing the insulated render system to breathe. Suitable for a wide range of substrates, this paint offers a refreshed, good as new appearance to any render system and is a great option for surrounding fixtures or features.

Properties

Excellent water repellent properties. Algicidal and fungicidal properties providing additional protection. Can overcoat cracks up to 0.2mm in width (providing there are no structural / system stability issues). Excellent UV resistance. Excellent vapour permeable properties, allowing the system to breathe.

Suitable Substrates

- Wetherby Silicone Render
- Wetherby Polymer Modified Renders
- Older Renders
- Natural Stone
- Brick
- Concrete





Substrate Preparation

Check render for soundness and make repairs to any damaged areas.

Remove old defective paint coatings.

Cover surrounding glass, metal, ceramics, natural stone etc. before applying HECK SILCO FF Silicone Façade Paint Silicone Paint.

Treat areas of surface attacked by fungi, algae or moss with Wetherby Biocidal Wash.

Clean surface to be painted ensuring no loose or friable materials remain. A jet wash may be used to thoroughly clean the substrate where required.

Apply a test panel to check the shade before painting entire area.

Application

Coating can be applied by brush, roller or airless spraying. Complete with one method only to ensure a uniform finish. The first coat should be allowed to fully dry before applying a second coat which will remove all application marks and shadowing.

Curing

Protect freshly applied coating from direct sunlight, strong winds, rain and frost.

Wait for at least 12 hours before performing the next working step.

High humidity or wet conditions may extend drying times.

TECHNICAL DATA	
Product	HECK SILCO FF Silicone Façade Paint
Pigments	Fade resistant pigments
Density	1.40 - 1.55 g/cm3
Colours	Wide selection of colour ranges available including NCS and RAL references
Material Consumption	0.3 - 0.4.l/m2 in two coats
Packaging	12.5 Litre drums
Storage	Frost–free and cool in original container. Storage time no longer than 6 months.

N.B. No colour guarantee can be given if shade and surface structure changes over time, influenced by weather or atmosphere. A test surface should be used to test and compare the shade before application of the product.

8.0 Wetherby System Products

Wetherby Wall System products and ancillary items can be purchased through our trade counter, please contact:

Telephone: 0800 1978821
Email: tradecounterhq@wall-systems.co.uk

Each Wetherby trade counter provides a bespoke collection service and offers a wide range of leading branded products along with experienced members of staff who are on hand to help guide you when choosing the right materials for the job.



8.1 Wetherby SWI-FIX Spacers



Having invested in external wall insulation to enhance a property, it is important to ensure guarantees are protected through the correct installation of fixtures and fittings. Any items installed must not damage or crush the EWI system or allow water ingress into the system.

The Wetherby SWI-FIX products are an easy solution for fixtures such as hanging baskets, external lights, hose reels, satellite dishes, alarms, etc.

Installation Guide:



Start with SWI-FIX



Mark the wall



Drill 16mm hole



Measure depth to substructure



Cut tube to length



Place rubber & insert tube



Insert plug, screw & fix through EWI



Installation complete

8.2 Wetherby Biocidal Wash

A highly effective biocidal solution which effectively removes algae, mould and lichen.

Wetherby Biocidal Wash is suitable for a range of substrate materials including: Brick, tile, concrete, stone and cladding. As well as a silicone, acrylic, mineral and polymer modified render finishes.

An environmentally friendly cleaning solution, safe to plants, animals and humans.

- Kills Algae, mould and lichen (Approx 1 Year)
- Leaves residual protection
- No rinsing required
- Environmentally friendly option







Although many render incorporate algae resistant properties, substrates can eventually become susceptible to micro-organisms which located in very green or damp areas.

Wetherby biocidal Wash contains a patented mix of bodies which can be used to treat affected render systems and substrates.



Application: Apply by brush, roller or back-pack sprayer.

Note that substrate must be completely dry before application.
(Please contact Technical for further information)

Available as a 5 litre concentrate with coverage of approx.500m².

**Based on Silicone or Acrylic Render at a dilution rate of 9:1*

Porous surfaces or reduced dilution will decrease coverage

**More than x1 application may be required. For severe areas of algae, jet washing may be required. Contact Wetherby for further information.*

9.0 Wetherby Contact Information

Technical Department

For technical queries on the operations and maintenance of the Wetherby Stone Wool Silicone Render System please contact our technical department on the details below:

Technical Helpline: Tel: 0800 107 3299 E-mail: technical@wall-systems.co.uk

Trade Counter

For Wetherby products contact our trade counter on the details below:

Telephone: 01942 528354 Email: tradecounter@wall-systems.co.uk



*Main Depot

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1 Kid Glove Road, Golborne
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Main Tel: 01942 717100
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Opening Hours: 07.30 – 16.30
Tel: 01943 901 628