

Operations and Maintenance Manual

Masonry - Enhanced EPS & Silicone Render System

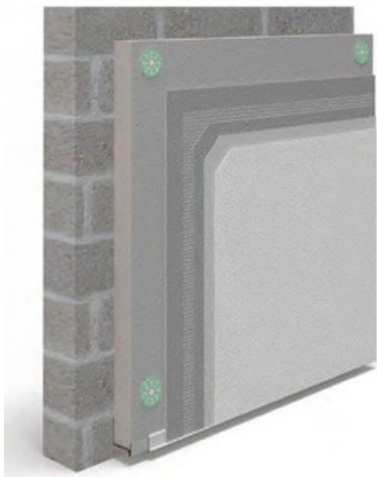


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Wetherby Insulated Silicone Render System

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. The base coat is applied 6-8mm thick with alkali resistant reinforcing mesh bedded to provide further strength and anti-crack protection. The base coat is finished smooth and, when cured, a WBS primer is brush or roller applied and then the selected finish is trowel applied to the property.



WBS Insulated Silicone Render System

- WBS Enhanced EPS Insulation Board.
- WBS Scrim Adhesive 6-8mm.
- WBS Alkali Resistant Reinforcement Mesh bedded into the scrim adhesive.
- WBS Primer.
- WBS Silicone Finish.

Wetherby silicone render finishes:-



1.0mm 'K'



1.5mm 'K'



2.0mm 'K'



3.0mm 'K'



1.5mm 'R'



2.0mm 'R'

Wetherby Insulated Silicone Render System

2.0 Aftercare and Maintenance

2.1 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 WBS approved sealant to ensure the integrity of the system is maintained.

2.2 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.

2.3 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 park-ing 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.

2.4 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.

Wetherby Insulated Silicone Render System

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 dash render (max. 5mm larger than the pipe diameter), finishing proud of the render system. Wetherby approved Silicone Sealant can then be used to seal between the pipes and system ensuring water penetration is prevented.

Wetherby Insulated Silicone Render System

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 WBS 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 General Maintenance and Cleaning

4.1 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.

4.2 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 WBS Silicone Paint. Full elevations should be coated to prevent the appearance of patching.

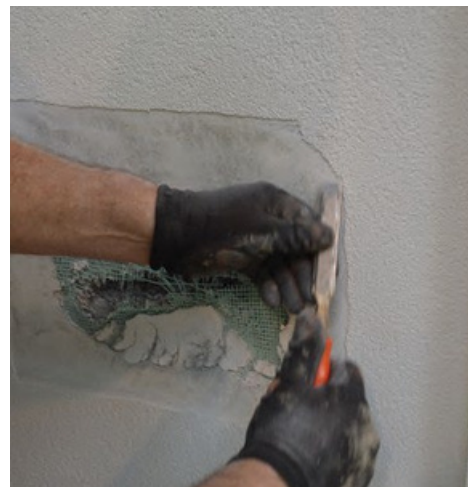
4.3 Indentations and Damaged Basecoat

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).

Wetherby Insulated Silicone Render System

5.0 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 contractor.



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 reinforcing 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.

Wetherby Insulated Silicone Render System

Patch Repair



7. Cut insulation to fit tightly against existing insulation, using bedding adhesive where required, as per the existing system.
8. Foam fill any gaps around the insulation larger than 2mm and allow to fully cure before applying Wetherby Scrim Adhesive.
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.

Wetherby Insulated Silicone Render System

Patch Repair

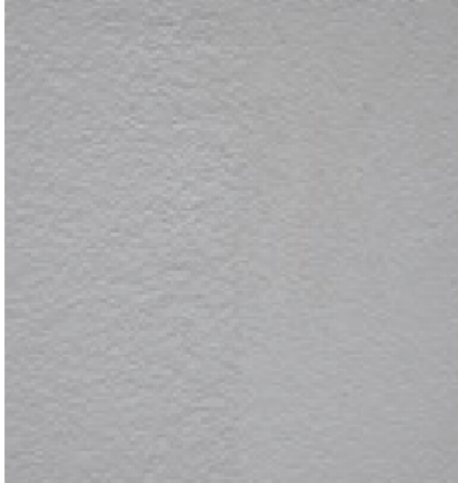


13. Smooth adhesive using a sponge float where appropriate, ensuring all mesh is embedded in the basecoat and is not visible. Allow to fully dry.
14. Apply tape around the patch to protect the existing silicone render, creating a tape joint between the new and existing silicone.
15. Apply primer to the 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.

Patch Repair



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 WBS Silicone 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.

Wetherby Insulated Silicone Render System

6.0 Redecoration of Silicone Render Systems

Wetherby Silicone Paint

The Wetherby Silicone Render System can be redecorated by applying Wetherby Silicone Paint over the existing render. Wetherby Silicone Paint is the favoured 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.

Wetherby Silicone 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.

The Wetherby Silicone Paint is suitable for use with the Wetherby Silicone Render System.

For further information please see the following product information.



Wetherby Insulated Silicone Render System

6.1 Wetherby Silicone Paint

Wetherby Silicone 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.

Silicone Paint is to be used on jobs under 11m only. For jobs over 11m please contact WBS Technical.

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 WBS Silicone Paint.

Treat areas of surface attacked by fungi, algae or moss with WBS 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.



Wetherby Insulated Silicone Render System

6.1 Wetherby Silicone Paint

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	Wetherby Silicone Paint
Pigments	Fade resistant pigments
Density	1.40 - 1.55 g/cm ³
Colours	Wide selection of colour ranges available including NCS and RAL references
Material Consumption	0.3 - 0.4 l/m ² 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.

7.0 Wetherby System Products

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

Telephone: 01942 528354

Email: tradecounterhq@wbs-ltd.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.



7.1 Wetherby SWI-FIX Spacers



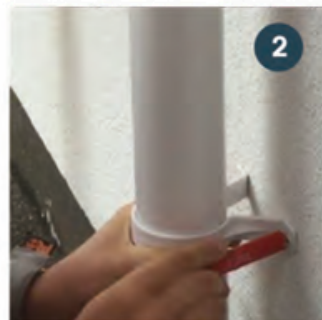
Having invested in external wall insulation to enhance a property, it is important to ensure guarantees are protected through the correct installation of fixtures and fittings. Any items installed must not damage or crush the EWI system or allow water ingress into the system.

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

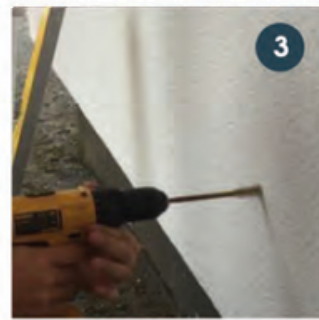
Installation Guide:



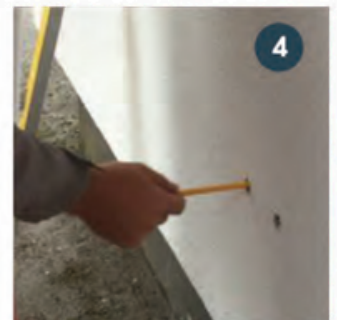
Start with SWI-FIX



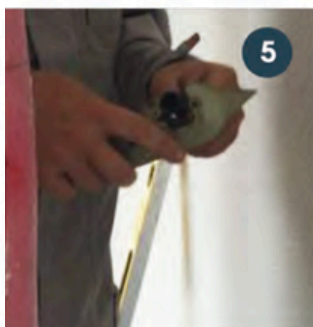
Mark the wall



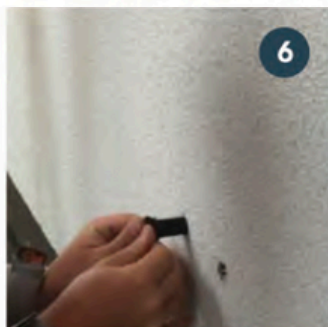
Drill 16mm hole



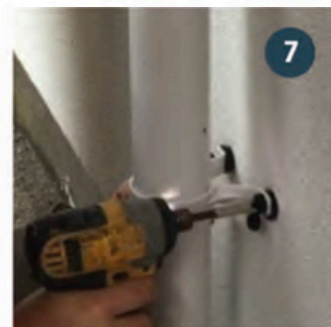
Measure depth to substructure



Cut tube to length



Place rubber & insert tube



Insert plug, screw & fix through EWI



Installation complete

7.2 Wetherby Biocidal Wash

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

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

WBS Biocidal Wash contains a patented mix of biocides which can be used to treat affected render systems and substrates.

Independently Tested: ASTM Standards 5589 Anti-Algal/ 5590 Anti-Mould.



Application: Apply by brush, roller or back-pack sprayer.
Note that the substrate must be completely dry before application.
(Please contact technical for further info).

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.*

7.3 Wetherby Render Protector

A unique highly water repellent coating providing superior protection against algae, mould, pollution, staining and dirt.

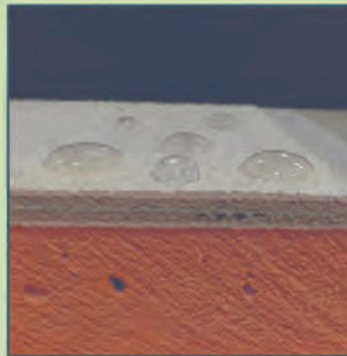
Wetherby Render Protector is suitable for a range of substrate materials including silicone, acrylic, mineral and polymer modified renders, tile and brick.

An ideal solution for protecting facades located in polluted and damp areas or buildings situated in highly exposed settings. These type of projects can often be more susceptible to staining.

The WBS Render Protector is only suitable for use on buildings up to 11m.

WBS Render Protector is a low-film build coating to produce outstanding protective properties;

- Improves weather resistance.
- Reduces dirt pick up.
- Translucent coating.
- Protects against algae, mould and lichen.



example of beading



algae on brick

WBS Render Protector is vapour permeable, allowing the system to breath whilst producing a highly water resistant surface: creating a dry environment algae cannot survive on. The properties also conduct any static, reducing dirt attraction to the surface

Independently Tested: ASTM Standards 5589 Anti-Algal/ 5590 Anti-Mould achieving 5 years minimum life expectancy.



Application: Applied by roller in a single full coating over the existing render system; can be used on multiple substrates to improve water resistance & dirt repellence, e.g brick, tile & timber.
(Please contact technical for further info).

Available in a 5 litre container with coverage of approx. 50m² per container.

Based on Silicone/Acrylic render. Porous surfaces will reduce coverage.

8.0 Wetherby Contact Information

Technical Department

For technical queries on the operations and maintenance of the WBS Insulated Silicone Render System please contact our technical department on the details below:

Technical Helpline:

Tel: 08458 382380

E-mail: info@wbs-ltd.co.uk

Trade Counter

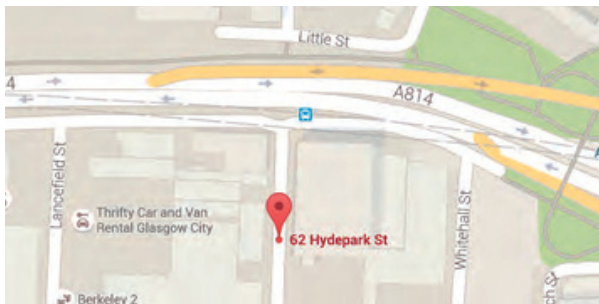
For Wetherby products contact our trade counter on the details below:

Telephone: 01942 528354

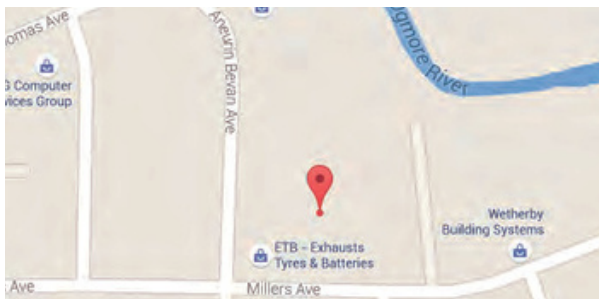
Email: tradecounterhq@wbs-ltd.co.uk



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Distribution Depot (Scotland)
62 Hydepark Street
Glasgow
Lanarkshire
G3 8BW
Opening Hours:
Monday - Thursday: 07:30 - 16:30
Friday: 07:30 - 14:30
Tel: 0141 221 8115
Fax: 0141 847 0767



Distribution Depot (South Wales)
Unit 17A
Brynmenyn Industrial Estate
Millers Avenue
Bridgend
CF32 9TD
Opening Hours: 07:30 - 16:30
Tel: 08450 946397
Fax: 08450 946398