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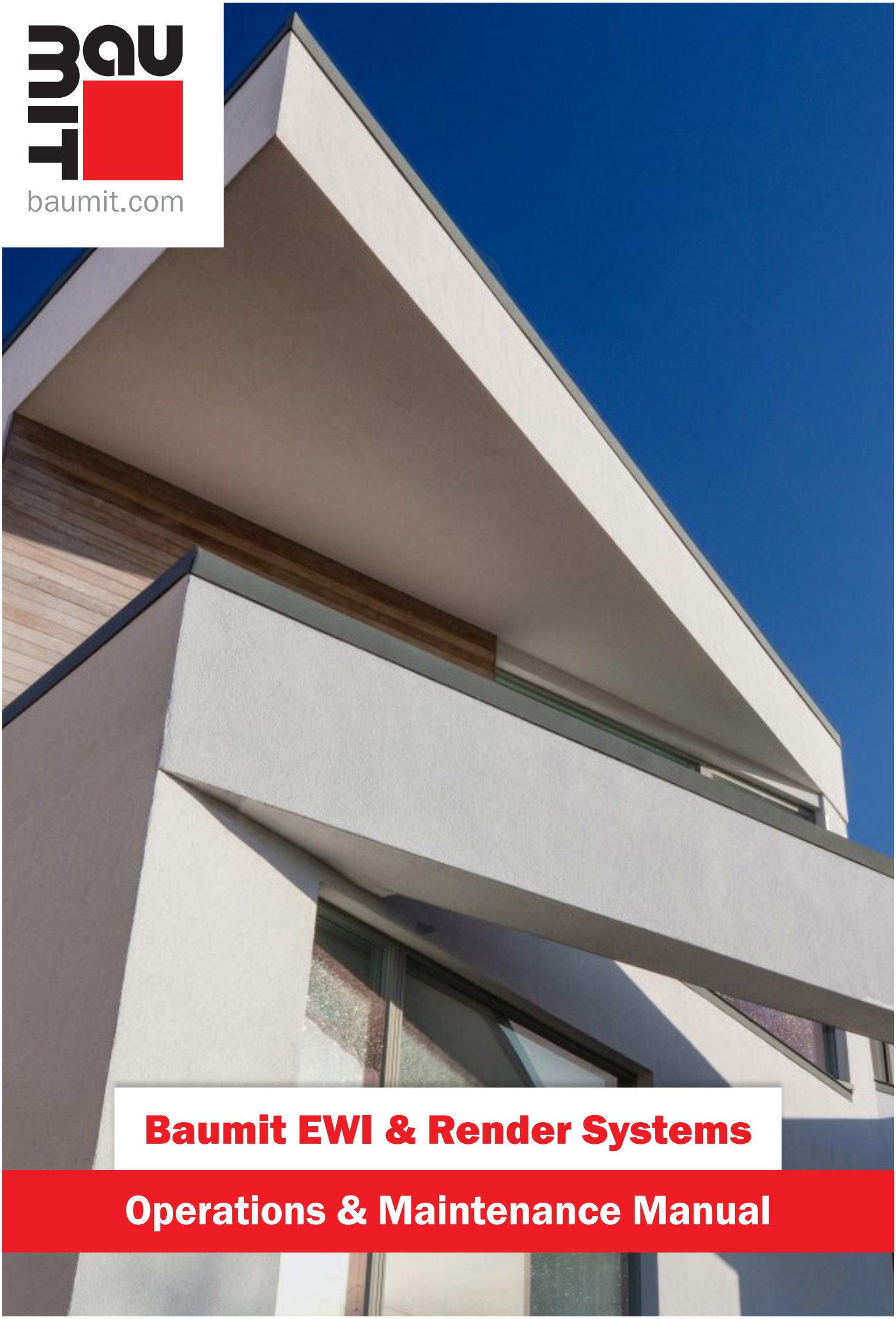

Baumit EWI & Render Systems

Operations & Maintenance Manual

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Introduction

Baumit Render systems are developed and designed to last ‘for the life time of the building’. The only way this can be achieved is with the correct design, installation and finally the up keep of the façade, over time.

It is advised that the homeowner undertakes regular visual checks (typically every 6-12 months) of the system to check on any noticeable changes to the appearance of the render, dependent on the environmental conditions of the specific site location. We recommend keeping a record of dates of inspection, using the Inspection Record at the rear of this document.

Past experiences show that render system failures are down to inadequate design, installations, finishing (including weatherproofing) and maintenance after completion.

This document will detail the best ways in which to get the best, and longest lasting performance out of your Baumit Render System.

- EWI System Overview
- Aftercare & Maintenance
- Render System Cleaning
- Adding Fixtures & Fittings
- Render System Renovation
- Technical Approvals
- KIWA
- NSAI cert 09/0336
- ETA
- In addition, all system components are fully certified to the relevant EN Standards

NSAI

BDA Expert Centre

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EWI System Overview

Baumit External Wall Insulation systems come in a variety of insulation types, such as EPS (Polystyrene), Mineral Wool, Phenolic Foam, Wood Fibre and a unique, vapour permeable EPS insulation board called Baumit OpenTherm.

The insulation slabs are both adhesively fixed and mechanically fixed to ensure the highest level of performance and safety.

Similar to a Baumit EPS EWI system, application onto Insulated Concrete Form (ICF) structures follows the same application procedure as on EPS EWI systems.

The products used within the Baumit EWI systems are flexible and long lasting. The high polymer content in the basecoats and adhesives give the material great flexibility, strength, and workability when it comes to installing.

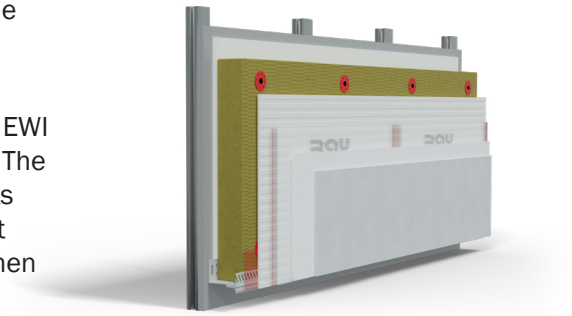
Within the basecoat material which is applied at approximately 6-8mm thick, a glass fibre reinforcement mesh is embedded into the top third to give additional strength in the basecoat to aid with reducing the chance of cracking.

Once the basecoat has cured, a primer coat is then painted on. This is to help control the suction between the basecoat and the top coat to allow for the best possible finish, of the top coat. Baumit primers can be tinted to the same colour as the top coat which is highly advised as this can also help with any 'grinning through' of the basecoat.

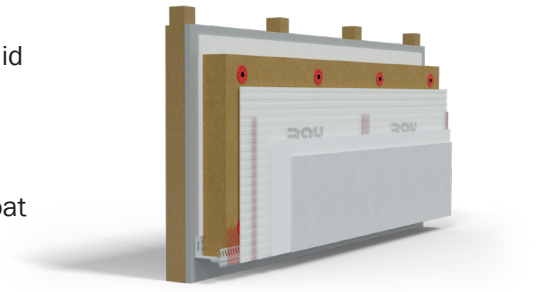
The desired top coat is then applied to give one full uniform finish. Baumit top coats come in a range of over 1,000 colours in 4 different textures: 1mm, 1.5mm, 2mm and 3mm.

Consideration to the most appropriate top coat for the location of the property is essential.

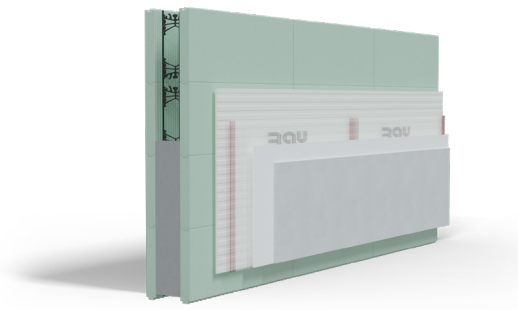
EPS on Brick



Steel Frame Cement Board Mineral Wool



Cement Board Wood Fibre



ICF

Aftercare & Maintenance

Sealing the render system

Once the render system has been installed and given sufficient time to cure, making the system weather proof is fundamental to ensuring the life span of the system. A suitable silicone sealant that comes with a manufacturer's 5-10 life expectancy should be applied at all stop ends/ abutments to give a fully sealed system.

All areas where a silicone sealant has been applied should be checked at the same time as the homeowner's visual inspection to the render. If there are any signs of wear/damage, the sealant should be removed and replaced with a suitable silicone sealant.

General considerations

Care should always be taken to not damage the face of the render system. Dust bins, tools, wheelbarrows etc can cause unsightly damage to the render system. Scrapes, dents, cracks etc can be very difficult to repair and to 'patch in' to the existing surface.

To reduce the level of splash back from the ground from when it rains, it is advisable to have a French Drain installed around the perimeter of the building.

The DPC should either be located or artificially created in accordance with the system design. This is crucial to prevent standing water from bridging into the system, resultingin system failure.Smoke and exhaust fumes can cause black marks on the system. Make sure that when parking vehicles or having an open flame around the building, that they are kept an appropriate distance away from the walls.

Detailing is especially important on a render system when it comes to keeping the façade clean. Consistent dripping/ running water onto a render system will cause it to stain. Repairs should be made to any affected areas as soon as they become apparent.

Keep metal objects from direct contact with the façade as rust stains can appear and cannot be removed.

If any damages occur to the EWI/Render system, it should be repaired immediately. Cracks in the top coat that are over 0.2mm must be inspected to determine the root cause. This should happen as soon as possible due to potential water/moisture ingress through the cracks. Any damage to the basecoat &/or insulation must be repaired immediately for the same reason of potential water/moisture ingress. Water ingress due to poor finishing and detailing will destroy the render system and cannot be patch repaired. It can lead to a full system failure and the need to strip off and reinstall the entire system.

The images demonstrates what can happen if the system is not finished and sealed properly at ground level, windows, and fixtures.

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Render System Cleaning

Silicone & Acrylic based render systems can be cleaned using a pressure washer at no closer than 1m away from the wall. Pressure washing is effective for when there is a build up of dust/dirt, on the façade. It is always recommended to complete a small area, in a discreet location first to assess the effectiveness & also to ensure no damage will occur.

Warm soapy water is another option for cleaning smaller areas of dust/dirt, scuff marks etc. Complete a small test area first to ensure no damage will occur.

For areas where there has been a build up of algae/natural growth on the walls, Baumit FungoFluid can be used to treat the algea growth prior to conducting remedial works.

The final option is applying a full covering coat of Baumit Silicone/Acrylic Paint or similar approved cleaner (contact Baumit team for details).

A full elevation should be painted to avoid leaving patchy areas (a small test patch is advised before undertaking any extensive repairs/re-decorating).

Always follows the information and guidance within the Product Data Sheets available from Baumit.

Adding Fixtures & Fittings

When selecting any additions to the façade of the building, such as lighting, down pipes, outdoor hose reel etc, care should be taken in choosing what is suitable, due to weight. Detailing also remains a very important aspect of adding any fixtures to the EWI system.

Avoid installing any fixtures that have flat edges as they could lead to having a 'shelf' effect where water could sit and stain the render system. It can also allow water to splash back up the wall causing further staining and damage.

Water should always be able to run off of a surface and away from the rendered face of the wall.

When installing additional fixtures to the EWI system, Baumit Spiral Anchors should be used. These will allow fixtures of up to 3kg to be installed.

For heavier fixtures, heavy duty fixings should be used that can be fixed through the EWI system and into the main substrate of the building.

Any additions to the façade must always be sealed with a suitable silicone sealant to ensure the EWI system remains completely water tight.

Regarding the addition of any metalwork, as previously mentioned, metal can cause rust stains on the render, and they cannot be removed once bled into the render top coat. Any metalwork that is going to be added should be well treated with an anti-rust paint prior to installation.

Baumit Spiral Anchor.
Holds weight up to 3kg

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Render System Renovation

As like everything that is exposed to the outdoors, render systems can become a little tired looking, over time.

When it comes to redecorating the render system, it's extremely straightforward in terms of products required.

Using Baumit Paint (SilikonColor/ StarColor/PuraColor/SilikatColor) the render system can be over-painted. If there has been a build-up of dirt/algae, follow the cleaning process, as previously mentioned in this document.

Once the façade is cleaned as best as possible, ensure that the surface is solid and not dusty/loose/friable. If the condition of the existing render top coat is good, a direct application of two coats of one of the Baumit paints can be applied.

When applying a fresh coat of paint or top coat, it is strongly advised to apply a small test patch in a discreet area, in case of colour variances from the older render and the new.

For application guidelines, please refer to the product data sheet which is available on the Baumit UK website.

Premium Silicone Paint to go over Baumit StarTop

Premium Acrylic Paint to go over Baumit PuraTop

Silicone Paint to go over Baumit SilikonTop

Breathable silicate Paint to go over Baumit SilikatTop

Maintenance Guidelines

Regular inspections must be made over the life of the system. The system shall be inspected and maintained in accordance with the Certificate holder's instructions, as detailed in the Repair and Maintenance Method Statement, which is incorporated into the Building Owner's manual, where appropriate.

- Visually inspect the render and architectural details for signs of damage or water ingress (at least annually, though more regular inspection may be required dependent on site specific environmental conditions).
- Necessary repairs must be carried out immediately and must be in accordance with the Certificate holder's instructions to prevent deterioration or damage, and to protect the integrity of the system.
- Sealants shall be subject to regular inspection (at least annually, though more regular inspection may be required dependent on site specific environmental conditions).
- Sealants should be replaced as required and fully replaced every 18 to 20 years to maintain performance.
- Synthetic finishes may be subject to aesthetic deterioration due to exposure to UV light. They should be re-painting every 18 to 20 years to maintain appearance.
- Care should be taken to ensure that the synthetic finish used is compatible with the Certificate holder's 3rd party certification including NSAI System Certificate No. 09/0336 / Baumit 60 External Insulation Systems
- The original system and that the water vapour transmission or fire characteristics are not adversely affected.

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Baumit Render System Inspection Record

Date of inspection	Inspection conducted by	Condition of render finish	Condition of silicone seals	Notes

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Date of inspection	Inspection conducted by	Condition of render finish	Condition of silicone seals	Notes

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Baumit Render System Inspection Record

Date of inspection	Inspection conducted by	Condition of render finish	Condition of silicone seals	Notes

The person conducting the inspection confrms the findings, conditions and reported issues correct at the time the inspection was conducted.

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