



# MR1 Render System Application Guide

## MR1 Monocouche One Coat Render

Substrate - Concrete blockwork

### MATERIALS IN THIS GUIDE:

- ecorend XR1 Fungicidal Wash
- ecorend S10 Bonding Primer
- ecorend FX1 Fibre Reinforcing Mesh
- ecorend PVC Beads
- ecorend MR1 Monocouche One Coat Render

Project: .....

Main Contractor: ..... Contact: .....

Applicator: ..... Contact: .....

Architect: ..... Contact: .....

Materials Supplier: ..... Tel: .....

### La Roc Registered Company Business Accreditation

*This Application Guide should be read in its entirety, as it contains important information regarding pre-start installation and application of the system. It includes information on the desirable weather conditions for application, storage, protection and curing advice for the system. Please note, it is the responsibility of the installing contractor to form the project specific Method Statement that defines the appropriate Schedule of Works to reflect the project criteria. If any operations do not seem applicable, or if a required operation is not included, clarification should be requested from the Design Engineers or La Roc.*



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## AN INTRODUCTION TO THE MANUFACTURER

### MATERIALS MANUFACTURER:

La Roc Building Solutions Ltd  
Dalton Industrial Estate  
Dalton  
North Yorkshire  
YO7 3HE

T 01845 578 555  
F 01845 578 777  
E [technical@la-roc.co.uk](mailto:technical@la-roc.co.uk)

[www.ecorend.co.uk](http://www.ecorend.co.uk)



**La Roc is one of the UK's largest independent manufacturers of performance building products, with a claim to over 45 years of product innovation and manufacturing experience. We have pioneered polymer renders in the UK from the early 1970s and pride ourselves on being a progressive company, and a manufacturer of the highest quality.**

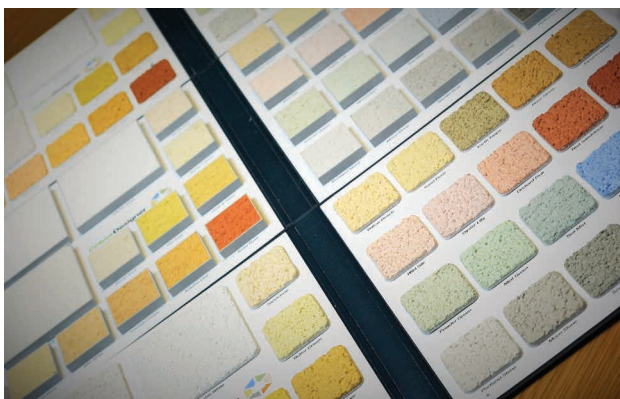
Our ecorend Through-Coloured Render Systems will guard buildings from extreme UK weather conditions throughout the year – protecting from constant attack by water, frost and sun during the lifetime of the building. They are formulated using the most advanced raw materials available in the world. They are scientifically developed to the most exacting standards, and are rigorously tested. Not only are they designed to shield the building from weather, but they also add to the beauty of the design.

### GUARANTEED QUALITY

Quality is our passion, and all our products are proven to work in the most demanding conditions. All carry EN approvals and conform to the relevant BS Standards for performance and quality. These, together with a rigorous and independently audited internal ISO 9001 system, guarantee excellence.

### PROVEN PRODUCT PERFORMANCE

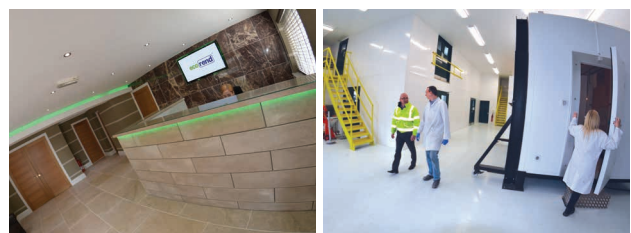
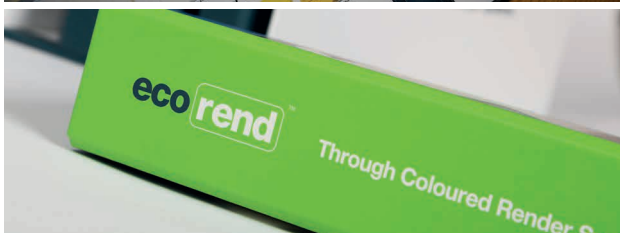
Our products are the best performing render systems available in the market. Each product carries a Declaration of Performance stating its category. Independent test reports are also available from the British Board of Agreement and Lucideon. Our confidence is based on our experience, independent testing and having the most advanced render development centre in this country.



### EXPERT TECHNICAL SUPPORT & ADVICE

*We provide constant and up-to-the-minute technical support based on decades of practical and technical experience.*

*Our team of talented specialists are there to support your needs, whether that is for day-to-day advice on application, or for detailed specification back-up.*



MR1 MONOCOUCHE RENDER PRODUCT INFORMATION

MR1 Monocouche Render One-Coat



Product Information

MR1 Monocouche One Coat Render is a high performance polymer modified water repellent through-coloured, scratch finish render. This product has been designed to have excellent workability and finishing time properties and can be applied by hand or spray. The product's through-colour and one coat characteristics allow fast application with a low maintenance attractive stone looking finish.



Water Repellent



Suitable for Spray Application



High Adhesion



Highly Polymer Modified



Long Term Protection & Low Maintenance



Enhanced Product



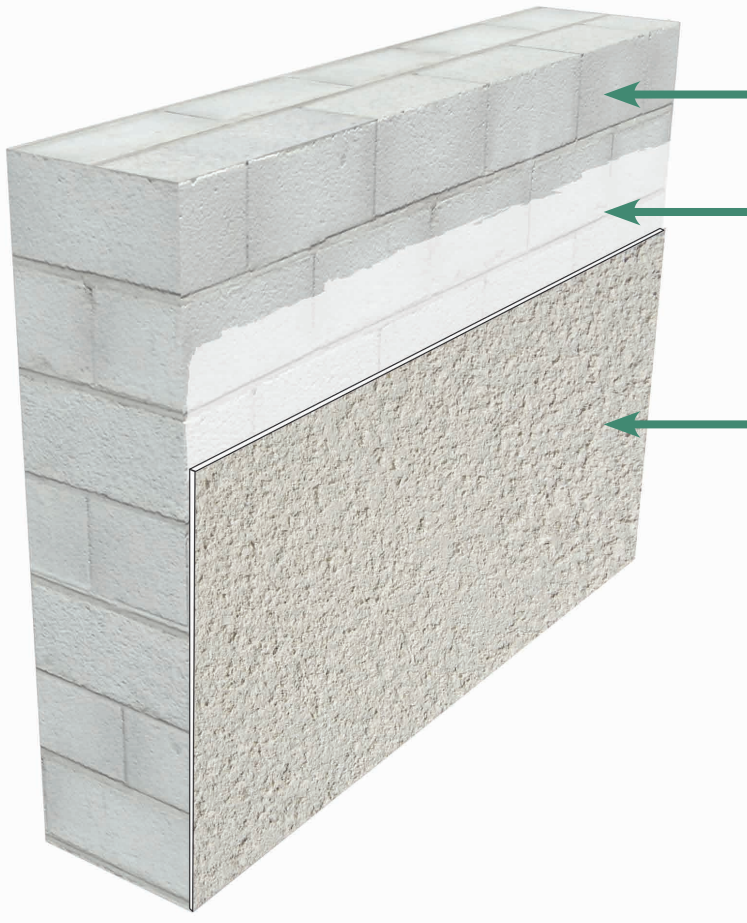
La Roc  
Dalton Industrial Estate, Dalton,  
North Yorkshire YO7 3HE  
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ecorend Monocouche Render One-coat

One coat rendering mortar (OC) for external use

EN 998-1:2010

Reaction to fire	A
Dry bulk density	1650 kg/m <sup>3</sup>
Compressive strength	CS IV
Adhesion	≥ 2.0 N/mm <sup>2</sup> , (FP) B
Capillary water absorption	W1
Water vapour permeability coefficient	μ ≤ 15
Thermal conductivity	(λ10, dry) 0.82 W/mK (tab. mean value; P = 50%)



Concrete Blockwork

S10 Bonding Primer:  
1 - 2 coats

MR1 Monocouche One Coat Render  
(15-20mm finished thickness dependent on exposure zone)

RENDER FINISH TEST PANEL

Before the start of application on-site we recommend a test panel is produced on-site to allow inspection by the client, customer, architect etc, so all concerned are happy and in agreement with the render's finish, texture, colour and appearance.

COLOUR DESIGNER

Colour plays a vital role in our world, it can sway thinking, change our actions and reactions, transform a building and compliment the design. To help with your decisions, our sample department will make and provide true samples from which to select the colour and finish of your choice. There are 33 designer colours to choose from.



**Disclaimer:** Please note that all colours within this colour selector have been displayed as accurately as the print process will allow and that slight variations in colour will possibly occur. Please request a specification sample before final colour is accepted.



*Antique White*



*Chalk White*



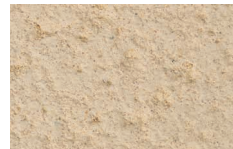
*Marble White*



*Sandstone*



*African Ivory*



*Butter Cream*



*Old Gold*



*Dusk & Dawn*



*Travertine Stone*



*Wild Straw*



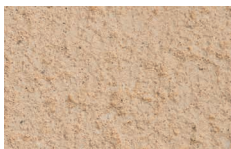
*Cornish Cream*



*Autumn Leaf*



*Tudor Rose*



*Willow Beach*



*Sand Dune*



*Earth Taupe*



*River Stone*



*Fired Copper*



*Wild Silk*



*Oyster Lilly*



*Orchard Pink*



*Red Sandstone*



*Fired Earth*



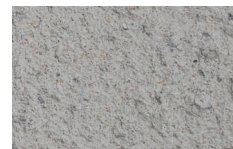
*Powder Green*



*Mint Green*



*Sea Mist*



*Luckworth Blue*



*Blue Sky*



*Portland Stone*



*Moon Stone*



*Smoke Grey*



*Mountain Grey*



*Platinum Metal*

## GENERAL PRE-START INFORMATION

### PROVISION OF INFORMATION NHBC - 6.11.2

- Designs and specifications shall be produced in a clear, understandable format, include all relevant information and distributed to all appropriate personnel.
- Design and specifications should be issued to site supervisors, specialist subcontractors, and/or suppliers where relevant, including the following:
  - A full set of drawings indicating areas to be rendered, and construction details. e.g. the position of movement joints and how interfaces are formed.
  - The render manufacturers technical information, including parts of the system design manual or installation guidance relevant to the specific site and construction type.
  - Detail of the substrate and background.
  - Detail of any technical assessments (*i.e. third party certification*)
  - Details of interfaces and abutments, such as joints, junctions and service penetrations.
  - Ancillaries that form part of the rendering system.

### MATERIAL STORAGE AND HANDLING

It is essential to store all cement-based materials off the ground (preferably on a pallet), to ensure no water or damp can penetrate through the packaging, as this would render the product unusable. Stretch wrap is commonly used to secure the product on the pallet during transportation, however this will not guarantee protection against adverse weather conditions. It is important to use materials from the same batch when completing full and connecting render panels to ensure consistency throughout the render. Once stored in recommended conditions, cement based products have a shelf life of 12 months.

All products are manufactured to La Roc technology formulations using approved selected raw materials and ingredients. Consideration should be given to the health and safety guidance regarding cement-based materials. Material safety datasheets are available on request from La Roc for all system components. No additives must be added to products without specific approval. La Roc products are available as factory batched, dry bagged mortar mixes, also pre-mixed tubbed materials and liquids that are ready to use, bagged products are ready for use just by adding water.

### USE OF CLEAN WATER

**IMPORTANT:** Use clean water when mixing the render to ensure no contamination occurs. The water supply must be accessible throughout the project.

**NOTE:** when applying by pump some machines require connection to a dedicated, uninterrupted supply. Failure in that supply will stop application.

### WEATHER CONDITIONS

Rendering shall only be carried out in suitable weather conditions, unless appropriate precautions are taken. The weather conditions for application and drying are critical.

- Do not apply if any of the following conditions are likely to arise during, or in the first 24 hours following application:
  - If frost is forecast, or in wet conditions and when relative humidity is above 85%, in temperatures below +5°C or above +25°C.
  - If the elevation is in direct sunlight or if the substrate is hot (30°C or above) or below +5°C.

## FOLLOW THE GUIDANCE BELOW IF APPLYING RENDER AND WEATHER CONDITIONS CHANGE BEYOND YOUR CONTROL TO BE – WET – WINDY – HOT

- In wet conditions ensure downpipes or temporary down pipes are projected away from the render.
- In excessive direct sun/and heat or wet/windy conditions protect the facade with temporary protection during the curing of the render.
- In excessive direct sun and heat apply a light mist spray of clean water down the surface of the render to add hydration and slow down the drying.
- For this system, if these parameters are not met, the product is at risk of efflorescence, colour variation, cracking and potential failure.
- It is the responsibility of the application contractor to manage and record the weather conditions during application and curing of the product.

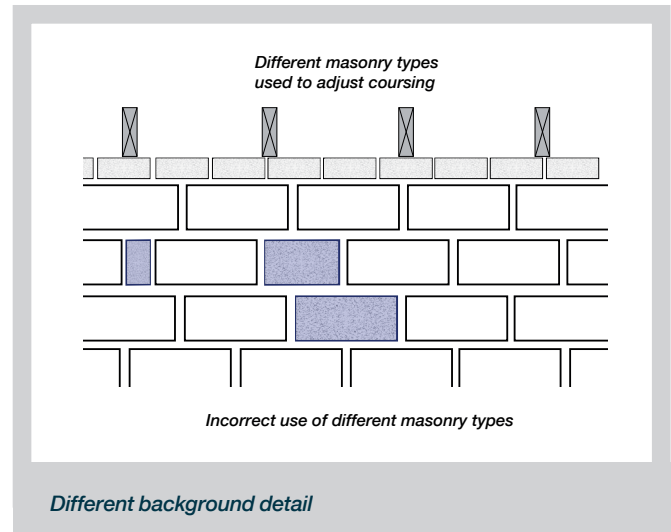
## CONSTRUCTION DETAIL & CRACK CONTROL

### DISSIMILAR BACKGROUND MATERIALS

Backgrounds should not be constructed from dissimilar materials of different densities. Where possible render should not be continued across dissimilar materials. The use of different density materials will result in thermal movement, differential movement in the background, shrinkage, expansion and localised stress. This can generally result in cracking taking place in the background. This is a common fault caused by either clay brick or much stronger concrete bricks being used as coursing materials below windows, at floor levels and closures near corners.

The cracks can develop in the background due to the different densities in the background material and will eventually manifest through to the render finish. Where a different size masonry unit is needed to ensure correct coursing, small units of the same material should be used to reduce cracking.

***Different background materials should be avoided always.***



### BED JOINT REINFORCEMENT

Bed joint reinforcement can be provided to accommodate stress in certain critical locations, e.g. under and above window and door openings. It is normally provided in addition to and not instead of movement joints. Cracking of the background to be rendered can be significantly reduced by introducing bed reinforcement within the concrete block. Bed joint reinforcement should be applied in accordance with the manufacturer's instructions. Ideally this should be applied throughout the building during construction and in accordance with the background manufacturers recommendations.

As a minimum we would recommend the use of bed joint reinforcement above and below all window and door openings and extend the reinforcement a minimum of 600mm past the reveals but ideally 1000mm. If openings are closer together then continue the reinforcement between each opening in one continuous run. Where the distance between the window/door head and the sill above are greater than 1.3m it is advisable to introduce an additional intermediate course of reinforcement.

**NOTE:** Though we can offer some guidelines, we highly recommend that you consult the background and reinforcement manufacturers to obtain their technical guidance regarding bed joint reinforcement.



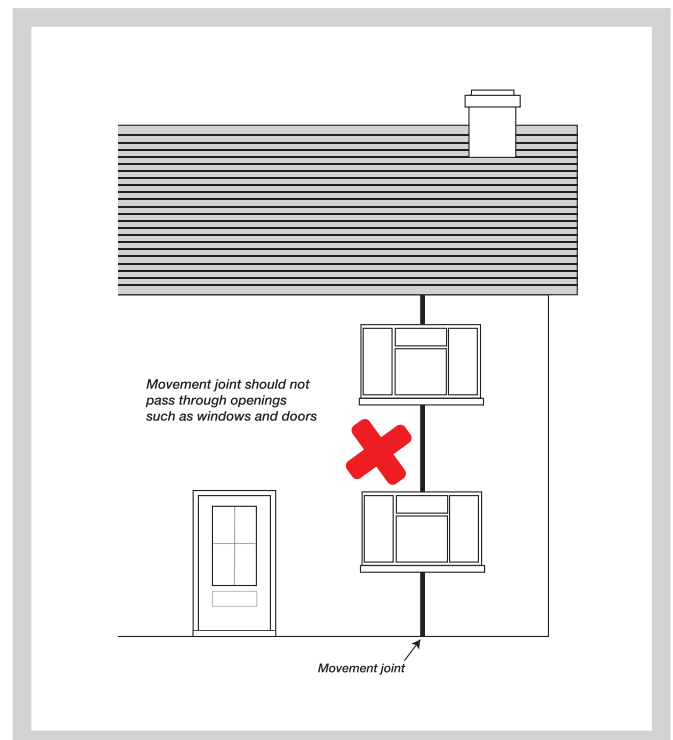
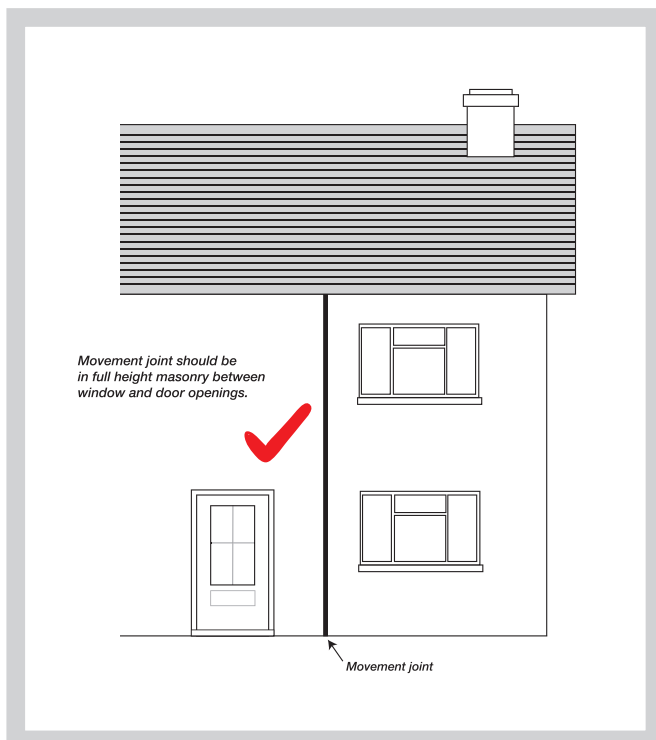
## CONSTRUCTION DETAIL &amp; CRACK CONTROL - CONTINUED

## ACCOMMODATING FOR MOVEMENT

The construction should include appropriate measures to reduce the risk of damage to the render caused by movement in the background, such as shrinkage, thermal or differential movement. The designer should follow the NHBC R5 structural design requirement, and guidance for movement in NHBC render standard 6.11.5 and in line with background manufacturers recommendations.

**Where movement joints are provided, they should:**

- Continue through the background and render (including horizontal beads)
- Be made weather tight with an appropriate sealant
- Not align with openings such as windows, doors or meter boxes
- Movement joints solely within the render will not prevent cracking



## GOOD PRACTICE FOR POSITION OF BACKGROUND MASONRY MOVEMENT JOINTS

Buildings constantly move due to seasonal and daily weather conditions. Please note that cracking of the substrate will occur, generally at the weak points in the building, such as openings or near corners if poor construction techniques have been used or insufficient movement/restraint has not been allowed for in the designs. The render will not be at fault in these cases.

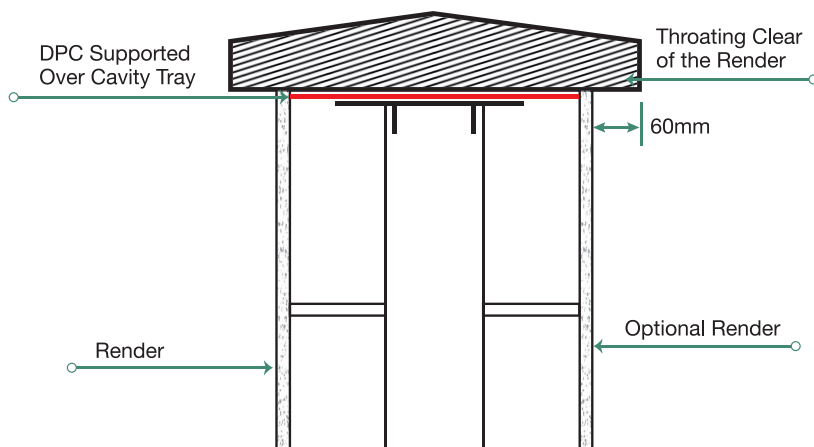


## CONSTRUCTION DETAIL &amp; CRACK CONTROL - CONTINUED

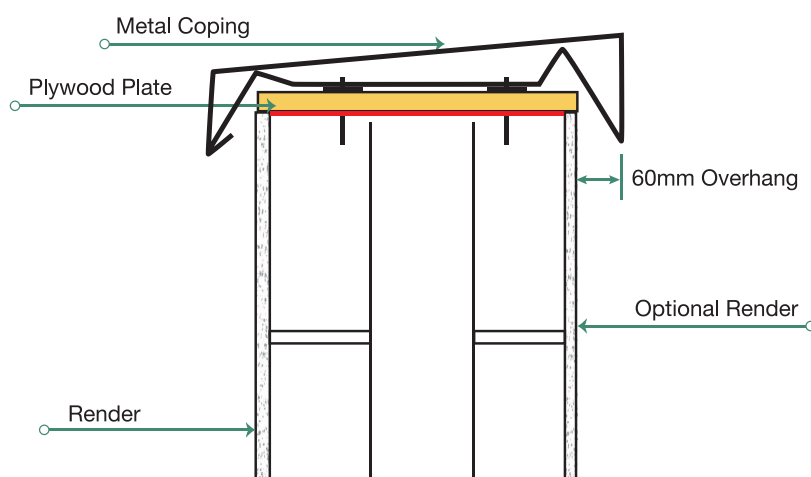
## COPINGS AND CAPPING

Render should be protected from damage by copings, cappings or sills made of material with low permeability by using suitably detailed DPC's. A minimum of 60mm projection with the throating drip detail should be provided to all copings, cappings and sills.

**NOTE:** Extending copings, cappings or sills will project water from the face of the render and ensure that staining is prevented.



*Stone Coping Detail*



*Metal Coping Detail*

## CONSTRUCTION CONSIDERATIONS

### SCAFFOLDING

Before you carry out any work, ensure the scaffolding gives you access to all external surfaces. Avoid site lines showing when the scaffold is stripped by not placing scaffold tubes close to the walls. We recommend that scaffolding be independently tied. This allows uninterrupted application, as patch repairs can be visible. You should make sure there is sufficient space (minimum of 150mm) between the inner board and the wall to be rendered.

### MOISTURE CONTENT OF SUBSTRATE

A temporary cover should be installed to prevent the building components becoming saturated during the construction stage. It is important to ensure the temporary down pipes are positioned to direct water away from the wall throughout the project to eliminate algae/fungal growth. If the substrate becomes saturated the high levels of moisture will increase the drying and shrinkage. This will have an adverse effect and weaken the bond between the substrate and the render. Consequently, this will prolong the drying and curing of the render and increase the likelihood of lime bloom (efflorescence) on the finished exterior.

### PROTECTION OF BUILD

It is fundamental during the construction process to protect the building from adverse weather. If exposed to rain and allowed to become saturated this will increase the risk of movement due to drying and shrinkage. In addition to this, it will become increasingly at risk from cracking within the substrate, which will be apparent in the final applied render. Therefore, it is beneficial to protect all exterior facades during the construction programme to ensure application is unaffected during inclement or cold weather.

### BUILDING FITTINGS

All building fixtures must be installed in advance, prior to the application of the render. This includes copings, cappings and flashings, windows and doors, soffits and fascias etc. The fittings must be installed correctly to ensure the finished render is protected from any rainfall, which can cause localised staining or darkened patches. Flue pipes, air bricks and weep holes should also be in their final position to minimise any repair work to the finished render after the installation. Repairs to a finished render can cause inconsistency within the finished appearance compared to main wall areas and are often visible on completion.

### CLEANLINESS OF THE SUBSTRATE

To attain the best adhesion, substrates must be clean, sound, dry, and free from any dust, fungal growth or oil contamination. Fungal or algae growth can be removed using a wash of ecorend XR1 Fungicidal Wash.

### ALIGNMENT OF BACKGROUND

The background construction should be level and in-line to receive the product within the guidelines. The render alone cannot be used to correct or adjust any gross inconsistencies within the substrate. As a guide, the maximum that can be achieved is a correction of a deviation of 5mm underneath a 2m straight edge placed anywhere on the surface of the substrate.

### CURING OF THE CONSTRUCTION

It is essential to allow the newly constructed substrate to cure properly before commencing with the application of the render. If the substrate is not fully cured, shrinkage of the background can occur. The effects from the shrinkage could result in cracking within the substrate, which will become more apparent in the final applied render. It is recommended that the substrate be allowed to cure for a minimum of 28 days before starting the application of render.

## APPLICATION AND SITE ORGANISATION

### APPROVED BLOCK TYPE FOR RENDERING & PRIMER REQUIRED

All substrates should be clean, suitably dry, sound and free from anything that may impair adhesion, such as oil, grease, organic matters and soluble salts. The substrate, including joints, must be of equal strength or stronger than the render and should be able to adequately support and restrain it. Good adhesion of a render is dependent on good porosity of the substrate.

If the suction is too high the render will not hydrate sufficiently. If it is too little there will not be a good bond.

Blocks that are fair faced or paint grade should always cause concern due to their smooth face. To ensure a good bond the substrate should have an open texture or prime using ecorend K11 Key Coat Primer, applied as a slurry coat. Raking the joints is not an option to provide key for render.

Block Type	Density	Strength	Primer
Medium Density	1350 to 1450kg/m <sup>3</sup>	3.6 to 7.3N Concrete block	ecorend S10 Bonding Primer (1 coat)
Ultra-lightweight	Up to 950kg/m <sup>3</sup>	3.6 to 7.3N Concrete block	ecorend S10 Bonding Primer (2 coats)
Normal density aircrete	530 - 810kg/m <sup>3</sup>	3.6 to 9.0N Concrete block	ecorend S10 Bonding Primer (2 coats)

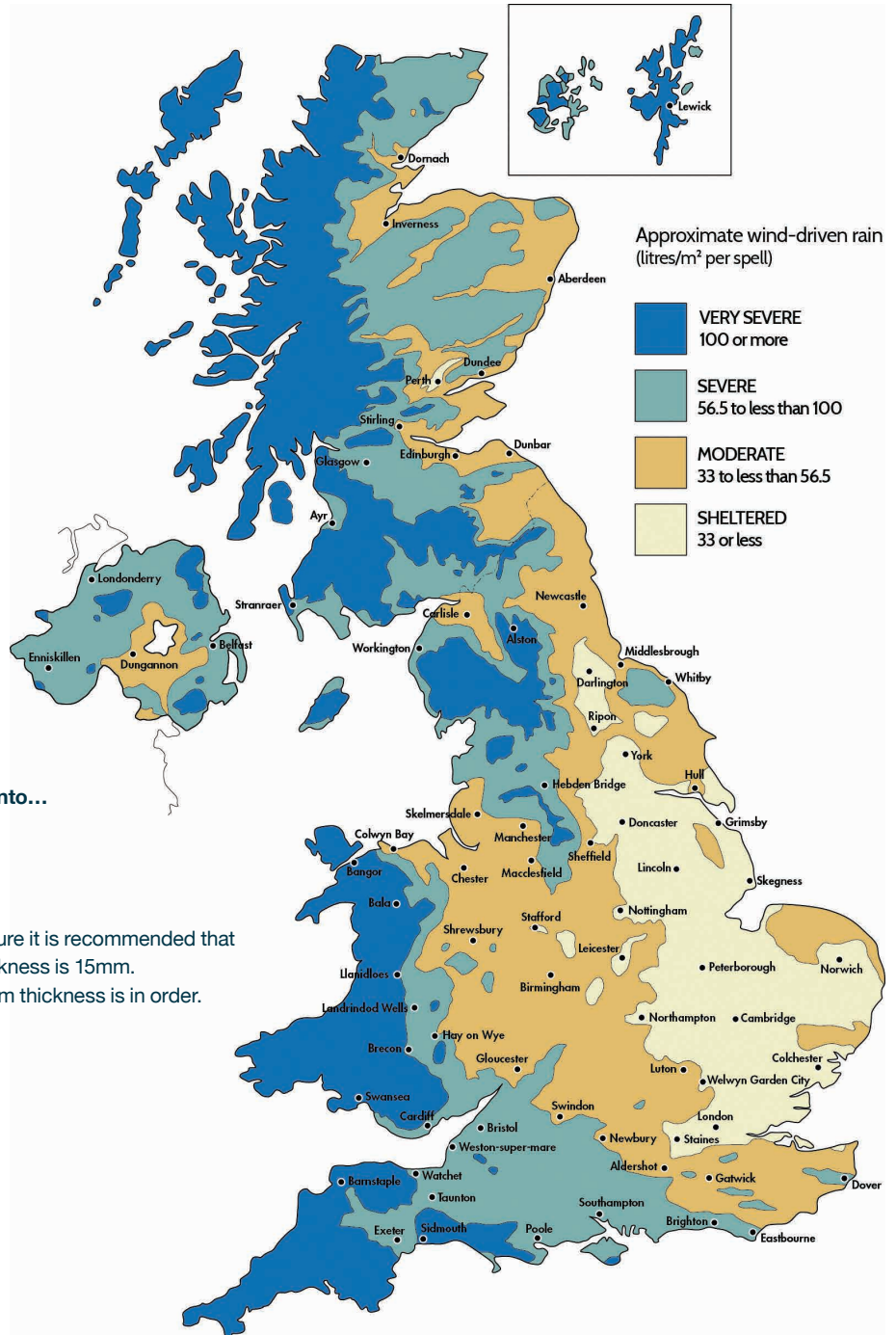
**NOTE:** Low density aircrete 2.9 to 3.6N concrete blocks are NOT recommended to render MR1 directly on to.

**NOTE:** We are conscious that occasionally blockwork is being formulated with different quantities of recycled materials. Using recycled materials can have a huge impact on the water absorbency rate of the block, with extreme examples absorbing twice the water volume over a short time. For this reason, it is critical that due care is taken to protect blockwork from adverse weather in both storage and construction. These blocks often appear similar in appearance to standard masonry. It is therefore essential, prior to rendering, to perform a suction assessment test to determine the water absorbency rate within the blockwork. If the level of absorbency is high, action will be required. Please contact our technical department on - 01845 578555

APPLICATION AND SITE ORGANISATION - CONTINUED

THICKNESS OF RENDER AND EXPOSURE ZONES

Exposures of buildings are calculated with the following method defined in cycles of wet and drying conditions called spells and measured in litres/m<sup>2</sup>/spell. As part of the process, consideration should be given to location, orientation and surrounding environment, such as exposure to the force of wind and rain combined with protection from overhangs or surrounding buildings.



Categories of exposure are defined into...

- 1 Very Severe
  - 2 Severe
  - 3 Moderate
  - 4 Sheltered
- (a) For sheltered to moderate exposure it is recommended that the minimum finished render thickness is 15mm.
- (b) For severe elevations then a 20mm thickness is in order.

## RENDER SYSTEM

Render System	
Substrate	All approved
Finish	ecorend MR1 Monocouche One Coat Render <i>(15-20mm finished thickness dependent on exposure zone)</i>
System	MR1/CB

System Components	Product Information
Primer	As required dependent on the substrate – see index on page 10 <i>(1-2 coats)</i>
Finish	ecorend MR1 Monocouche One Coat Render, incorporating FX1 fibre reinforcement mesh around all openings, stress points and vulnerable areas where required – <i>(15-20mm finished thickness dependent on exposure zone) (Colour to be selected by the specifier)</i>

Profiles & Accessories	
Fibre Mesh	ecorend FX1 Fibre Reinforcement Mesh
Stop beads	ecorend 15-20mm PVC stop bead
Corner beads	ecorend 15-20mm PVC corner bead
Drip beads	ecorend 15-20mm PVC bell cast bead
Movement beads	ecorend 15-20mm PVC movement joint bead

**NOTE:** Thickness of the beads are determined by the exposure zone and thickness of render as stated above.

## SETTING UP THE AREA TO BE RENDERED

All surfaces must be sound, clean, dry and free of any material, which may impair adhesion. Do not apply to shiny surfaces. Scaffolding must be independently tied to allow for uninterrupted application. Any faults in the structure, particularly those that may lead to moisture penetration, must be rectified. Mask around the areas where material is to be applied. Beads and expansion joints should be included as required by the substrate and BS standards and carried through all applied materials.

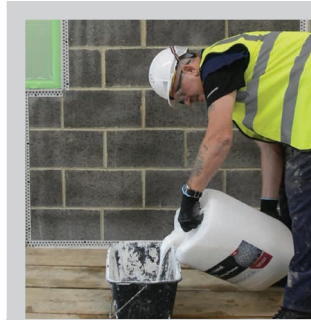
Masking products should be used to protect adjacent work and to provide clean straight edges. During this process, consideration should be given to the protection of glass and aluminium surfaces. Splashes of cement products can lead to surface etching and synthetic materials are not easily removed. Masking tape must be removed immediately after finishing, before the material has dried out.

## RENDER SYSTEM - CONTINUED

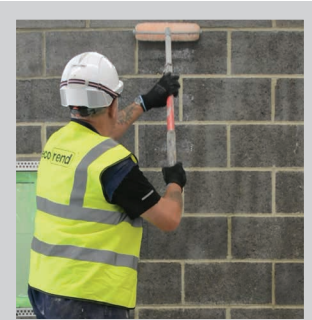
## PRIMING THE CONCRETE BLOCK WORK

ecorend S10 Bonding Primer is a full silicone resin primer specifically designed for use on masonry substrates. The silicone resin ensures that the primer is highly vapour permeable and matches the high vapour transmission rate of the mineral render, it will ensure an equal drying rate of the render system when scraping to support colour consistency and promote good adhesion.

Apply neat in 1-2 coats using a brush, roller or spray depending on the substrate.



*Pour ecorend S10 Bonding Primer out into a suitable container*



*Apply ecorend S10 Bonding Primer to substrate*

## MIXING OF THE RENDER

The key methods of mixing for ecorend MR1 Monocouche One-Coat Render are as follows:

- Render pump
- Paddle or pan mixer

ecorend MR1 Monocouche One-Coat Render should be mixed with clean water at a rate of approximately 4.5 to 5.0 litres per 25kg bag using a suitable paddle or pan mixer, mix for 2 minutes, allow to stand for 2 minutes then re-mix. This process allows the additives to dissolve and activate.

Render Pump – flow rate should be checked on site for specific machine before application starts to determine correct consistency.

**When mixing, the following should be considered:**

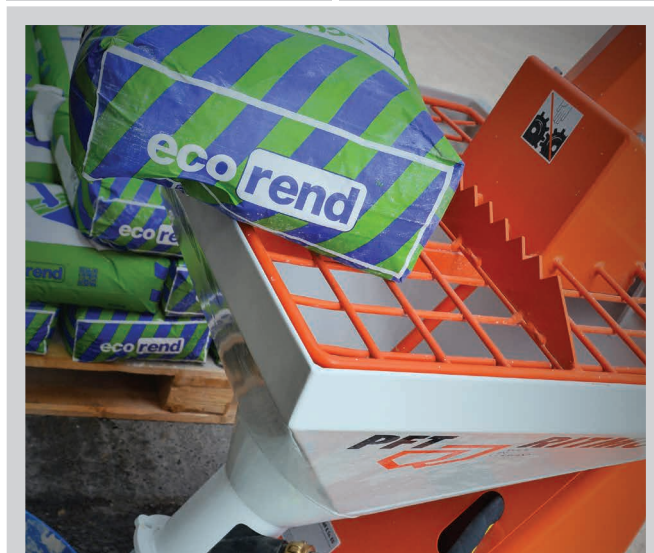
- Use only materials directed in correct quantity.
- Discard suspect materials, which are damp or contaminated.
- Measure and maintain by volume proportion of gauging water.
- Don't over mix. Only mix sufficiently to combine materials - then use immediately.



*Add powder to clean water*



*Mix using paddle mixer*



*Typical Render pump*

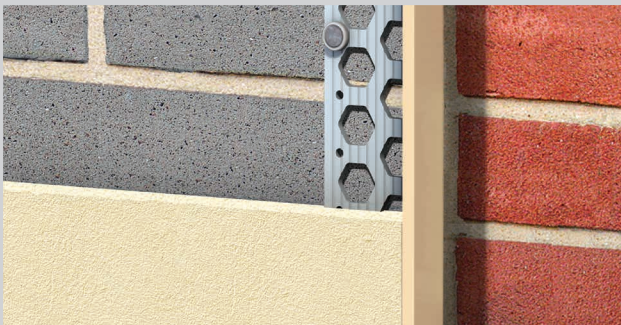
**NOTE:** ecorend MR1 Monocouche One-Coat Render may stiffen on standing. Re-mix the product to regain a workable consistency but do not add any more water.

## RENDER SYSTEM - CONTINUED

### PVC RENDER BEADS

We supply a range of PVC beads that perform different roles within the render system.

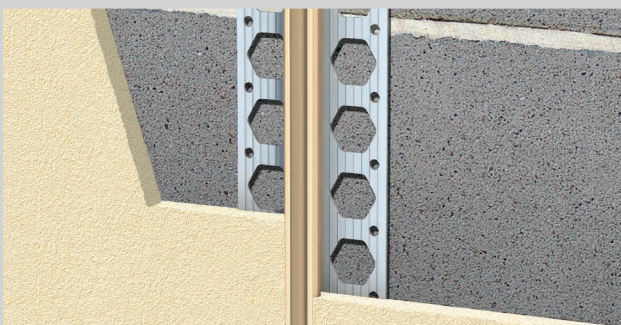
- **Corner beads:** provide clean straight edges and additional strength at external angles.
- **Bell cast beads:** provide a horizontal joint usually at DPC level and are designed to drip the water away from the facade.
- **Stop Beads:** provide a clean edge when butting up to windows or door frames, or any other termination in the render.
- **Expansion Beads:** As used to mirror the substrate expansion joints and prevent cracking.



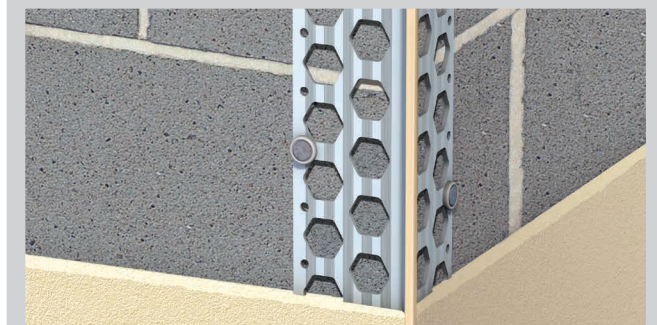
Stop Beads



Bell Cast Bead/Drip



Movement Joint



Corner Bead

### FIXING THE PVC RENDER BEADS

#### Stainless steel fixings – Dry fix:

- Using stainless-steel fixings and mechanically fixing the beads to the concrete block substrate at a maximum of 300 centres.

#### Wet fix:

- Using ecorend MR1 Monocouche One-Coat Render as a bead adhesive. This approach enables the user to align the beads to the desired level and thickness. **NOTE:** Do not use Gypsum based products to fix the beads by just trowelling render over the wing of the bead, this will result in a weakness of the render bond.

To attain a strong adhesion, dabs of bead adhesive should be applied directly to the substrate at a minimum of 300mm centres apart. A dab consists of a bed of material to width of the bead wing (40mm), it should be approximately 100mm in length and to a minimum thickness of 15mm. If additional support is needed, it is advisable to use continuous dabs when attempting to correct minor misalignment of the construction. Press the bead into the freshly applied dabs with a trowel to secure the bead wing and ensure it is fully embedded. Trowel away the excess render as you secure the bead in place. **NOTE:** The bead adhesive needs to be set back from the nose of the profile to ensure render coverage of at least 10 to 12mm.

The bead will set in a maximum of 2-6 hours at 20°C. Note the substrate type will determine the overall set time of the product, this is due to the different suction properties.

## RENDER SYSTEM - CONTINUED

## APPLICATION OF THE WET RENDER

ecorend MR1 Monocouche One-Coat Render is a full thickness render applied in either one or two passes designed to hydrate together as one monolithic coat.

**The thickness of the passes is determined by the method of finishing and upon the chosen means of application.**

- As an example; for a 15mm finished thickness, a single 18mm pass can be applied with a machine in one application.
- By hand, this same thickness would be achieved by the application of two 9mm passes (on average).

The initial pass in this instance would normally be allowed to gel prior to the second pass. In areas of high stress (i.e. around a door or window opening) the reinforcement mesh can be added into the fresh initial pass. It is important to note that to ensure a finished monolithic render application, the second pass is generally applied within an hour of the initial pass depending on conditions. With scraped finishes the final pass must not be less than 8mm as otherwise it is likely you will expose the cement rich interface between the passes which produces a 'halo' ring effect.



*Product is ready for application when you can leave a finger mark*



*Ecorend MR1 being spray applied*



*Apply with trowel to blockwork wall*

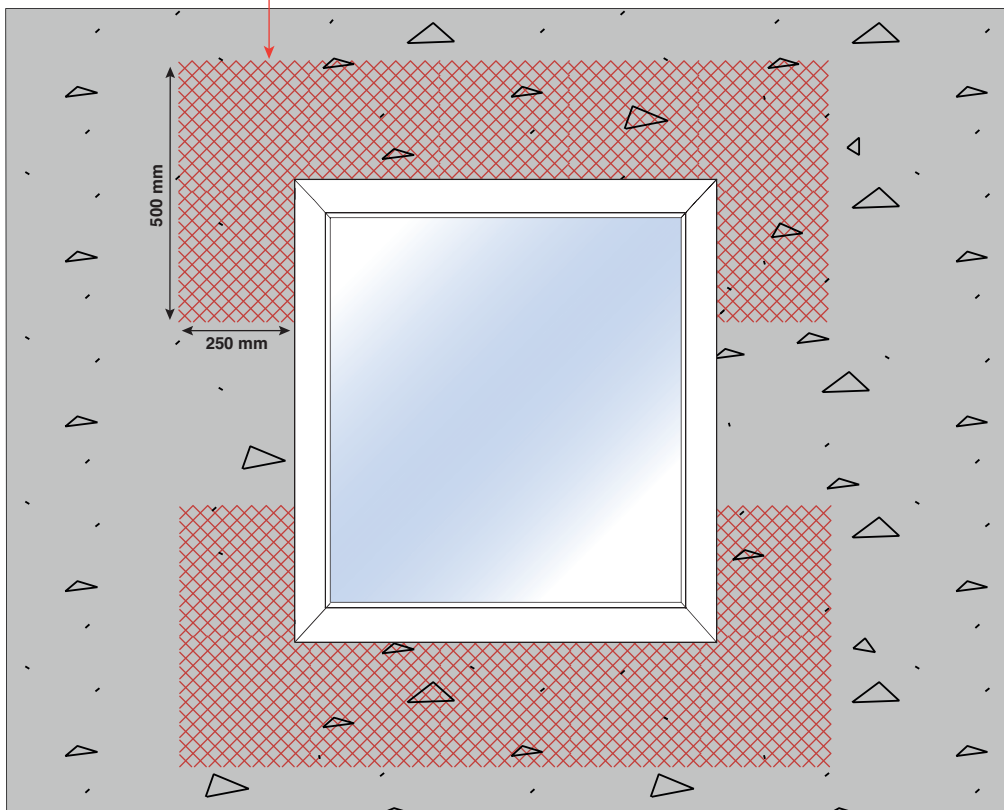
## RENDER SYSTEM - CONTINUED

## FIBRE REINFORCEMENT MESH DETAIL – CRACK CONTROL ON OPENINGS

You can reduce the risk of cracking at high stress locations, with the following precautions. Introduce fibre reinforcement mesh to potential stress fracture locations, such as around windows and doors and crack-prone points such as weep vents. Cracking won't be prevented with this step alone, this is only included as an additional precaution to well-constructed and reinforced substrate materials. If existing masonry has cracked, or where the abutment of two forms of masonry meet, we recommend that this is first repaired or reinforced by retrofitting a bed joint reinforcement solution or by creating a movement joint. When you've completed this, the fibre reinforcement mesh should be applied a minimum of 500mm past the line of the cracking in all directions. Please note that the fibre reinforcement mesh should not be mechanically fixed but fully bonded and embedded within the render during the initial application of the 1st pass.

**NOTE:** The positioning of the mesh is critical within the render thickness; no contact should occur with the substrate. Likewise, to avoid mesh being exposed in the scraping process it needs to be located mid thickness in a zone of the first 5-10mm of the total render coat. The mesh should be pressed evenly into a freshly applied pass of render using a trowel or spatula. The mesh must be encapsulated in a wet on wet process to achieve the monolithic bond of the subsequent pass of render. Mechanically fixing the mesh is not in order and will impair the bond of the render to the wall. It is not a carrier lathing. Press evenly into the freshly applied render with a trowel or spatula.

As indicated below, bed the fibre reinforcement mesh around all openings. Bed into 1st pass of MR1 monocouche one coat render.



Stress patch detail



## RENDER SYSTEM - CONTINUED

## RULING OFF / LEVELLING OF RENDER

In order to attain a flat level finish the render should be applied evenly, in passes, and levelled with a straight edge-levelling tool. Whichever method of application is used (machine or hand) it is recommended that levelling tools be used as part of the process. Specialist serrated edges for levelling ecobond materials are favoured due to the ease of handling and they help to remove air pockets trapped in the wet render during application, particularly from hand application.

Once the material is applied it should then be ruled level and flattened with a spatula to allow for finishing. This should be done during application whilst the material is still workable.

Feather edge tools and a spatula are recommended to help identify hollows and high spots before finishing the render. The serrated feather edge when used on newly applied render will level the surface, remove air pockets and identify hollows and low spots without bringing cement rich laitance to the surface.



Skimming spatula



Serrated spatula



Serrated feathered edge

## SCRAPE FINISHING

The render is ready to finish once you can imprint your nail, but not your thumb print, at this point the render is ready to scrape. This could generally be within 3-4 hours during the summer and over night during the winter. If applying in spring/summer product can be applied in the morning and scraped back in the afternoon, generally in the winter product is applied in the afternoon and scraped back the following morning.

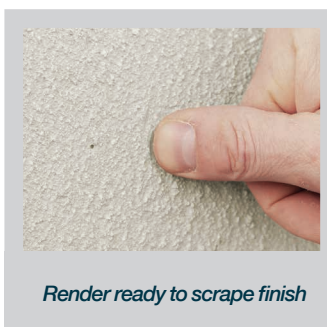
- **Scraping should take place using a scraping float. Ensure to scrape the surface in a tight circular action.**
- **It is essential that this operation is done carefully and evenly, as the objective is to only remove 2mm from the complete surface.**
- **During the operation of scraping the render, use a straight edge to ensure any high spots are evened out.**

**There are 2 methods for scraping down:**

- Using a hand scraping tool.
- Using an I profile aluminium straight edge, commonly known as an I bar. This tool helps with improving the flatness and uniformity of the scraped finish as it is used as a straight edge while scraping down.

Immediately following the scraping process, (preferably using a second man for this process), use a light soft brush to remove all loose material. Carrying out this procedure may highlight any un-scraped areas. Un-scraped areas must be scraped immediately to avoid colour variation that will occur if scraping continues when the product has started to set. Small blemishes or holes can be repaired at this stage by using material freshly scraped from the wall and pointed in. Once the product is fully scraped the minimum finish thickness should be 15mm.

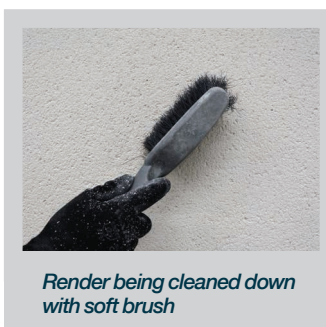
**NOTE:** Variation in colour and texture can occur if the render is finished at different times and different weather conditions.



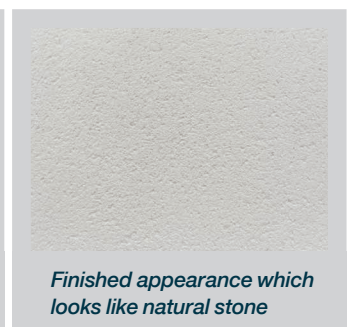
Render ready to scrape finish



Render being scrape finished



Render being cleaned down with soft brush



Finished appearance which looks like natural stone

## RENDER SYSTEM - CONTINUED

### SPRAYED ROUGHCAST TEXTURE

In order to achieve a desirable high quality textured finish it is strongly recommended to use a batch-mixing pump. The initial basecoat should be applied by machine at a thickness relevant to satisfy the exposure rating. The base coat should be ruled level and flat and then allowed to dry for a period of between 1 and 2 hours before applying the second pass.

During the application of the 2nd pass and in order to achieve a high quality finish it is essential to limit the number of interruptions to the workflow, e.g. careful consideration should be given regarding potential obstructions (i.e. scaffolding).

The second pass will give the final decorative textured finish to the desired effect. A wide variety of textures can be achieved from a Tyrolean fine finish through to a heavy roughcast effect. It is essential no matter what finish is chosen, that the combined final thickness of the render at its lowest point correlates to the exposure rating within the product guidelines. Due to the wide range of achievable textures it is recommended to prepare an onsite sample for client approval prior to the work commencing.

The procedure involved to attain the varying textures is achieved by lowering the pressure of the render pump for heavier textures, and speeding up for finer finishes. Additionally, the nozzle size of the spray gun can be adjusted to obtain a specific finish. To maintain a consistent texture throughout the render it is advisable to keep the spray gun moving in a circular action, keeping a regular distance between the nozzle end and the render panel and maintain a flowing edge when applying the texture.

## AFTER CARE

### Cleaning

ecorend render may be cleaned periodically with the use of a pressure washer mixed with a mild detergent in water. Special attention should be taken to select the correct nozzle spray pattern before cleaning commences. The nozzle should be adjusted to form a fan rather than a jet spray, as the latter could be too abrasive especially at the exposed edges. The period between treatments is purely dependent upon the amount of ground floor pedestrian 'traffic' and local climate conditions. Organic growth should be brushed off the surface and subsequently treated with ecorend XR1 Fungicidal Wash.

### Damage & Repairs

ecorend render is a through-coloured material, therefore scratches, scuffs, and abrasions will not be as noticeable as with traditional painted renders. Once applied, ecorend products are finished materials and therefore repairs and patches are more likely to be apparent. For this reason we would recommend that full panels be removed and replaced.

### Painting

ecorend SP77 Silicone Masonry paint is a high performance highly breathable paint that gives outstanding long term durability and performance. Providing that the render is clean, dry and sound, a direct application of ecorend SP77 Silicone Masonry paint is recommended.

### Cracks

Straight line cracking is not a commonplace sign of render failure, but more likely an indication towards a crack in the substrate. Any cracks or irregularities should be thoroughly inspected by a structural engineer prior to repair work being carried out, in order to determine the possibilities of any further movement. Undefined cracks that remain dry and sound are usually best left alone. Any remedial work carried out, however carefully done, will inevitably result in some differences in appearance.

### Lime Bloom

Efflorescence or lime bloom are names given to the white surface staining which may occur on materials containing cement or natural minerals, dried or cured in cold damp conditions (i.e. UK winter conditions). Lime bloom does not result from a fault in the product but rather from the intolerance of cement to certain conditions during its early stage of hydration.

BS 5262 Code of practice for external renderings clauses 34.1 and 47 confirm that Lime Bloom is a phenomenon that sometimes affects cement products. This occurs more often when these products are subjected to damp conditions, and/or low temperatures during early curing. The resulting thin film of what is basically lime on the surface of the product, does not affect the integrity or strength of the material. Please contact our technical department for a method statement to remove.

*To the best of our knowledge and belief, this information is true and accurate. However, as conditions of use of the product and the expertise of any labour involved are beyond our control, the end user must satisfy themselves by prior testing that the product is suitable for their specific application if no spec has been provided for the project in hand. No responsibility can be accepted, nor any warranty given by our Representatives, Agents or Distributors. Products are sold subject to our Standard Conditions of Sale and the end user should ensure that they have consulted our latest literature, and all new publications supersede any previous versions.*

DETAILED DRAWINGS

ISOMETRIC SYSTEM BUILD UP



DETAIL Isometric System Build Up

DRAWING ID MR1 / CB / 001

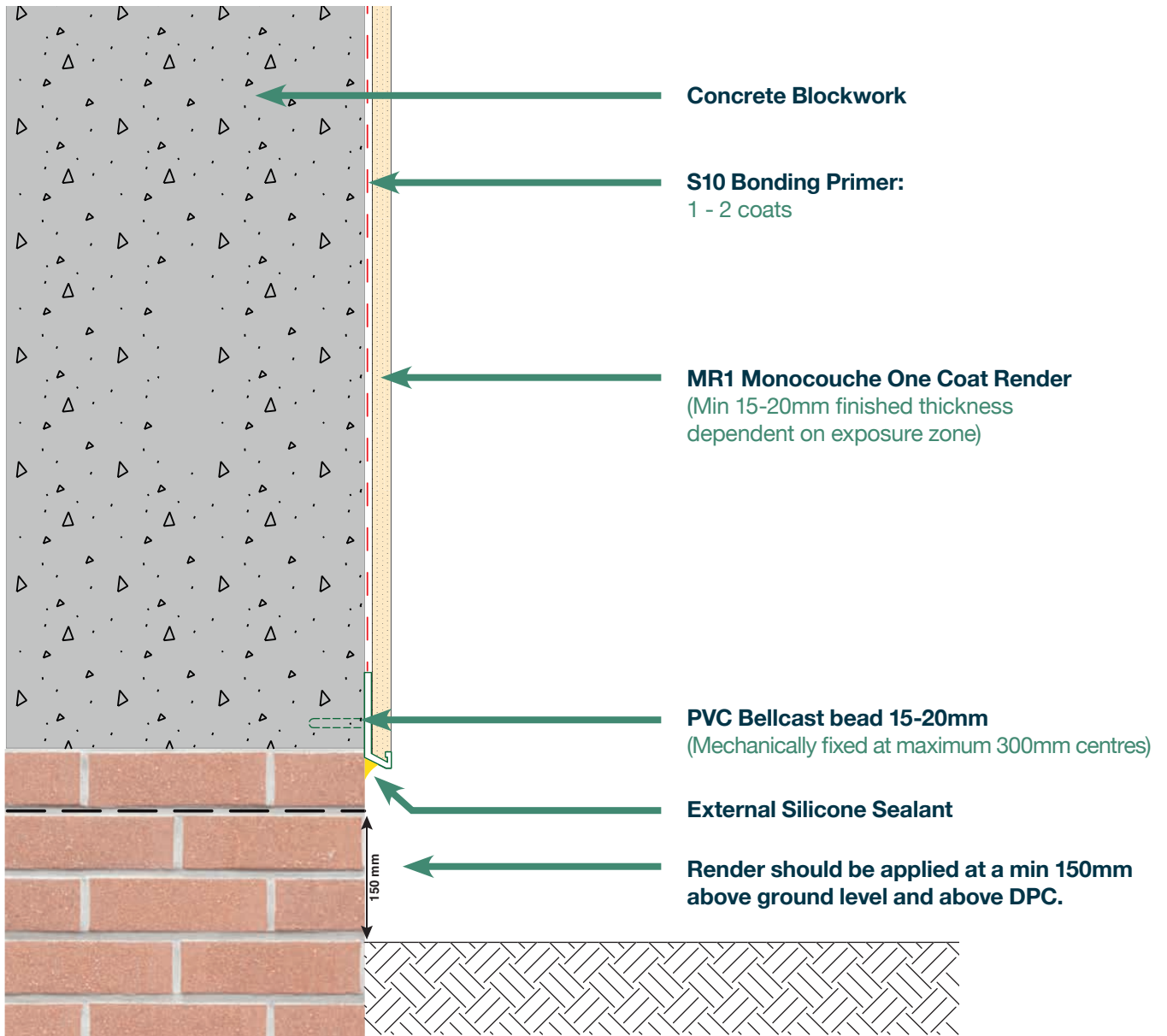
DATE JULY 2017

SCALE NTS

ISSUE 01

DETAILED DRAWINGS - CONTINUED

BASE BEAD DETAIL



DETAIL **Base Bead Detail**

DRAWING ID **MR1 / CB / 002**

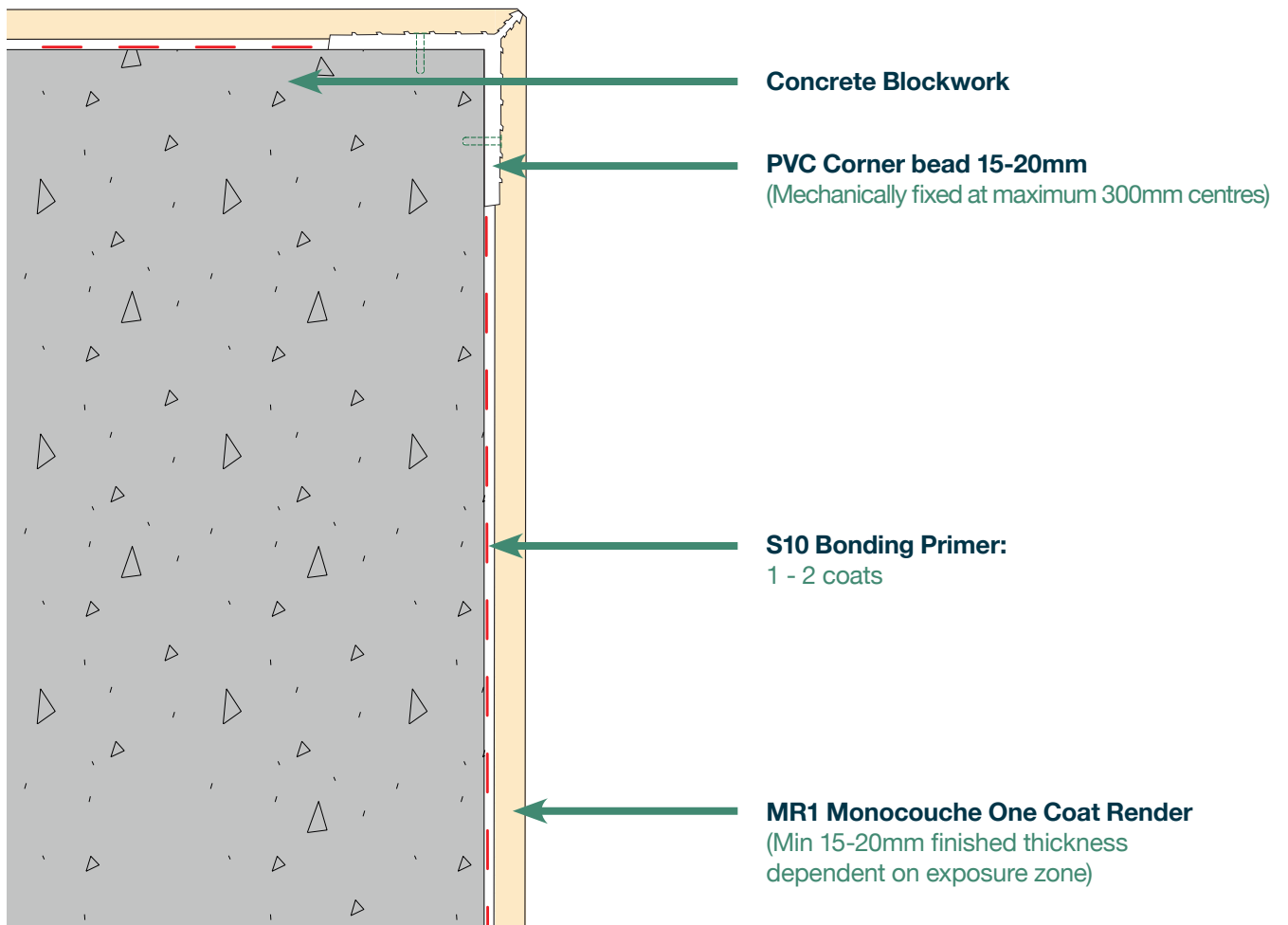
DATE **JULY 2017**

SCALE **NTS**

ISSUE **01**

DETAILED DRAWINGS - CONTINUED

BUILDING CORNER DETAIL



DETAIL Building Corner Detail

DRAWING ID MR1 / CB / 003

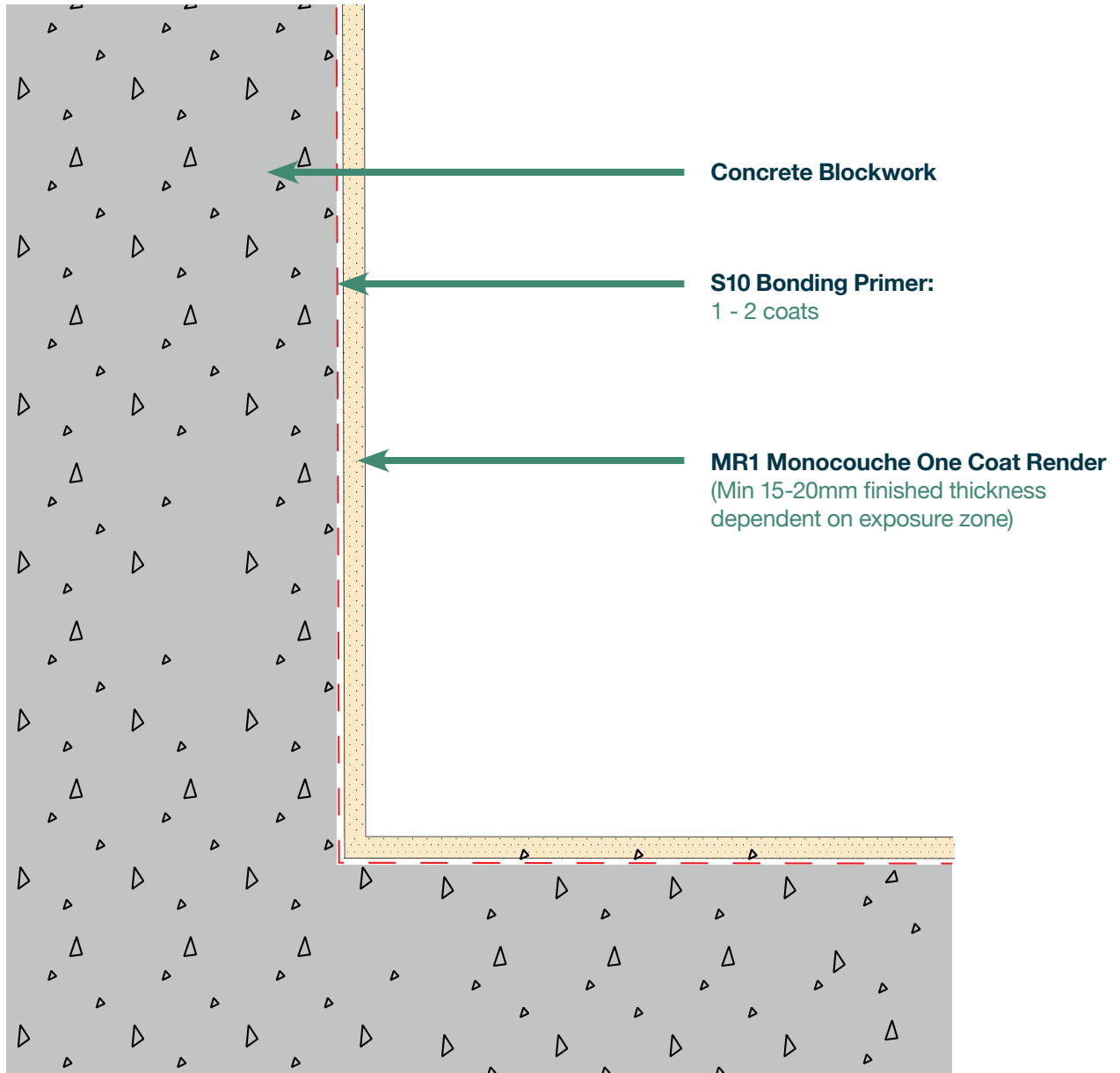
DATE JULY 2017

SCALE NTS

ISSUE 01

DETAILED DRAWINGS - CONTINUED

INTERNAL BUILDING CORNER DETAIL



DETAIL Internal Building Corner Detail

DRAWING ID MR1 / CB / 004

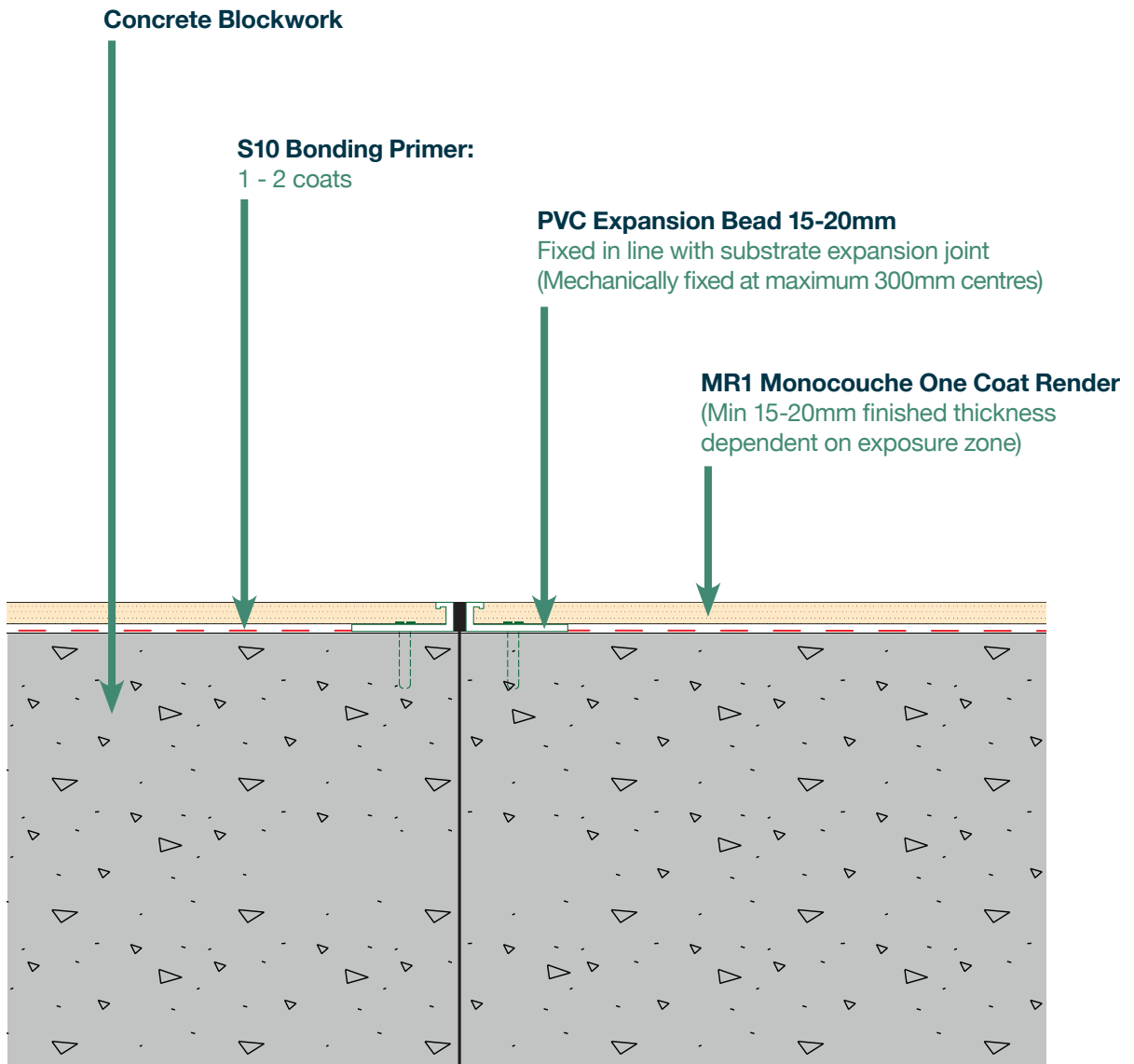
DATE JULY 2017

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ISSUE 01

DETAILED DRAWINGS - CONTINUED

MOVEMENT JOINT DETAIL



DETAIL **Movement Joint Detail**

DRAWING ID **MR1 / CB / 005**

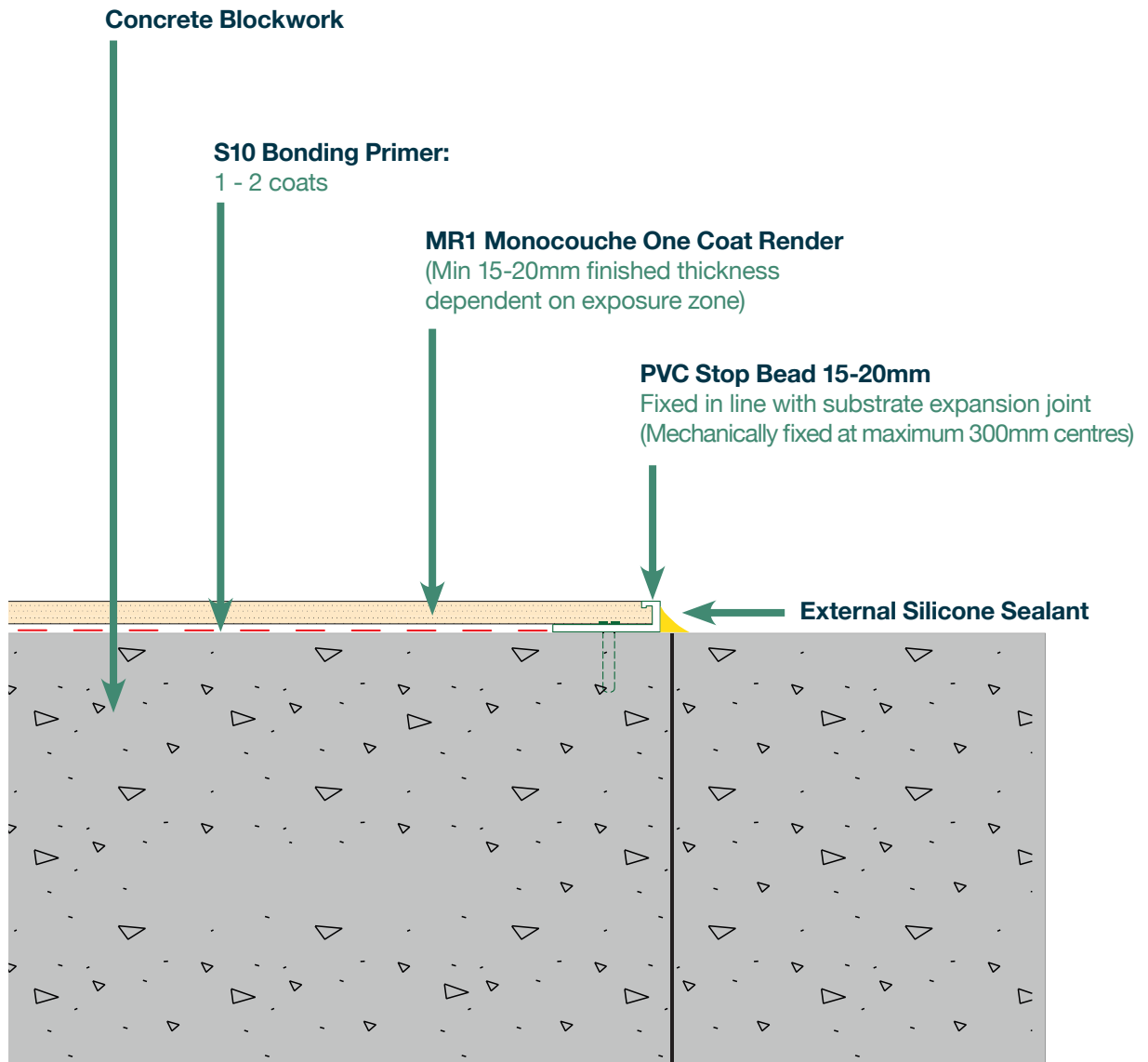
DATE **JULY 2017**

SCALE **NTS**

ISSUE **01**

DETAILED DRAWINGS - CONTINUED

PARTY WALL DETAIL



DETAIL Party Wall Detail

DRAWING ID MR1 / CB / 006

DATE JULY 2017

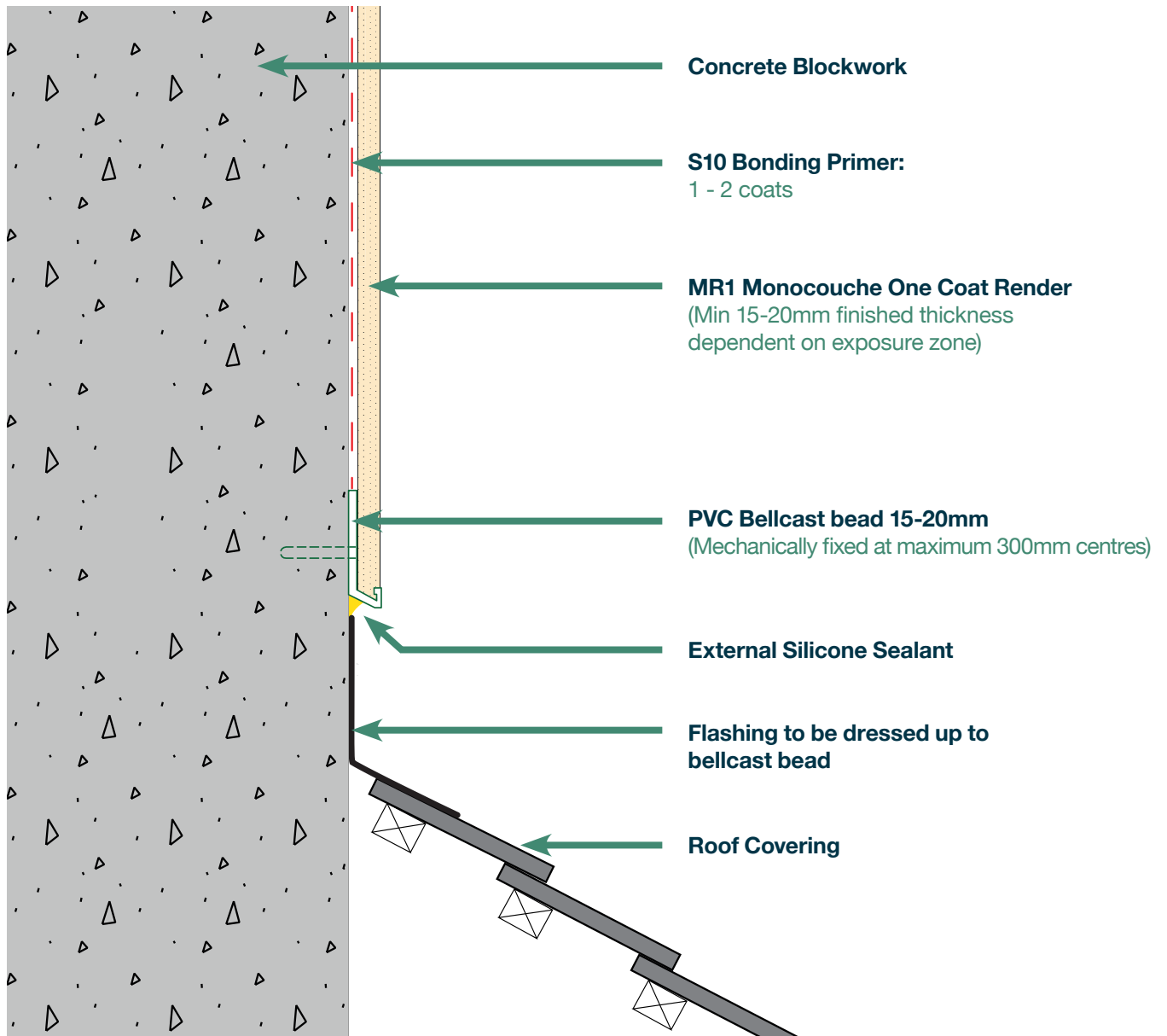
SCALE NTS

ISSUE 01



DETAILED DRAWINGS - CONTINUED

ROOF JUNCTION DETAIL 01



DETAIL

DRAWING ID

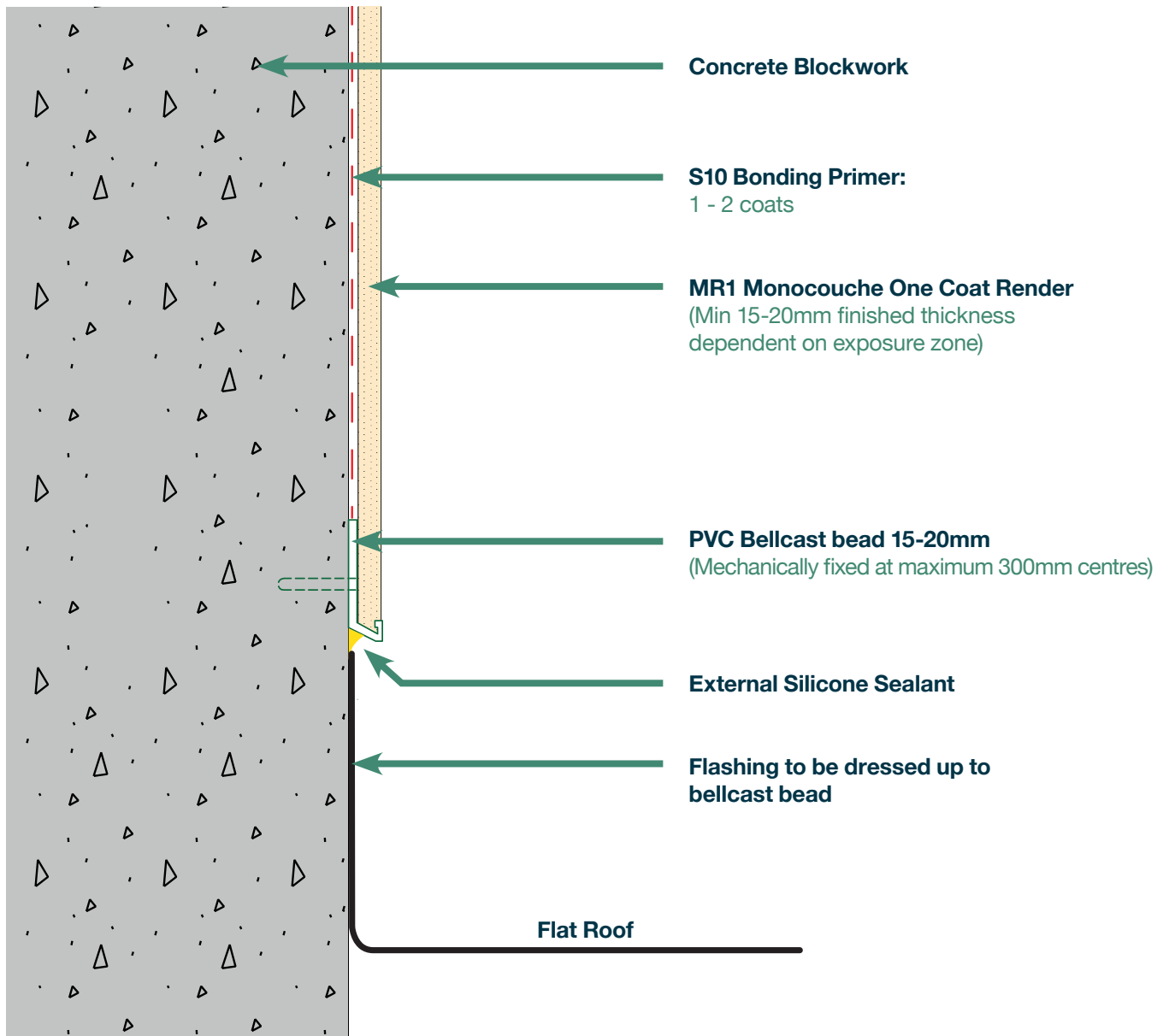
DATE

SCALE

ISSUE

DETAILED DRAWINGS - CONTINUED

ROOF JUNCTION DETAIL 02



DETAIL Roof Junction Detail 02

DRAWING ID MR1 / CB / 008

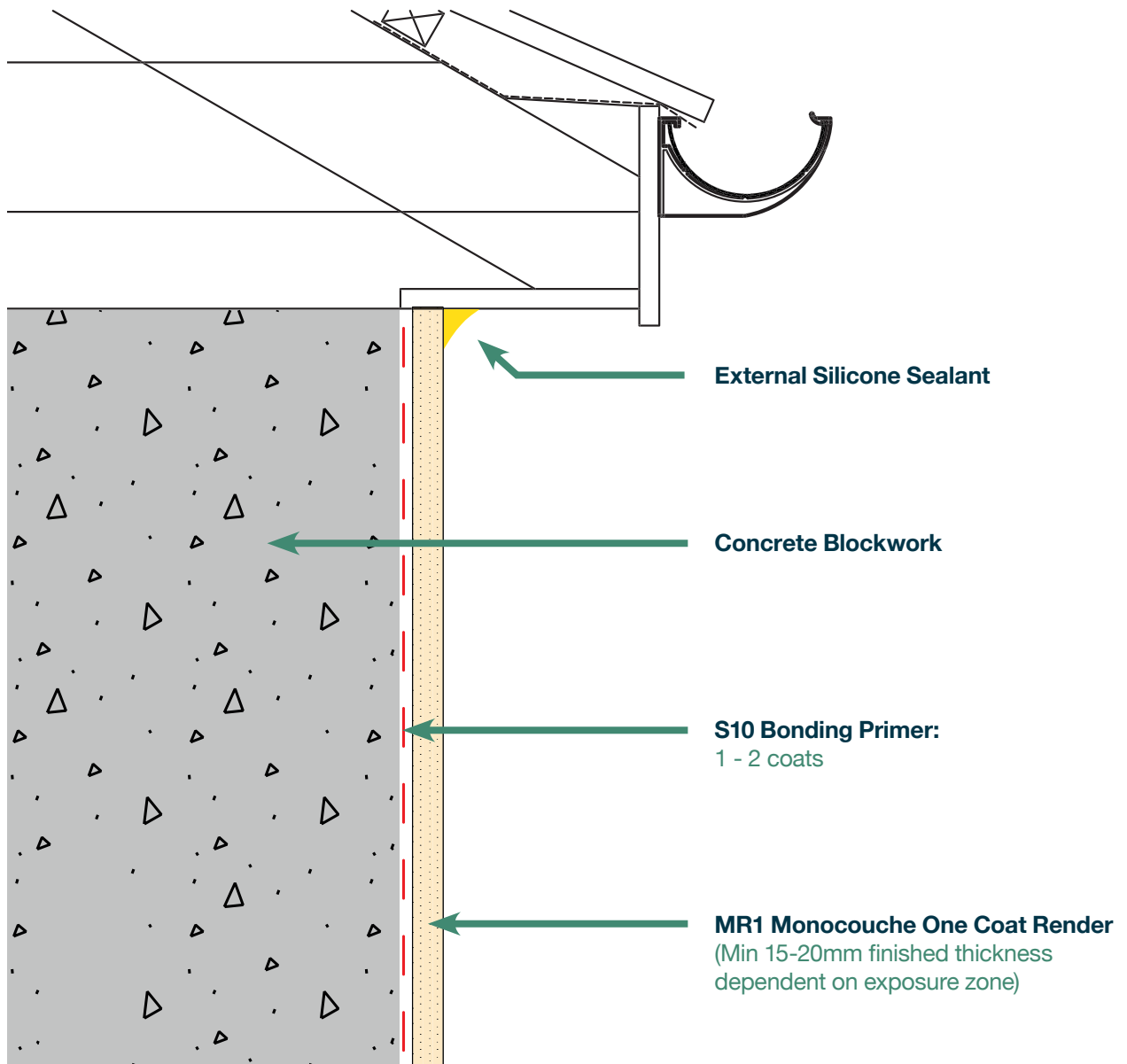
DATE JULY 2017

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ISSUE 01

DETAILED DRAWINGS - CONTINUED

SOFFIT DETAIL



DETAIL Soffit Detail

DRAWING ID MR1 / CB / 009

DATE JULY 2017

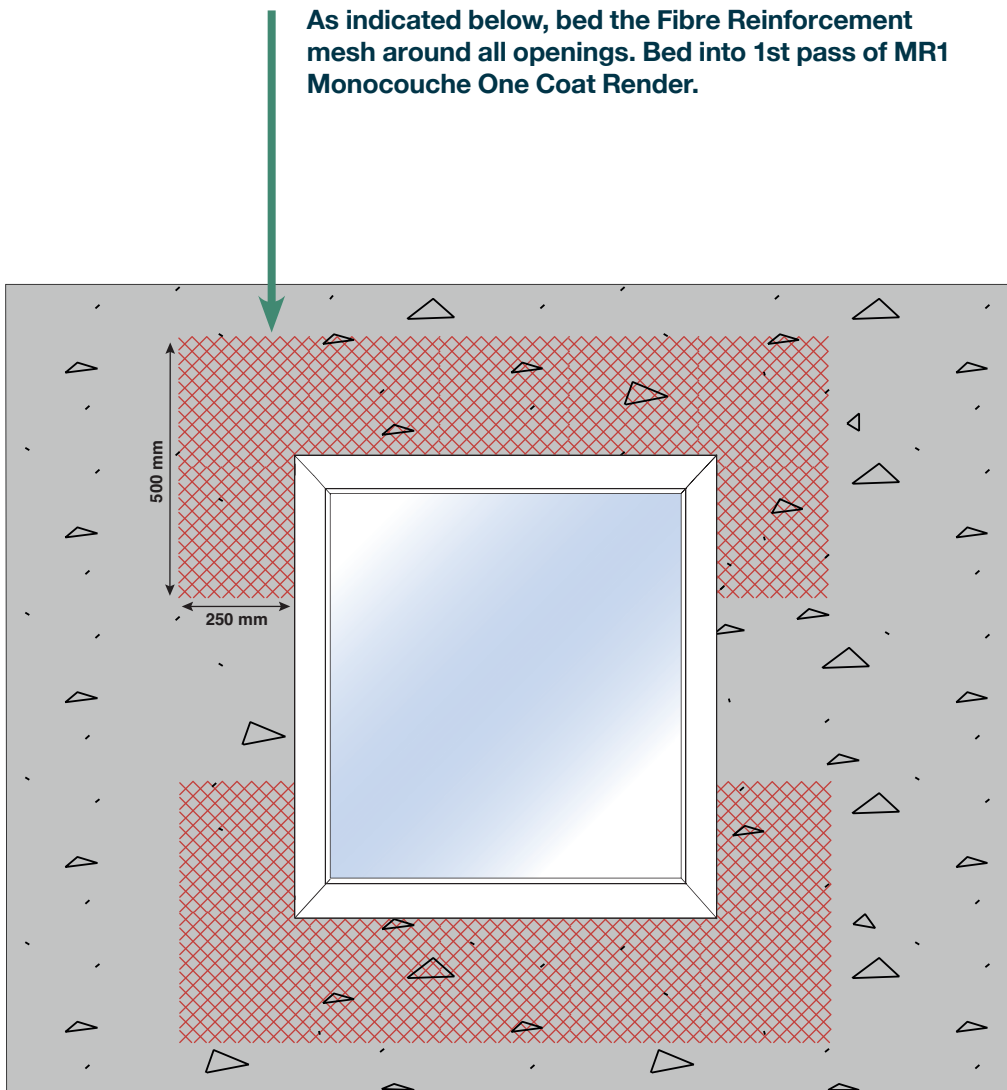
SCALE NTS

ISSUE 01

DETAILED DRAWINGS - CONTINUED

STRESS PATCH DETAIL

As indicated below, bed the Fibre Reinforcement mesh around all openings. Bed into 1st pass of MR1 Monocouche One Coat Render.



DETAIL Stress Patch Detail

DRAWING ID MR1 / CB / 010

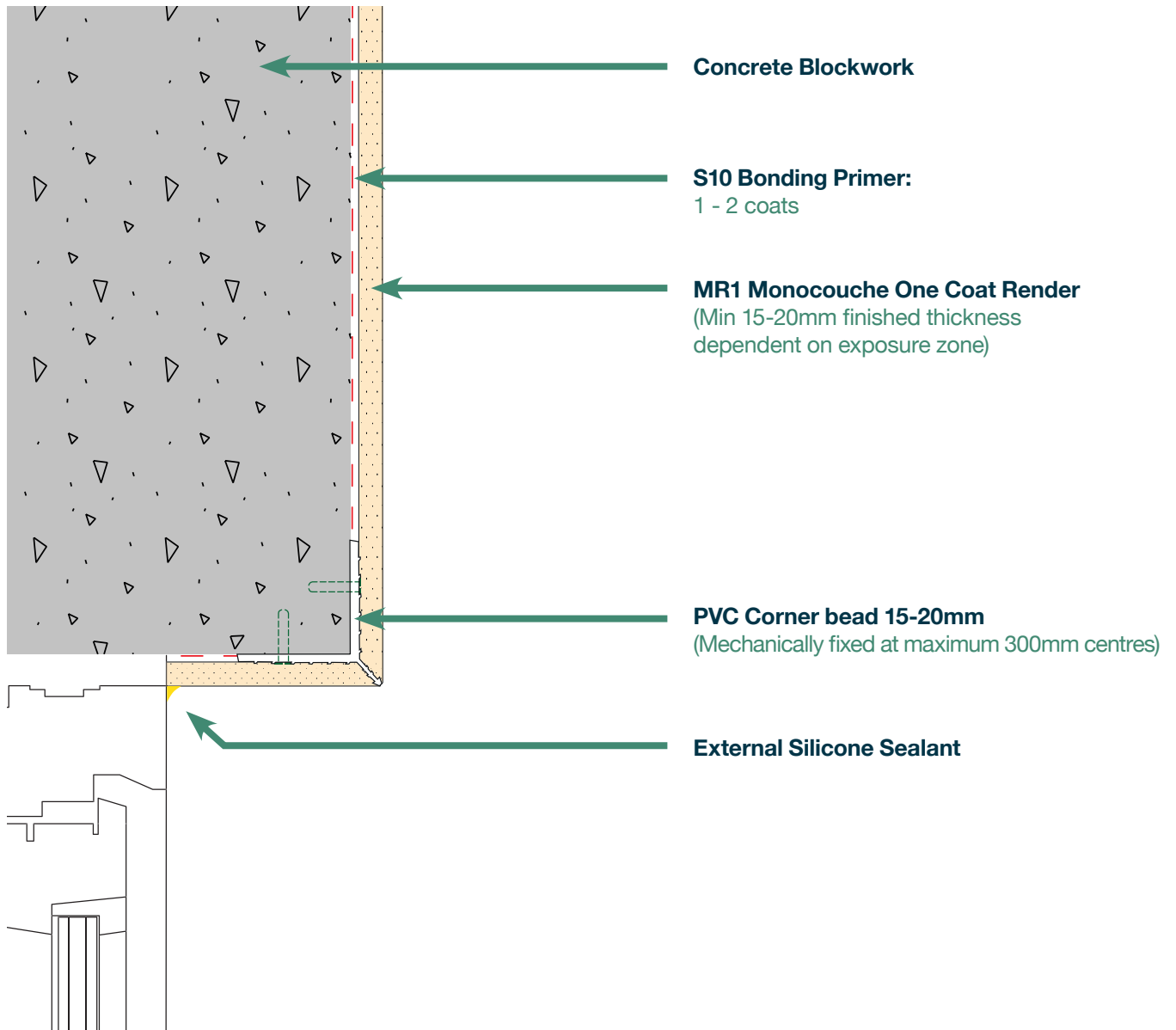
DATE JULY 2017

SCALE NTS

ISSUE 01

DETAILED DRAWINGS - CONTINUED

WINDOW / DOOR HEAD DETAIL



DETAIL Window / Door Head Detail

DRAWING ID MR1 / CB / 011

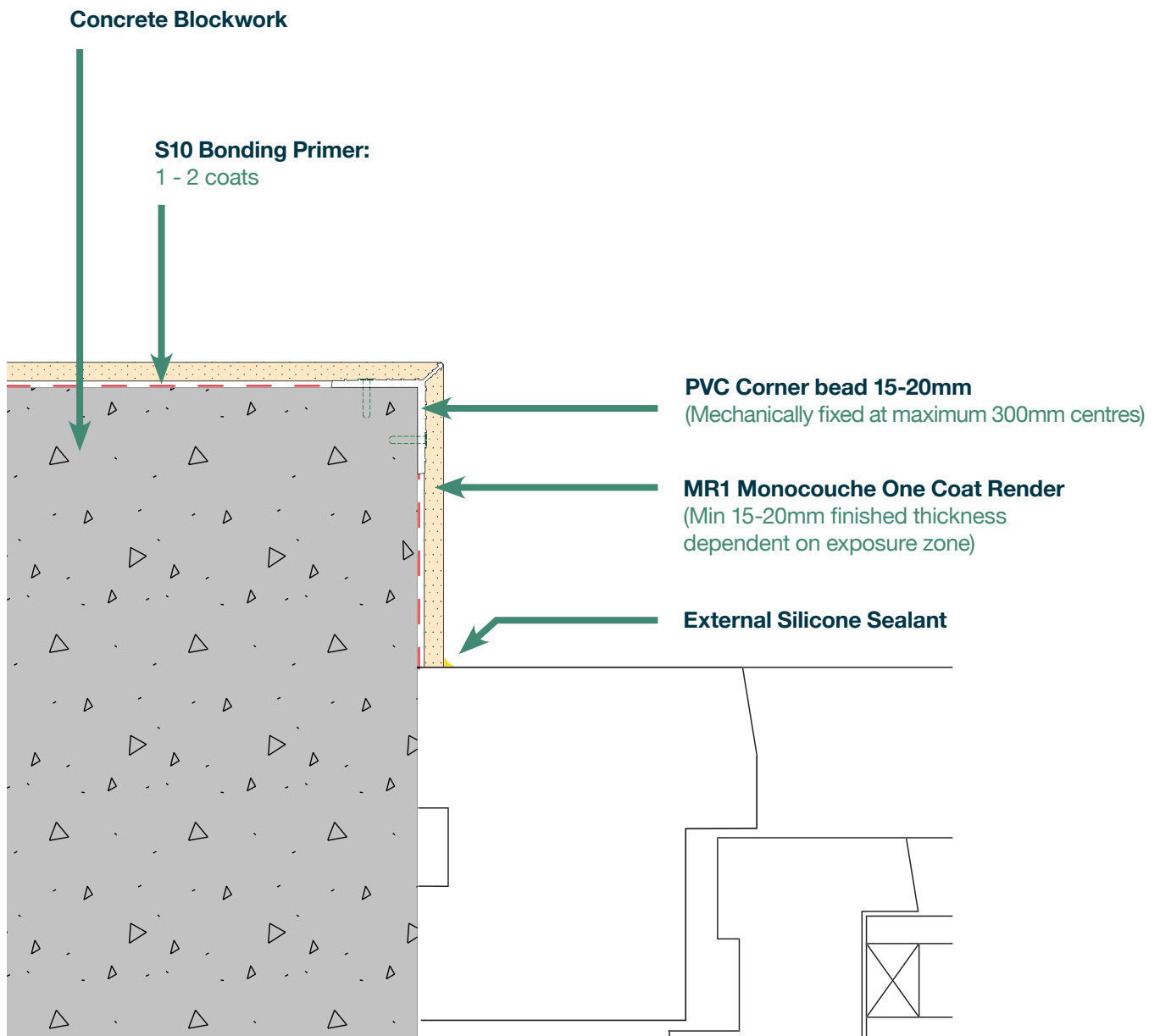
DATE JULY 2017

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ISSUE 01

DETAILED DRAWINGS - CONTINUED

WINDOW / DOOR JAMB DETAIL



DETAIL **Window / Door Jamb Detail**

DRAWING ID **MR1 / CB / 012**

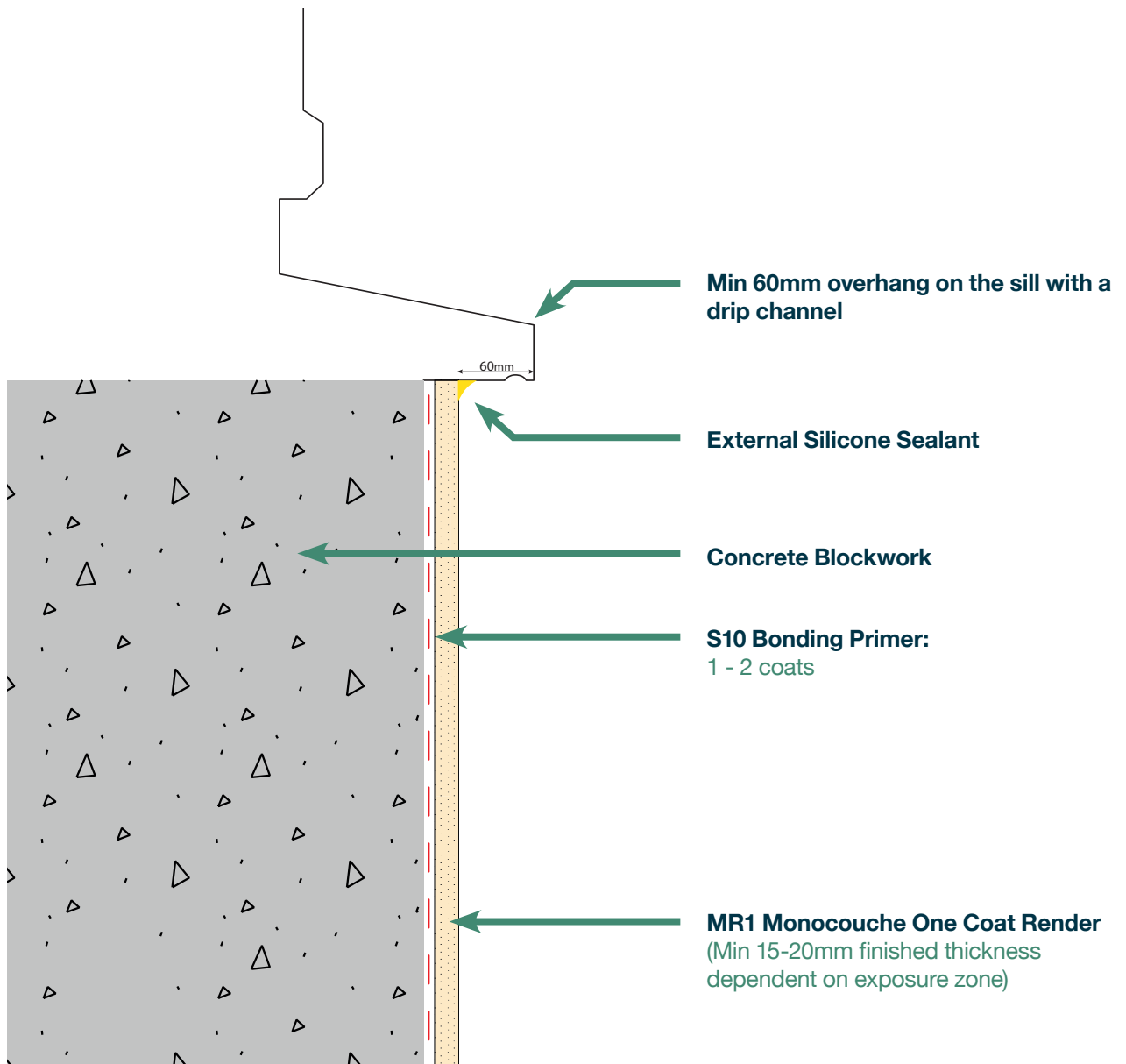
DATE **JULY 2017**

SCALE **NTS**

ISSUE **01**

DETAILED DRAWINGS - CONTINUED

WINDOW SILL DETAIL



DETAIL Window Sill Detail

DRAWING ID MR1 / CB / 013

DATE JULY 2017

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**LaRoc/Wetherby Group**

Dalton Industrial Estate, Dalton,  
North Yorkshire YO7 3HE

**T** +44 (0)1845 578555

**F** +44 (0)1845 578777

**E** [technical@la-roc.co.uk](mailto:technical@la-roc.co.uk)

[ecorend.co.uk](http://ecorend.co.uk)