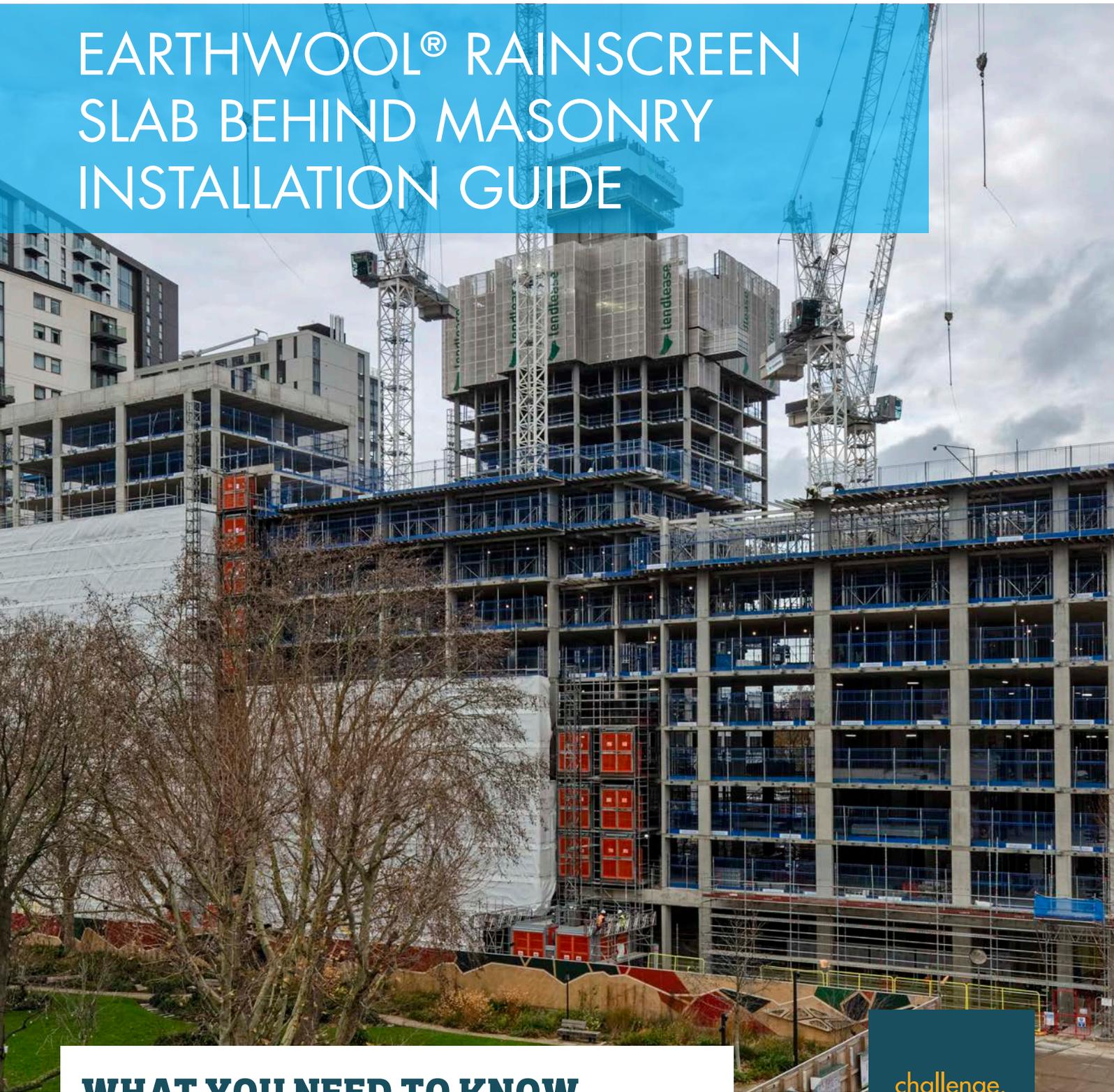


EARTHWOOL® RAINSCREEN SLAB BEHIND MASONRY INSTALLATION GUIDE



WHAT YOU NEED TO KNOW

challenge.
create.
care.

TYPICAL PARTIAL FILL BEHIND MASONRY SYSTEMS



Note:

- The brick restraint system used shall be suitable for the specific project being considered and fitted in accordance with the instructions and recommendations of the system manufacturer. If brick tie channels are used to retain the Earthwool® RainScreen Slab to the inner leaf then they shall be at a maximum of 455mm vertical centres otherwise supplementary insulation fixings must be used.
- The brick tie channels shall be fixed at a distance equal to the design thickness of the Earthwool® RainScreen Slab and so that the Earthwool® RainScreen Slab is kept in continuous intimate contact with the sheathing board but not compressed.
- The brick restraint system must be stainless steel as per BS EN 845-1.



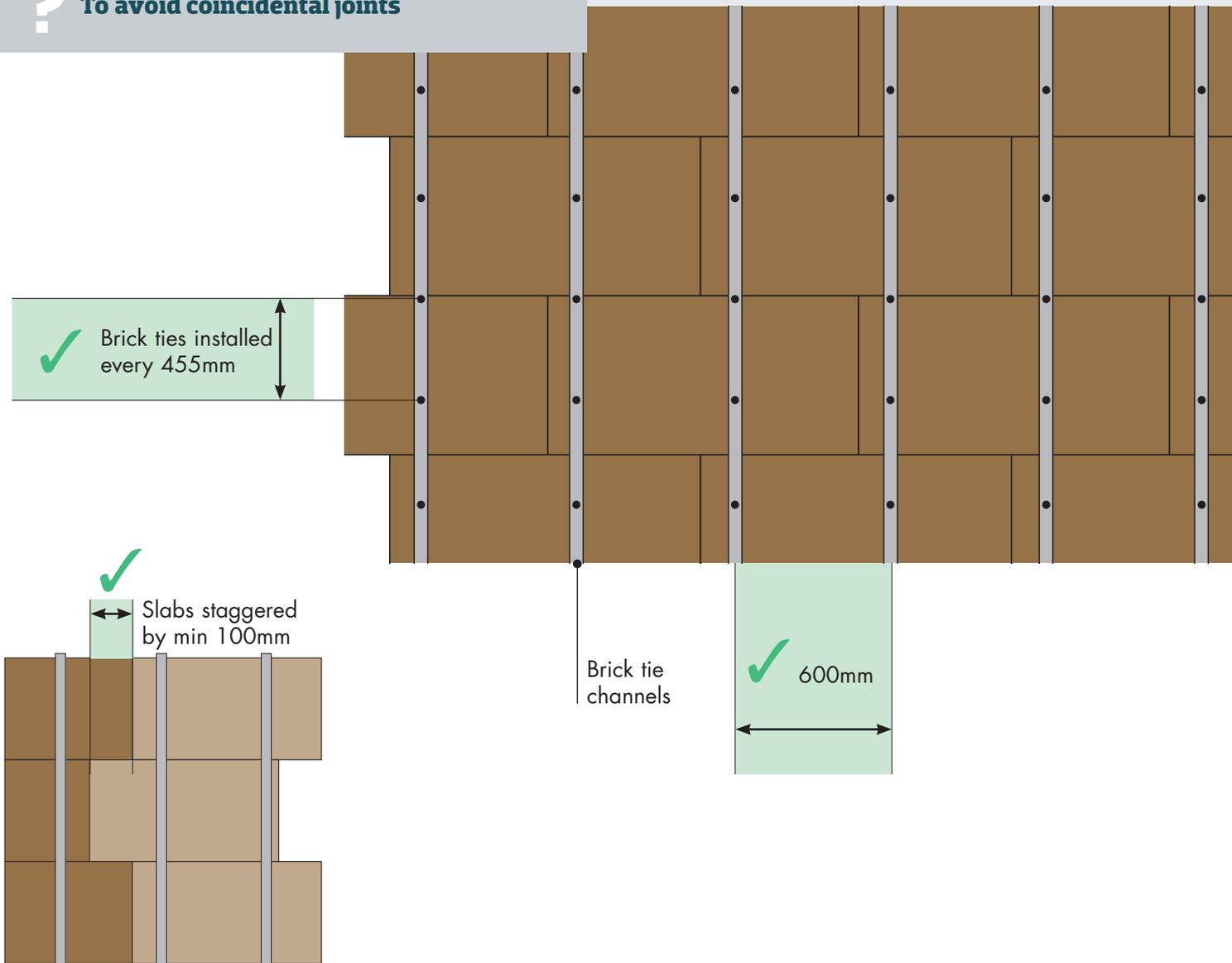
PLACEMENT

USING BRICK TIE CHANNELS

JOINTS BETWEEN SLABS SHOULD BE STAGGERED BY 100-150MM

Joints between slabs should be staggered by min 100mm and coincidental joints should be avoided. Slabs should be installed in a landscape orientation.

? To avoid coincidental joints



PLACEMENT

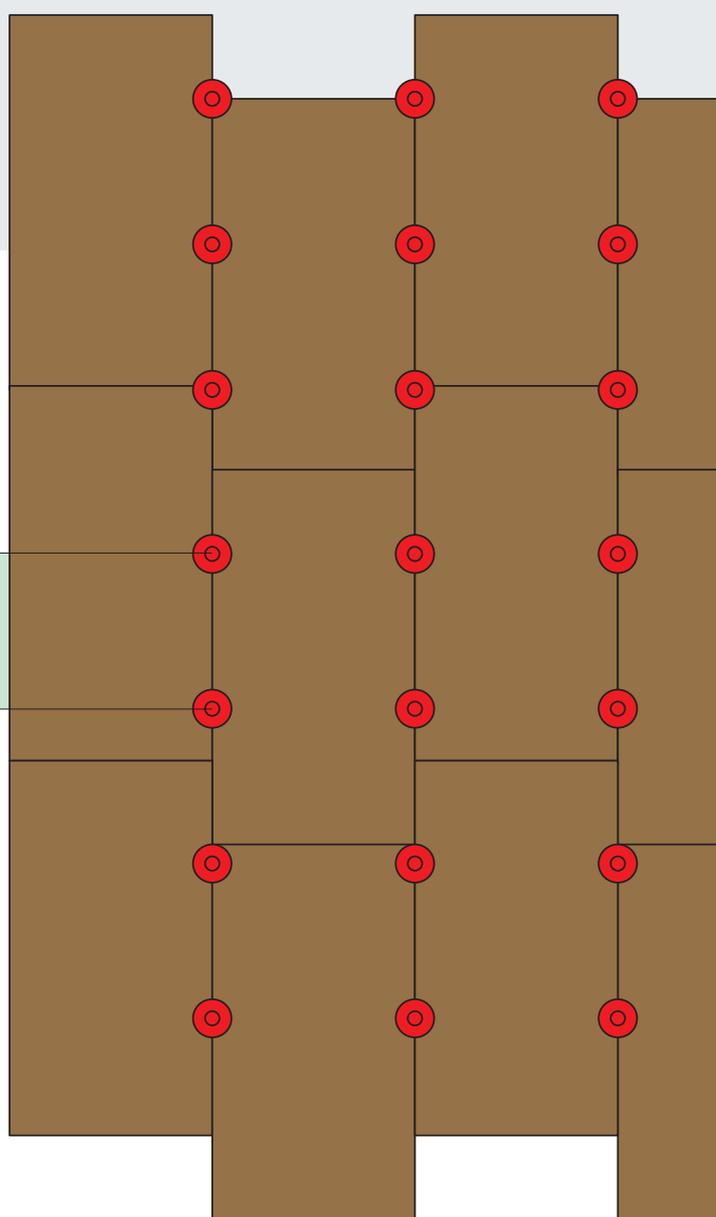
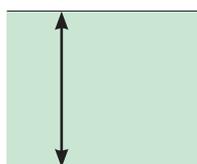
USING FRAME CRAMPS

Cramps should be fixed along stud lines at 455mm centres to lie within mortar joints, slabs should then be friction fitted between cramps such that the cramps fall between slab joints. Retaining disks are used to tie the insulation back to the CP board. Slabs can be installed in either landscape or portrait orientation.



To ensure a simple to install, strong fitment of Earthwool® RainScreen Slab to CP board

✓ 455mm



FIXING:  Frame cramp

PLACEMENT

DOUBLE-FACED

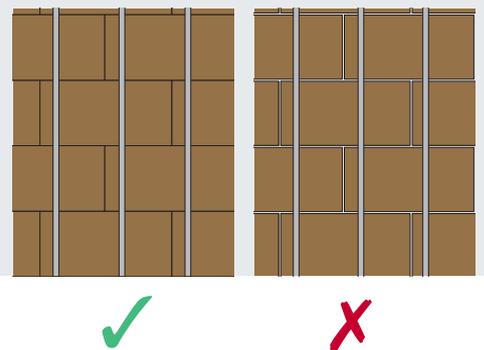
IT DOESN'T MATTER WHICH WAY ROUND IT IS INSTALLED

Installed with either face in continuous intimate contact with the substrate without affecting any thermal properties.

SLABS TO BE IN CONTACT WITH EACH OTHER

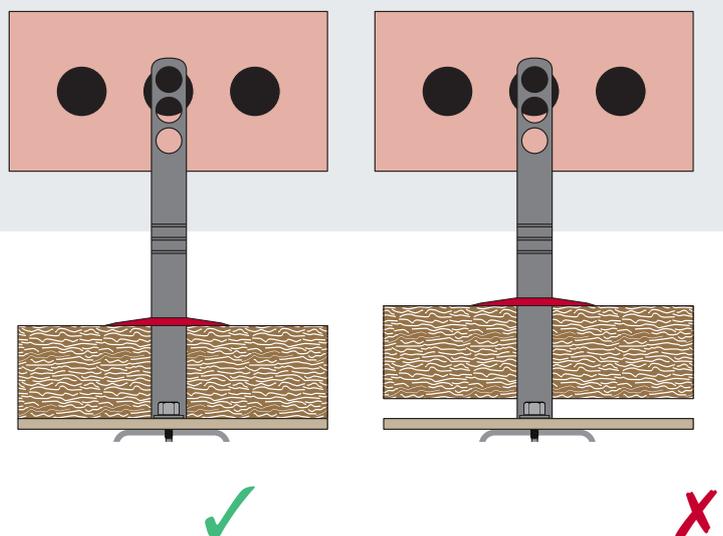
Installed such that they are tightly butted together at joints and staggered by min 150mm.

? To avoid coincidental joints and maintain acoustic performance



INTIMATE CONTACT WITH SUBSTRATE

Earthwool® RainScreen Slab should be in continuous intimate contact with the building substrate. The nature of the insulation material lends itself to accommodate any irregularities in the surface of the substrate.

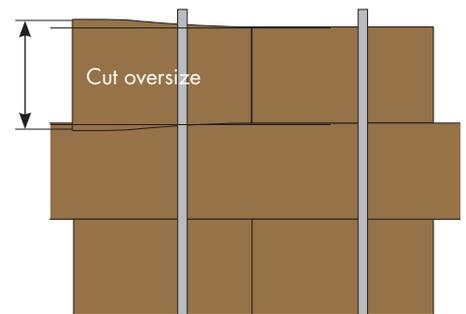


PLACEMENT

COMPRESSION FIT INTO PLACE

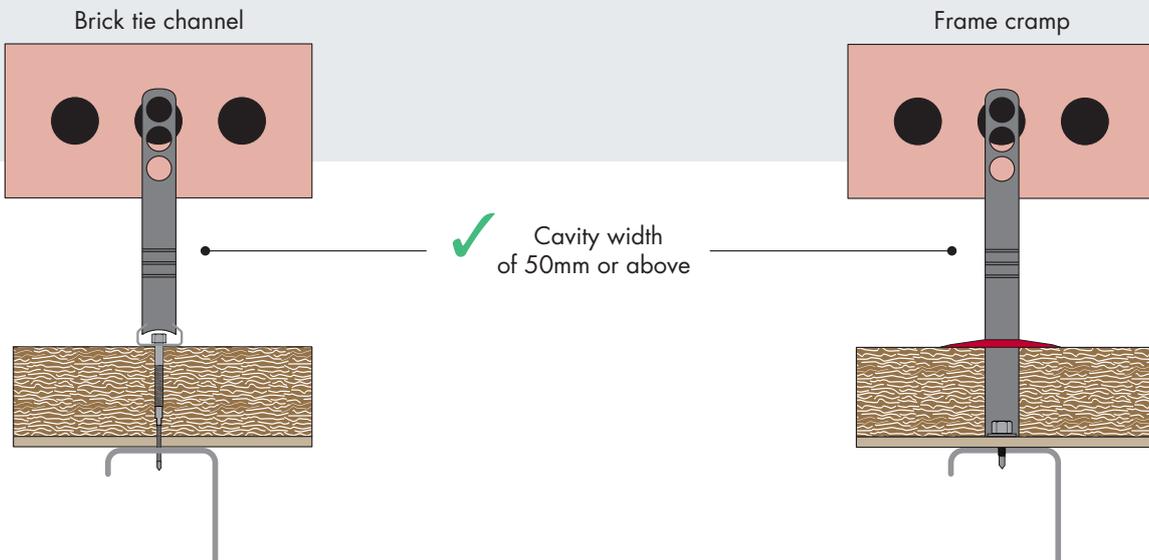
Earthwool® RainScreen Slab should be cut slightly oversize and compression fitted into place.

? To create a snug fit between slabs, reducing the chance for air gaps and ensuring thermal efficiency.



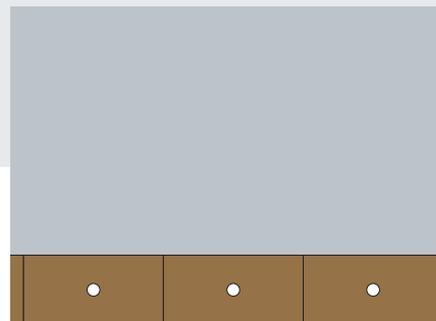
MAINTAIN A CAVITY

Make sure a cavity remains between the insulation and the external cladding. Approved Document C and NHBC guidance state that the residual cavity should not be less than 50mm wide.

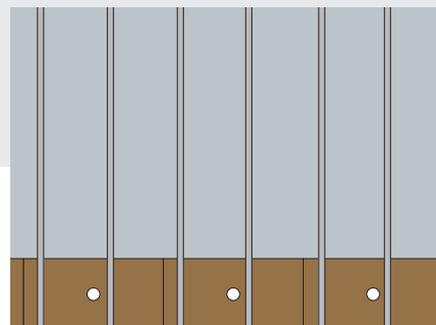


PROCEDURE

Place the first layer of Earthwool® RainScreen Slab in position against the backing structure and temporarily pin in place using an insulation retainer into the CP board.



Offer up the brick tie channel e.g. Ancon 25/14 channel and fix in position using self-drilling, self-tapping screws. Do not fix beyond the 600mm height of the first layer of Earthwool® RainScreen Slab.

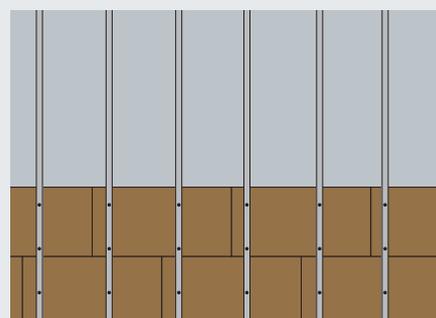


Temporary insulation fasteners can be removed if required.

From above, slide the next row of Earthwool® RainScreen Slab into place behind the brick tie channel. The slabs will be retained in position by the channel and supported by the row of slabs below.

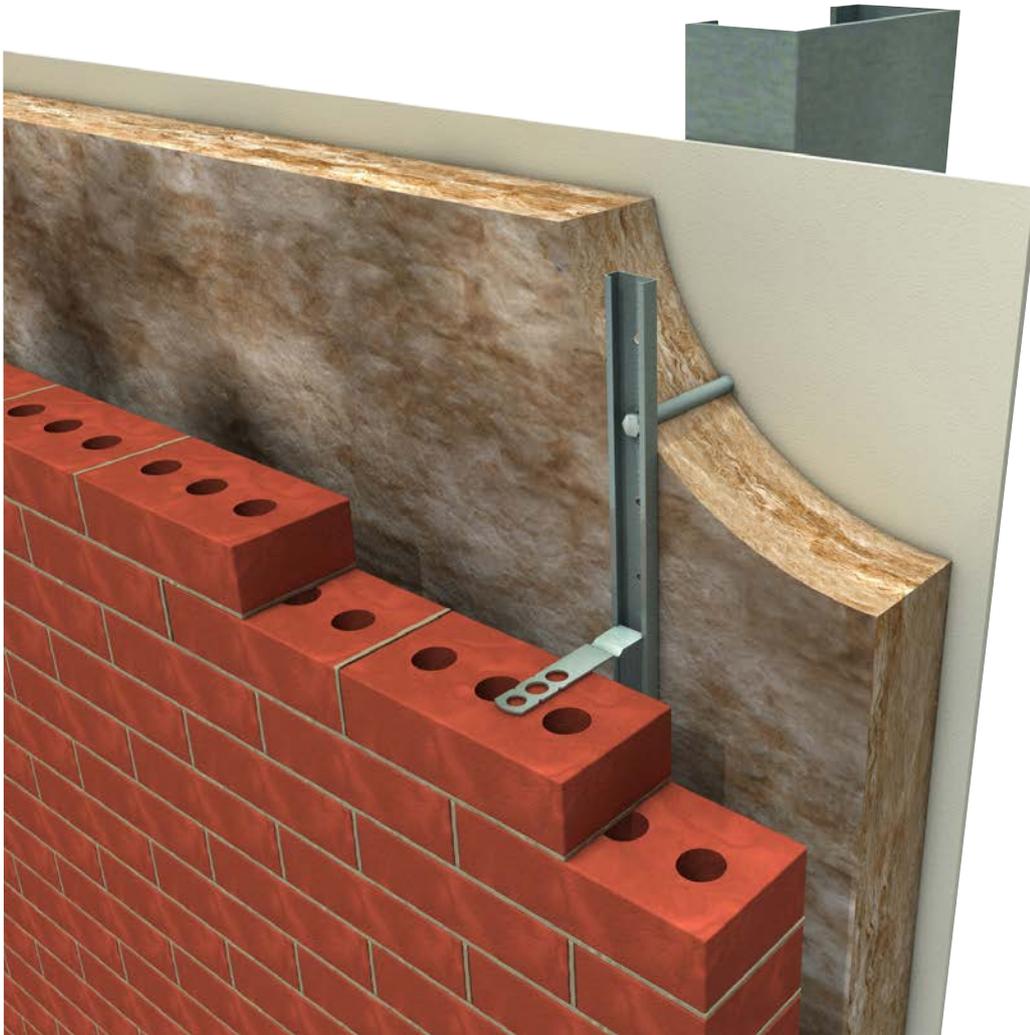
Fix the channel back to the steel frame at minimum 455mm centres using self-drilling, self-tapping screws (with compression sleeves when slab thicknesses exceed 180mm) to the height of the next layer of Earthwool® RainScreen Slab.

This procedure should be repeated for every new layer of brick tie channels.



COMPRESSION SLEEVES

When using Earthwool® RainScreen Slab above 180mm a compression sleeve, such as the Ancon Compression Sleeve, must be used around the fixing screws to provide the necessary support. This should be the same depth as the slab being used.



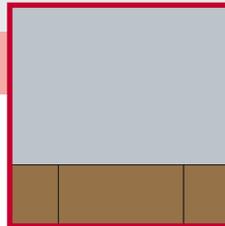
FIXINGS

POLYPROPYLENE FIXINGS

When installing the first layer of Earthwool® RainScreen Slab polypropylene fixings should be used to fix the slabs against the CP board. This means that the joints between the slabs stay tightly butted ensuring thermal performance.

✓ Fixings used to hold the first layer of slabs

✗ No fixings used in the first layer of slabs

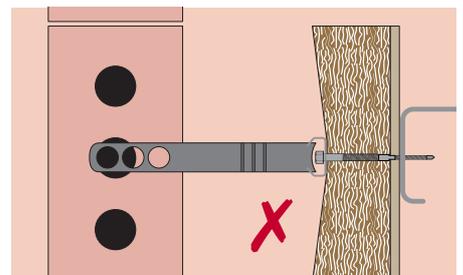
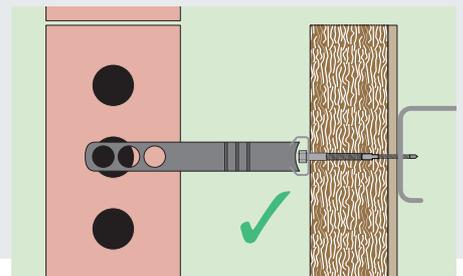


FIXING:  Polypropylene

DON'T OVERTIGHTEN MECHANICAL FIXINGS

Ensure that mechanical fixings are not overtightened, surface compression of the product is not recommended.

? **This compromises the thermal performance and can lead to localised moisture pooling.**



FIXINGS

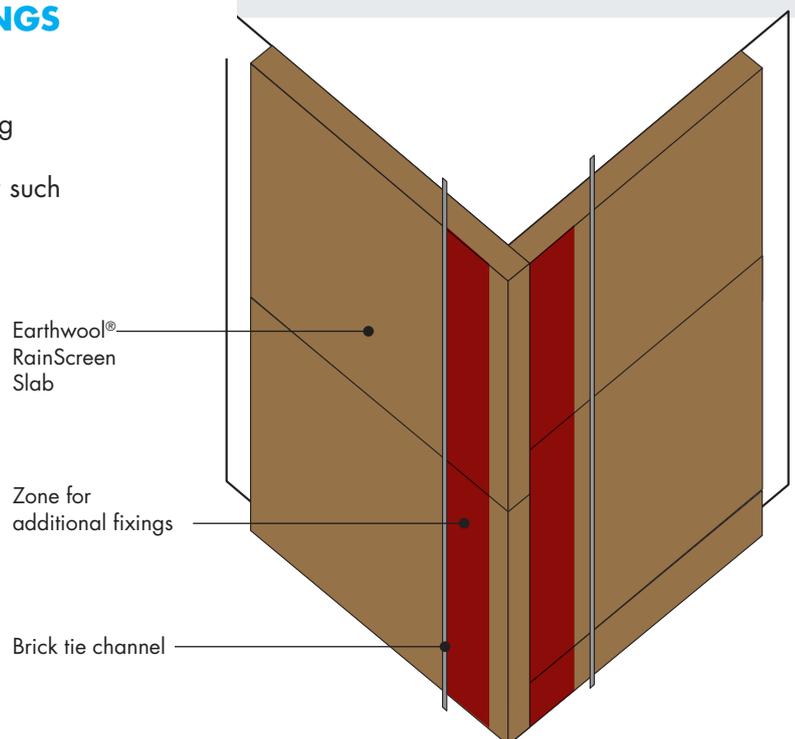
FIXINGS TO USE

Exact fixings will depend on the type of substrate. Fixings manufacturers include Ejot, Hilti, Fixfast and Fischer. Consult fixing manufacturer guidance.

Ensure fixing equipment does not damage the product during the fixing process e.g. drill chucks.

CORNER DETAILS - ADDITIONAL FIXINGS

Earthwool® RainScreen Slab should be installed using additional fixings around corner details where an additional fixing is added to each slab at the corner such that it is fixed firmly to the super structure.

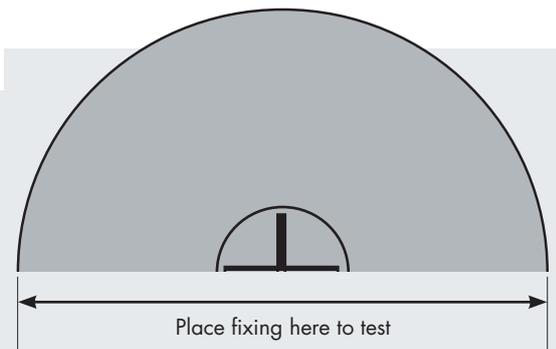


FIXINGS MINIMUM HEAD DIAMETER OF 70MM

When installing the fixings prior to the brick tie channels being installed, a fixing with a minimum head diameter of 70mm must be used, to ensure optimum strength of fixing between Rock Mineral Wool and substrate.

✓ Fixings 70mm or ABOVE

✗ Fixings BELOW 70mm

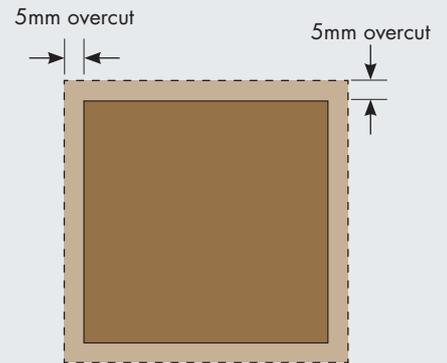




CUTTING

CUT NEATLY AROUND PENETRATIONS AND CONSTRUCTION DETAILS - CUT OVERSIZE BY 5MM

Cut neatly around penetrations and construction details. When cutting around penetrations, cut oversize by 5mm to allow some local compression of the slab around the feature to ensure a snug fit.



? **To maximise thermal performance.**

✓ Leave 5mm overcut

✗ Cut directly up to penetrations

CUT NEATLY WITH A SHARP INSULATION SAW/KNIFE

Cut neatly with a fine serrated saw or a large bladed knife.

? **Gives a factory quality cut and prevents tearing**

✓ Use insulation saw or knife

✗ Cut using bladed saw

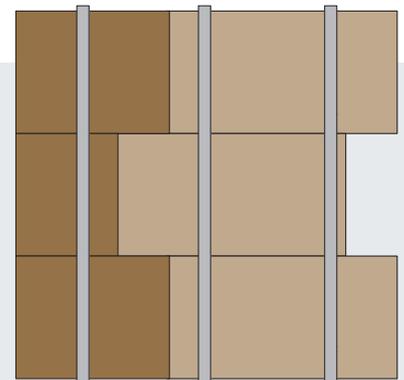


AREAS THAT CANNOT ACCEPT FULL SLAB SHOULD USE A SLAB SECTION

Areas of insulation that do not require a full slab (aside from corners where a full slab must be used) can be filled using a slab section where the section is cut slightly oversize to give a snug fit and fixed at 600mm intervals in the centre of the section.

✓ Slab cut and snug fit

✗ Loose fit for cut slab section

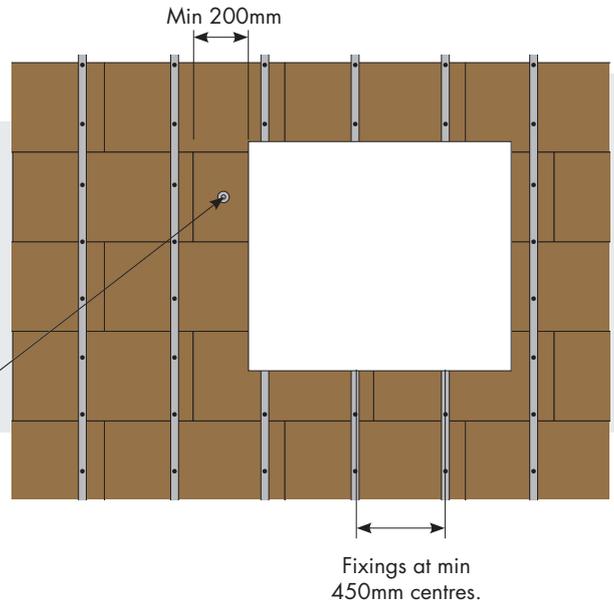


DETAILS

WINDOW DETAILS

Cut to fit around window details and additional fixings used at the slab edges.

Additional fixings and brick tie channels should be fixed into the details border studs or secondary support studs



For small slab sections that cannot take a brick tie channel, metal fixings should be used to hold the slab against the substrate.

FIXING:  Metal

INSTALLATION AROUND SERVICE PENETRATIONS

Product should be offered up to penetration applying sufficient pressure to allow a small indent to be made in the product. Indent should be made on the face that will come into contact with the substrate when the product is installed.

Cut a slot in the product with a serrated saw or large bladed knife. Install product over the penetration taking care not to damage the external face of the slab. Ensure that the product is in intimate contact with neighbouring slabs. Secure slab to wall substrate with mechanical fixings in accordance with the design specification. Consideration should be made to ensure appropriate fire stopping measures are used around penetrations, especially plastic.



? Ensures a tight fitment of slabs around penetrations, ensuring maximum thermal efficiency.

FIRE BARRIERS

Cavity barriers should be installed to meet the requirements of Approved Document B - England and Wales, Handbook Section 2 - Scotland and Technical Booklet E - Northern Ireland.

MAINTENANCE

ROLLING FRONT - BEST PRACTICE

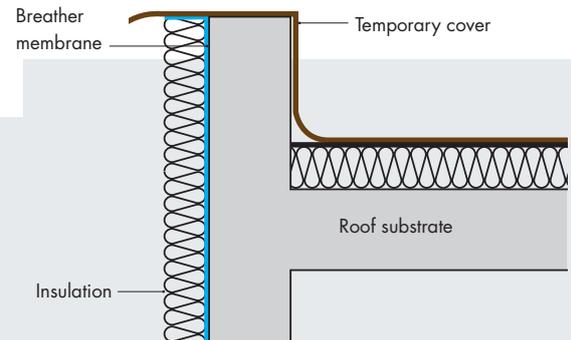
Wherever possible Earthwool® RainScreen Slab should be covered up with the outer leaf masonry as work proceeds, on the basis of an advancing front.

✓ Outer leaf masonry installed to reduce weathering



PARAPET / ROOF LEVEL PROTECTION DURING INSTALLATION

The top edge of the slabs should be covered and any run off water directed away from running down the face of the slabs.

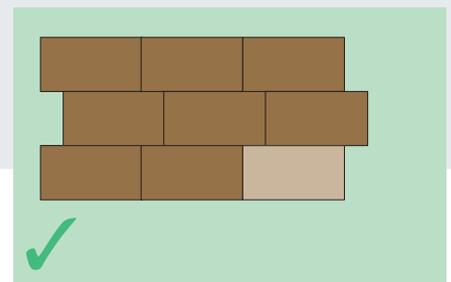
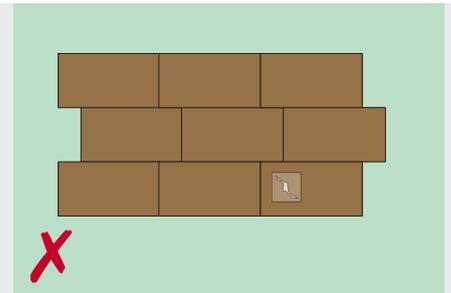


CONSTRUCTION REPAIRS

In the event of small repairs being needed on site, Knauf Insulation recommends the replacement of full slabs wherever possible before installing the brick restraint channels or the insulating retaining clips on the frame cramps

✓ Full slab replacement after damage

✗ Small patched repair



MAINTENANCE

PRE-INSTALLATION STORAGE ON SITE

Earthwool® RainScreen Slab is supplied in polythene packs or shrink wrapped pallets which are designed for short term protection only.

For longer term protection on site the product should either be stored indoors or under cover and off the ground.

Earthwool® RainScreen Slabs should not be left permanently exposed to the elements.

✓ Slabs protected from weathering potential

✗ Slabs exposed to the elements



KNAUFINSULATION

CONTACTS

Specification Team

www.knaufinsulation.co.uk/findmyrep

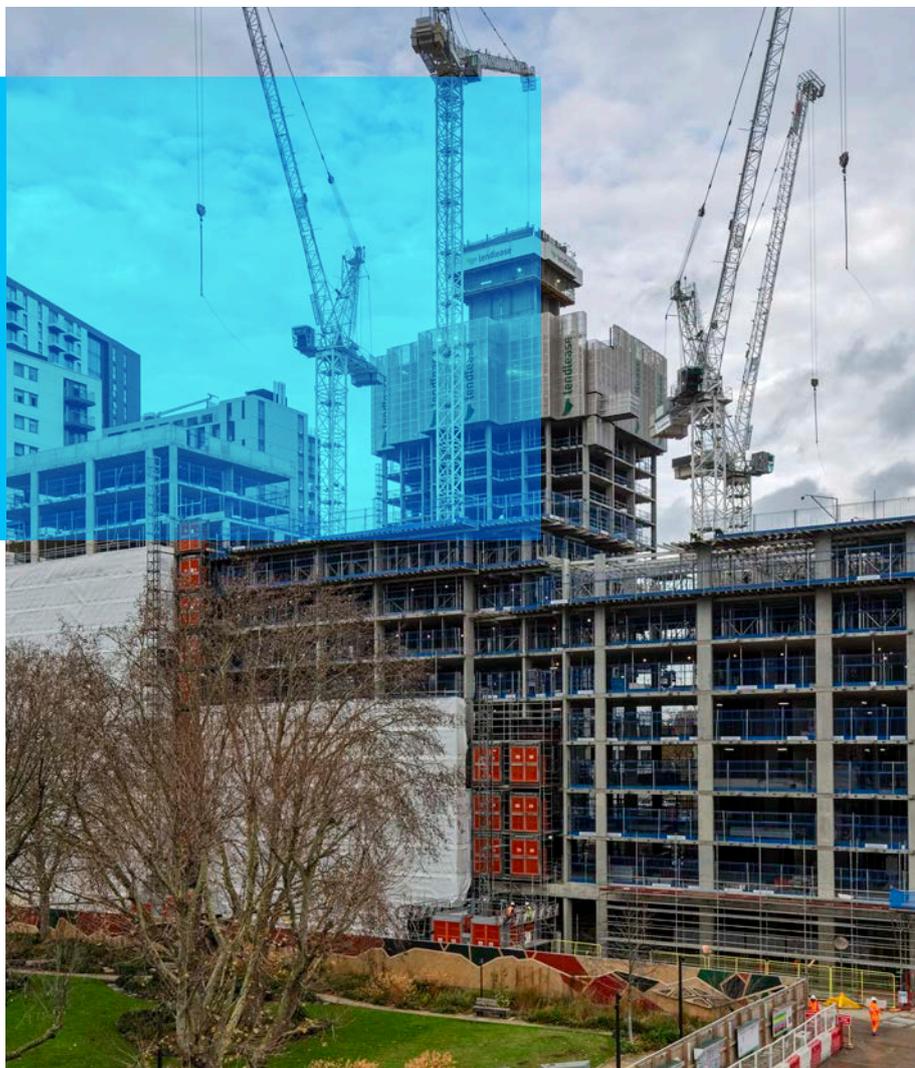
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For more information please visit

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