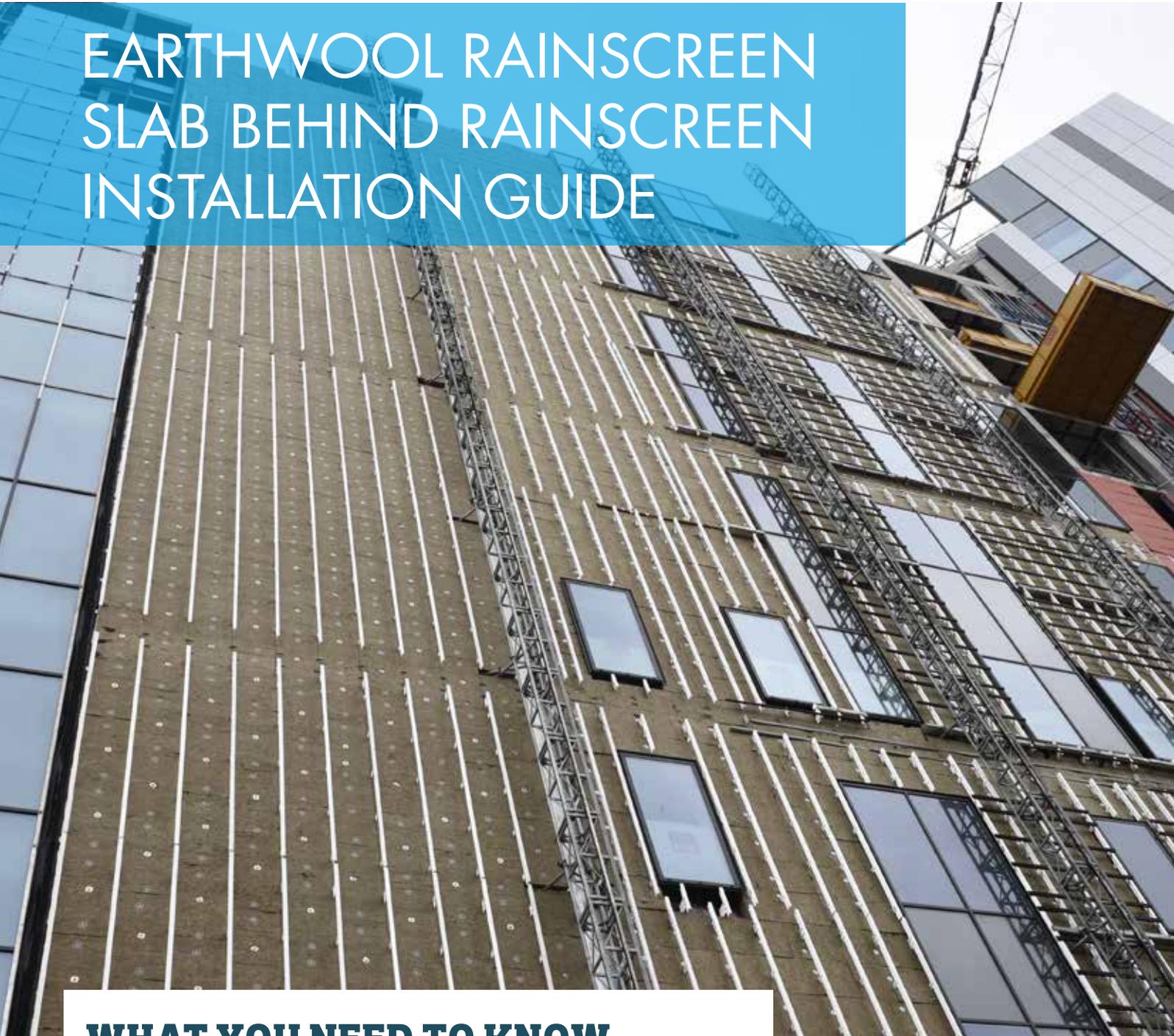


EARTHWOOL RAINSCREEN SLAB BEHIND RAINSCREEN INSTALLATION GUIDE



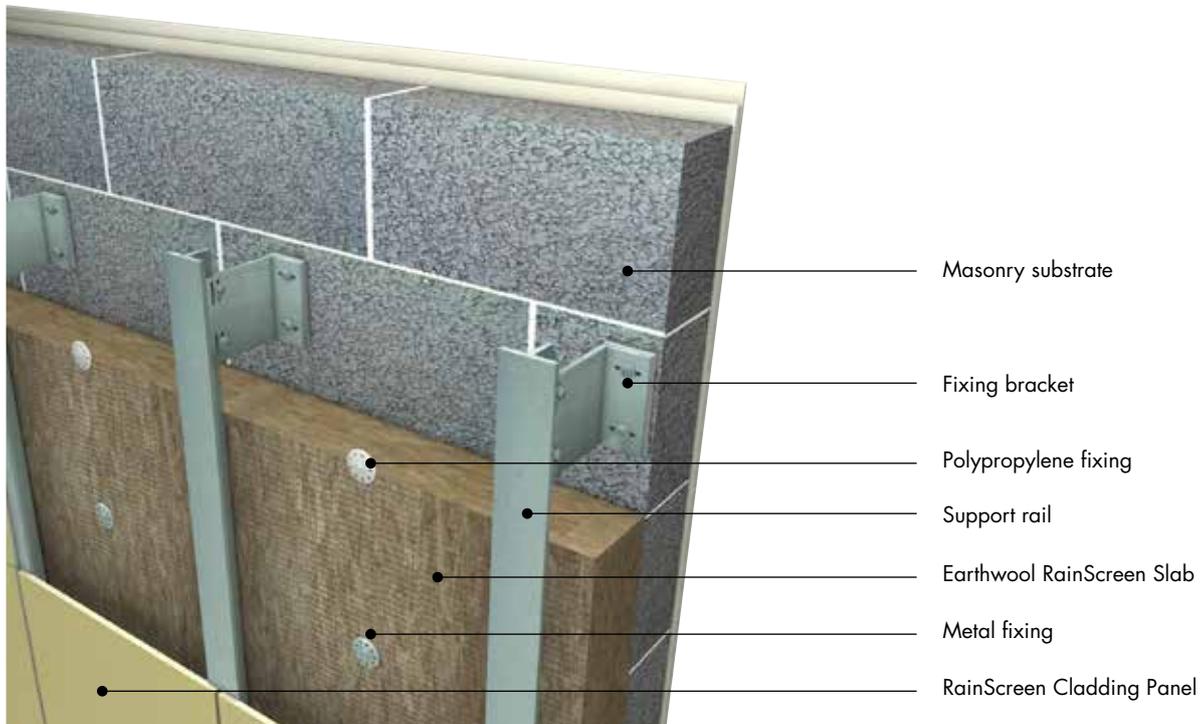
WHAT YOU NEED TO KNOW



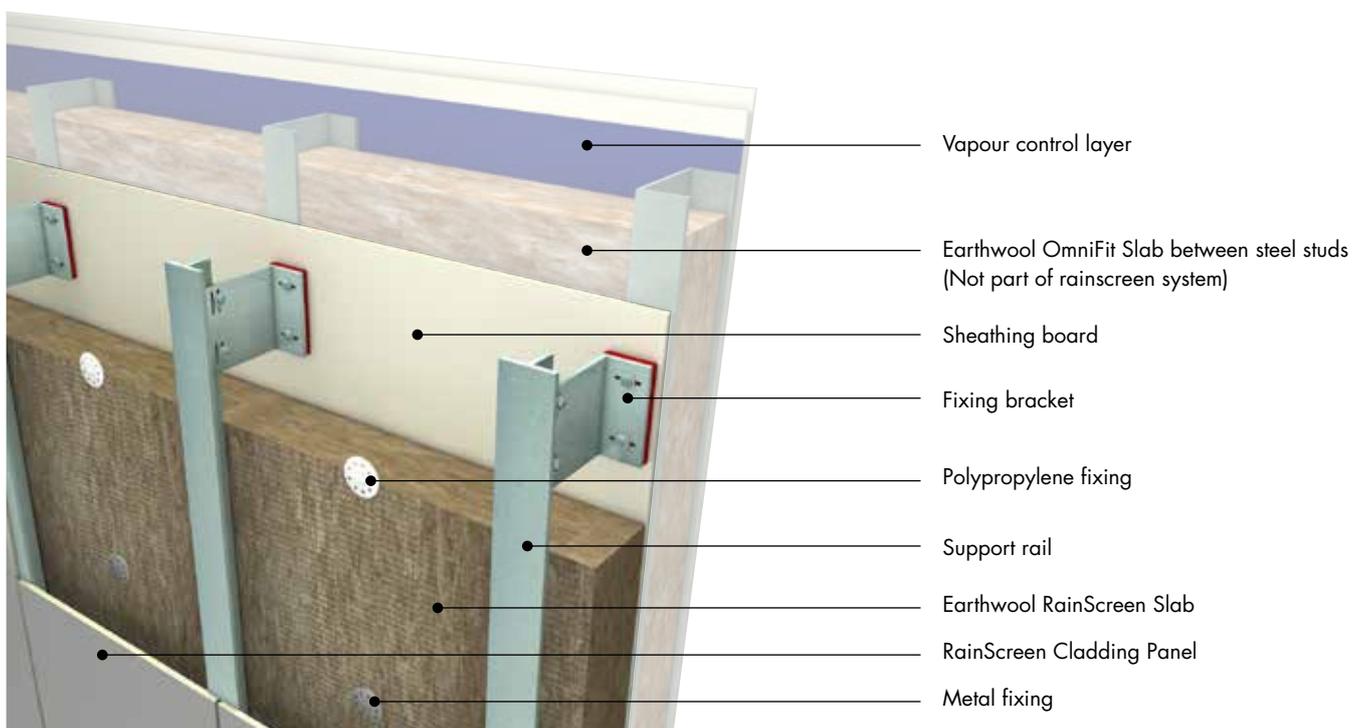
challenge.
create.
care.

TYPICAL RAINSCREEN SYSTEMS

MASONRY SUBSTRATE INSTALLATION



METAL RAIL INSTALLATION



Note: Breather membrane can be used although not shown

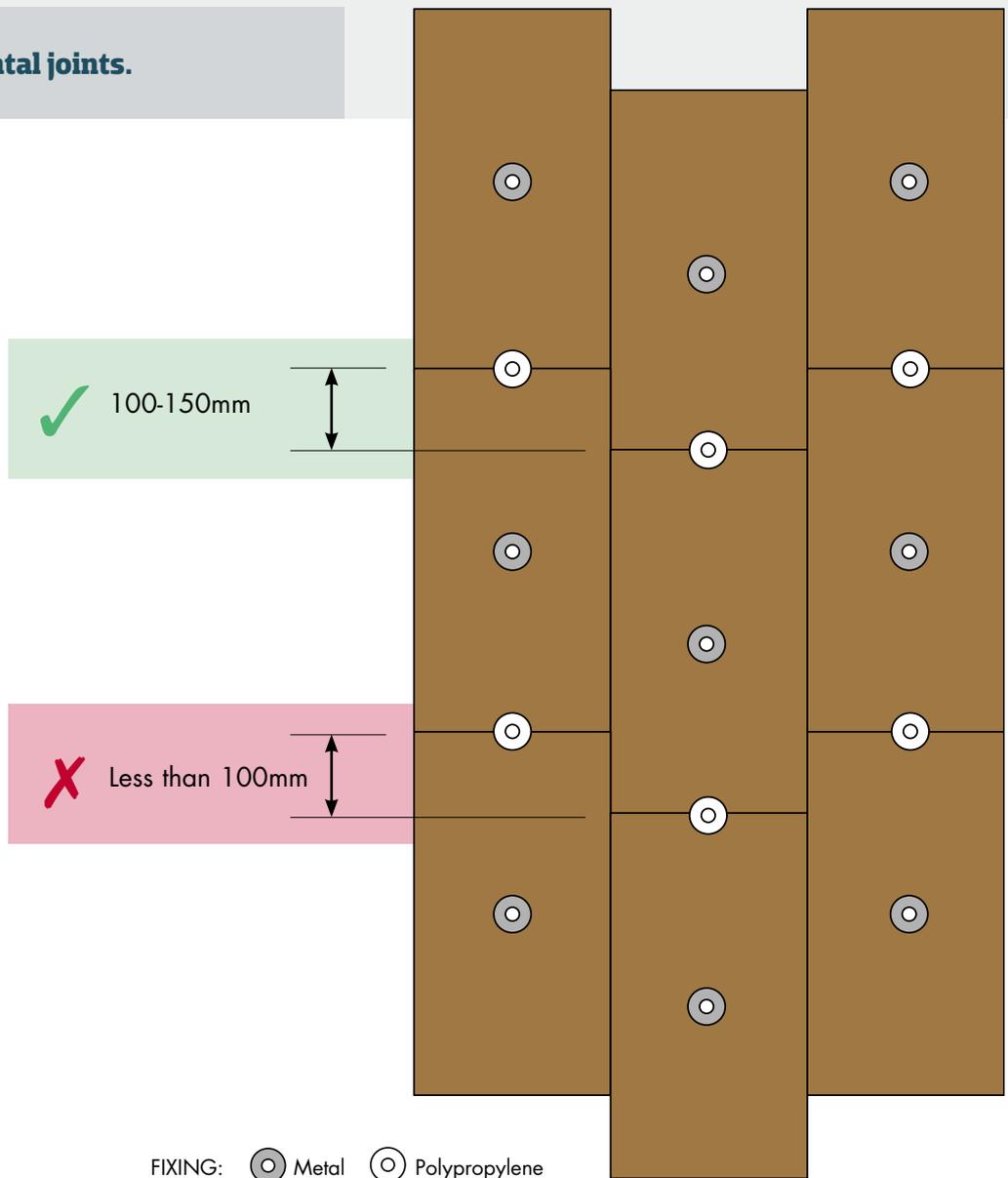


PLACEMENT

JOINTS BETWEEN SLABS SHOULD BE STAGGERED BY 100-150MM

Joints between slabs should be staggered by 100-150mm and coincidental joints should be avoided.

? **To avoid coincidental joints.**



Note: Fixings as per guidance given in section 6.3 BR 135 3rd Edition



PLACEMENT

DOUBLE-FACED

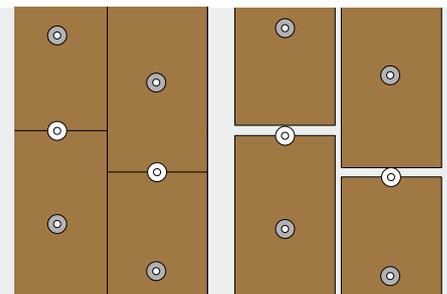
IT DOESN'T MATTER WHICH WAY ROUND IT IS INSTALLED

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

SLABS TO BE IN CONTACT WITH EACH OTHER

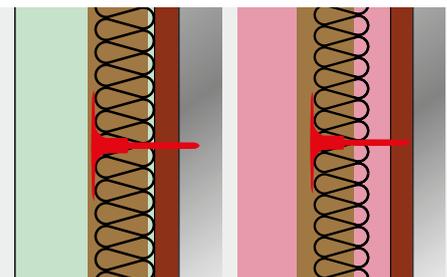
Installed such that they are tightly butted together at joints and joints staggered by 100-150mm.

? To avoid coincidental joints and maintain acoustic performance.



INTIMATE CONTACT WITH SUBSTRATE

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



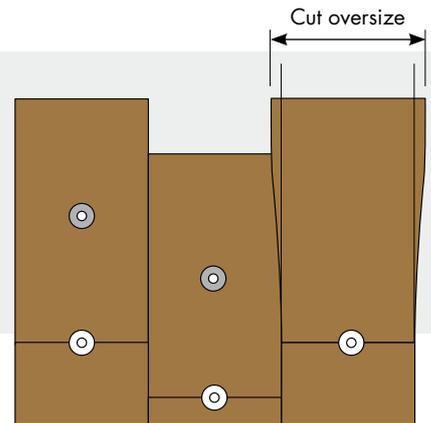


PLACEMENT

COMPRESSION FIT INTO PLACE

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

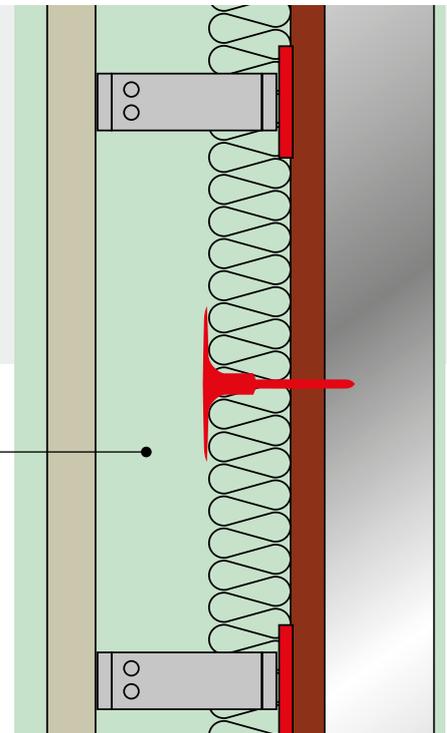
? To create a snug fit between slabs, reducing the chance for air gaps and ensuring thermal efficiency.



MAINTAIN A VENTILATED CAVITY

Make sure a ventilated cavity remains between the insulation and the external cladding. NHBC guidance states a requirement for 50mm when open joints are used and 38mm when baffled or labyrinth joints are used.

- ✓ Cavity of 50mm
- ✗ Cavity below 50mm unless baffled or labyrinth joints used





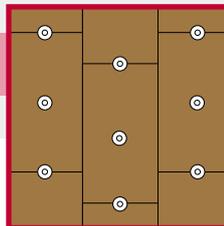
FIXINGS

POLYPROPYLENE AND METAL FIXINGS

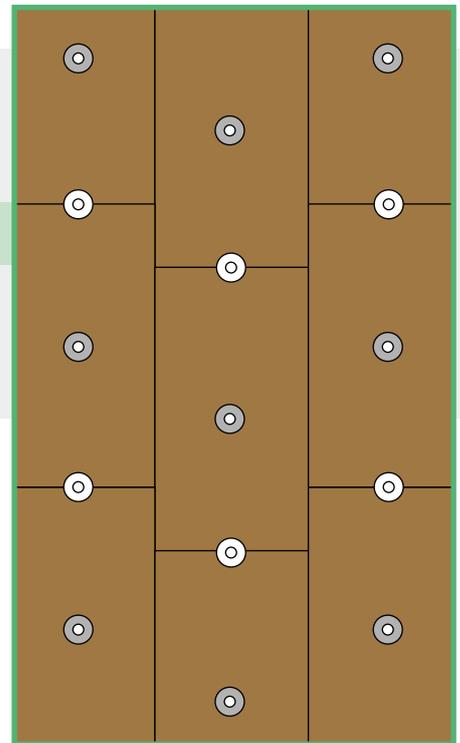
Fix using a combination of metal and polypropylene fixings in accordance with the detailed fixing pattern.

✓ **Mix of materials**

✗ **Fixings all one material**



FIXING: ○ Metal ○ Polypropylene



? **Metal fixings for fire safety**

Metal fixings retain their strength in the event of a fire

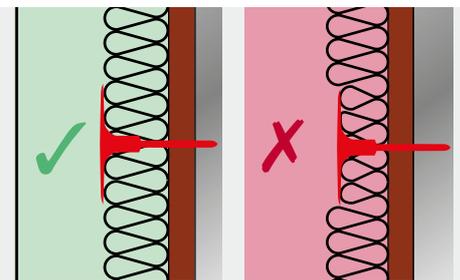
Fixing pattern

For fire safety and retention of insulation slab

DON'T OVERTIGHTEN MECHANICAL FIXINGS

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

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





FIXINGS

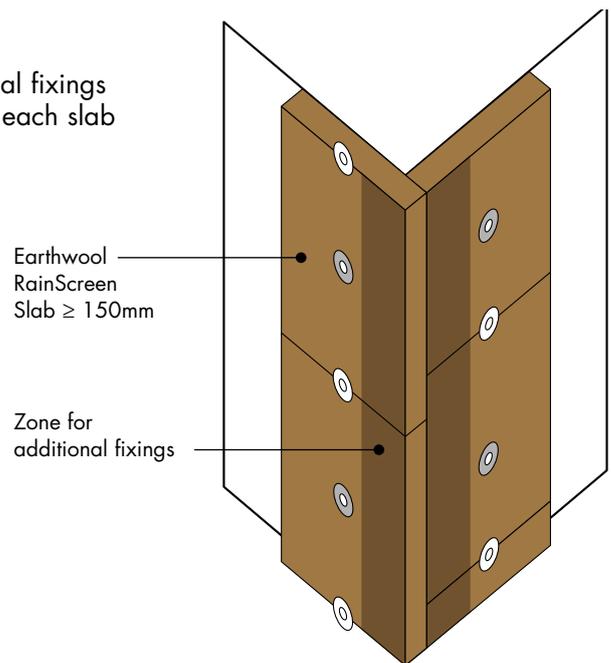
FIXINGS TO USE

Exact fixings will depend on the type of substrate. Fixings manufacturers include Ejot, Hilti 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.

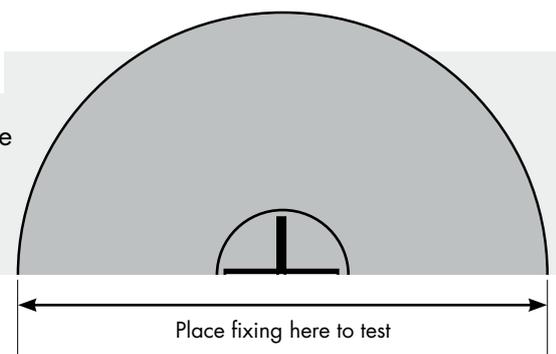


FIXINGS MINIMUM HEAD DIAMETER OF 70MM

Provides optimum strength of fixing between rock mineral wool to substrate

✓ Fixings 70mm or ABOVE

✗ Fixings BELOW 70mm

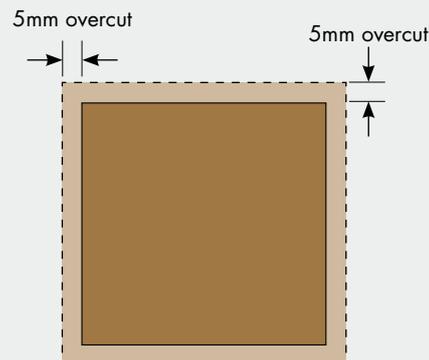




CUTTING

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

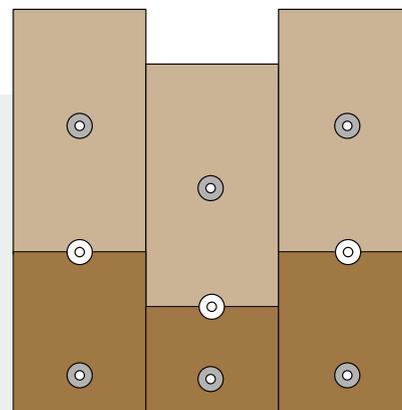


AREAS THAT CANNOT ACCEPT FULL SLAB SHOULD USE A SLAB SECTION

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





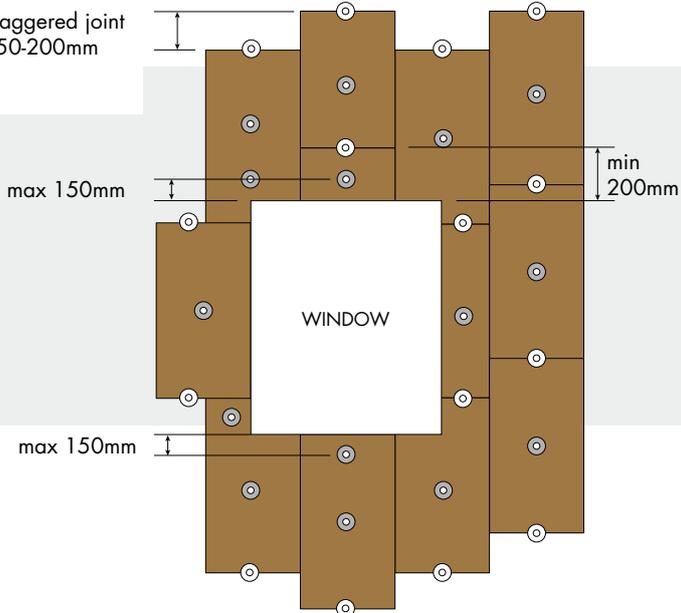
DETAILS

WINDOW DETAILS

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

Each slab should contain at least one metal fixing.

Staggered joint
150-200mm



FIXING:  Metal  Polypropylene

INSTALLATION AROUND BRACKET 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 bracket 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.



? 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 cladding as work proceeds, on the basis of an advancing front.

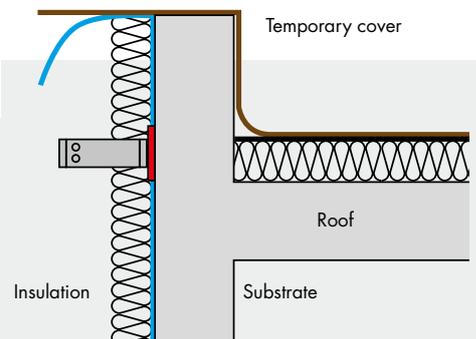
✓ Cladding installed to cover rainscreen to reduce weathering



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.

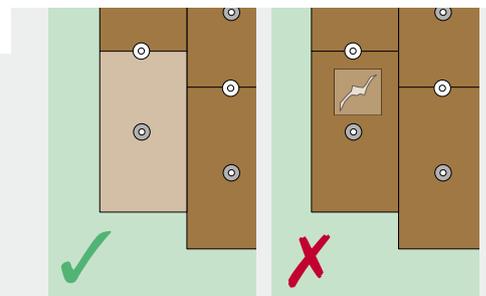
Breather membrane



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 RainScreen panels.

✓ 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

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email: sales.uk@knaufinsulation.com

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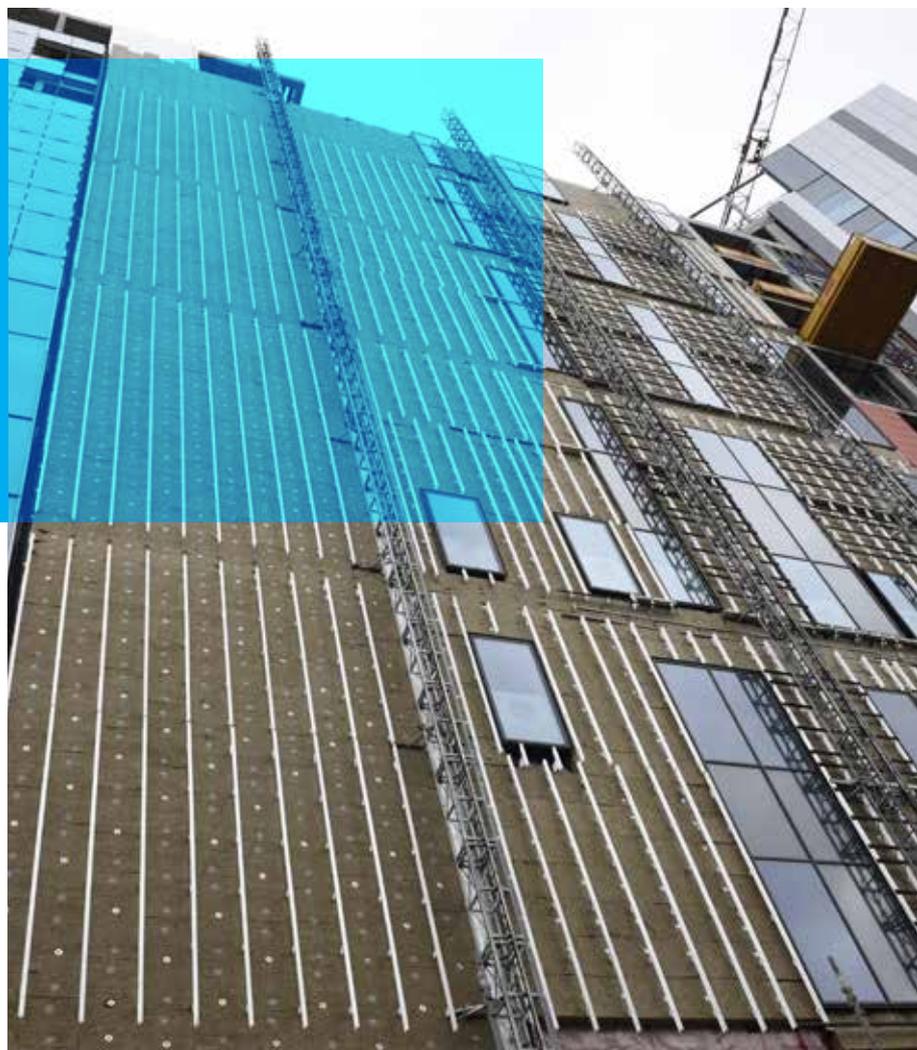
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Literature

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