OSCB Contractors' Guide

Installation of ROCKWOOL SP FireStop OSCB

ROCKWOOL®

Introduction

This guide is intended to assist with the installation of ROCKWOOL SP FireStop OSCB.

Note that OSCB is only compatible for use in conjunction with ROCKWOOL RainScreen Duo Slab® and NyRock RainScreen 032.

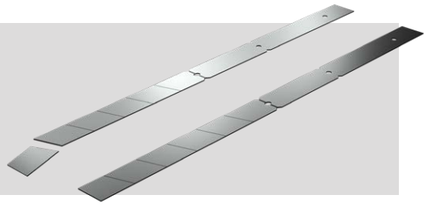
Guidance for details which fall outside the scope of ASFP TGD-19 is based on test evidence carried out to the principles of TGD-19, and is provided only as best-practice.

Installation instructions

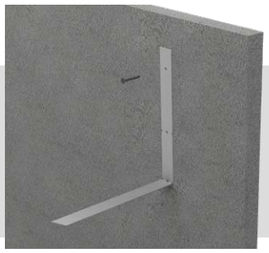
OSCB 25

Note that for cavities below 75mm, the barrier should be fixed directly to the substrate using No.10 stainless steel screws at 250mm centres. For cavities 75mm and above, follow the steps given below.

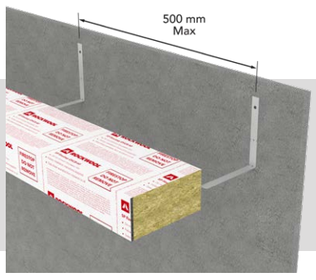
1. Form the supplied brackets into an L shape and snap by hand to the required length*. The bracket must penetrate a minimum of 50% into the barrier width, but should not penetrate the intumescent layer.



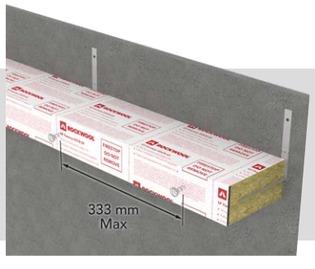
2. Fix the brackets at maximum 500mm centres, ensuring non-combustible and corrosion resistant fixings are used – e.g. DeWalt Wall Dog, 6mm diameter thread x 32mm long or similar. One screw is required per bracket.



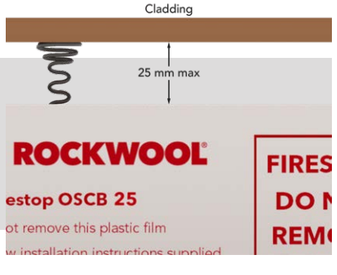
3. Impale OSCB onto the installed brackets at mid-depth, ensuring that the intumescent strip faces the open airspace. Ensure a tight butt joint between adjacent sections of barrier.



4. Screw three pigtail screws by hand through the intumescent and into the barrier. Once the cladding is installed these should be wound out to touch the inside face of the cladding.



5. Ensure that the airspace does not exceed 25mm and that all of the pigtail screws are in contact with the cladding panel.

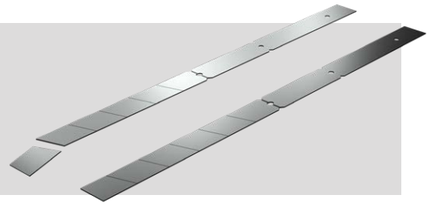


*Use caution when adjusting and handling brackets due to sharp edges. Protective gloves should be used.

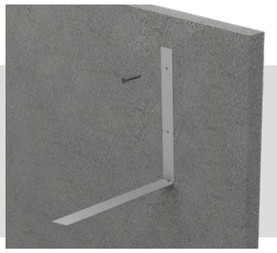
OSCB 44

Note that for cavities below 100mm, the barrier should be fixed directly to the substrate using No.10 stainless steel screws at 250mm centres. For cavities 100mm and above, follow the steps given below.

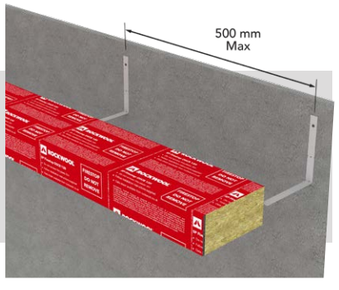
1. Form the supplied brackets into an L shape and snap by hand to the required length*. The bracket must penetrate a minimum of 50% into the barrier width, but should not penetrate the intumescent layer.



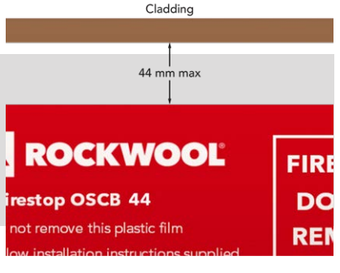
2. Fix the brackets at maximum 500mm centres, ensuring non-combustible and corrosion resistant fixings are used – e.g. DeWalt Wall Dog, 6mm diameter thread x 32mm long or similar. One screw is required per bracket.



3. Impale OSCB onto the installed brackets at mid-depth, ensuring that the intumescent strip faces the open airspace. Ensure a tight butt joint between adjacent sections of barrier.



4. Ensure that the airspace does not exceed 44mm.



*Use caution when adjusting and handling brackets due to sharp edges. Protective gloves should be used.

General installation notes

- Do not remove the weatherproofing polythene layer.

- Ensure that OSCB is installed with the intumescent strip facing outwards, towards the cladding panel. Do not apply tape over the face of the barrier.

- Make sure that OSCB is flush to the substrate with no gaps present. Any voids of up to 10mm should be filled with ROCKWOOL Acoustic Intumescent Sealant.

- Ensure there are no gaps between adjacent sections of OSCB.

- Ensure that the intumescent strip is free to expand to the rear of the cladding without obstruction, e.g. vertical cladding rails preventing free expansion.

TIP: If suppliers of cladding systems are informed early in the design process for the rails, they are able to appropriately incorporate the locations of the horizontal barriers to ensure that the intumescent strip on the SP FireStop OSCB is free to to expand to the rear of the cladding without obstruction.

Cutting of OSCB

Perpendicular to length

When cutting OSCB into smaller sections:

- Do not cut into sections smaller than 200mm;
- There should be a minimum of two brackets and two pigtail screws (where applicable) per cut section.

Parallel to length

- Between the minimum and maximum, OSCB is available in any width and should be ordered appropriately to ensure that the product does not need to be cut down on site.
- OSCB can be supplied pre-cut to accommodate a continuous angle – for more information please contact your local ROCKWOOL representative.
- There may however be occasions where it is necessary to trim the back of OSCB to suit a particular detail. In such situations the guidance below will apply.

1. OSCB 25 only: Insert the pigtail screws to secure the intumescent strip.

2. Carefully remove the polythene sleeve by cutting along one of the seams.

3. Using a panel saw or bandsaw, cut the barrier to the desired width. Be mindful of the screws fixing the intumescent strip to the stone wool.

4. Re-wrap the polythene sleeve around OSCB, trim away any excess polythene, then reseal using clear packaging tape (Vibac or similar) on the upper or lower surface only.

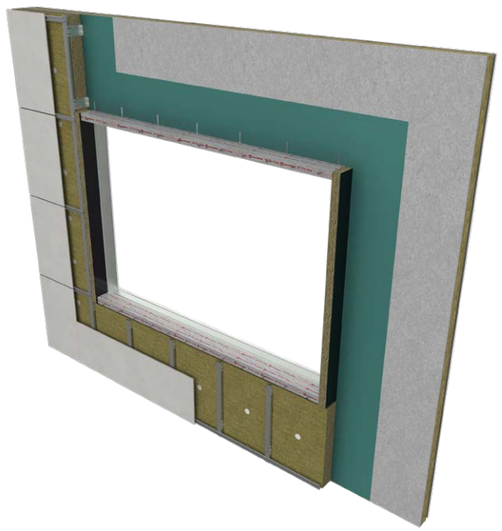
5. Do not tape over the face of the intumescent as this could prevent free expansion.

6. Do not tape the back edge of OSCB as this could interfere with the interface between the barrier and the substrate.

Other details

Interface with SP FireStop

- Vertical runs of SP FireStop should be uninterrupted, with OSCB tightly abutting.



- Around window openings, vertical runs of SP FireStop EN should be installed on both sides, oversailing above and below the opening. SP FireStop OSCB should then be installed horizontally top and bottom, tightly abutting SP FireStop EN.

- In situations where the minimum fire ratings required from the vertical and horizontal barriers are not the same, it is recommended that the higher rating takes precedence and is applied to both.
- For example, if the vertical barrier requires at least 60 minutes and the horizontal barrier at least 120 minutes, we recommend that the specification for the vertical barrier is increased to 120 minutes.
- Vertical runs of SP FireStop EN should be uninterrupted, with OSCB tightly abutting.

Corner details

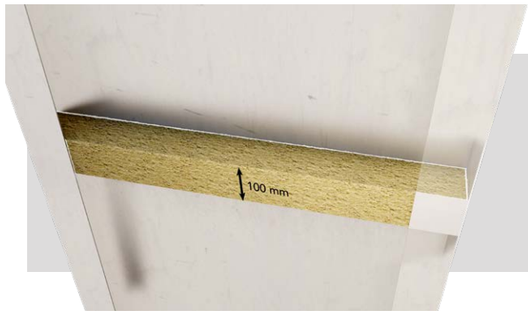
- **External**:
  One run of OSCB oversails the other and is tightly butted against the cladding. The oversailing barrier should have a minimum bearing on the substrate of 200mm or 40% of the section length (whichever is greater), and should be supported by a minimum of two brackets.

- **Internal**:
  Internal corner joints should be mitred.

Cassette panels

In the first instance, the cladding manufacturer should be approached for specific guidance on how their product can be used in a way that complies with Part B of the Building Regulations with respect to cavity barriers.

Generic guidance is provided below; however please note that this approach should be taken as a starting point for further evaluation by a suitably qualified person, and will require careful consideration of the sequencing of works.



1. Cut a strip of ROCKWOOL SP FireStop Plus, 100mm in height, and compression-fit into the back of the cassette panel. The strip should be positioned appropriately so that it will be in line and centered with OSCB once the panel is installed.

2. Seal around the edges with ROCKWOOL Acoustic Intumescent Sealant.

Penetrations

T-rails

Ideally, vertical rails should not run continuously through a cavity barrier and should instead be stopped either side.

In situations where this is not possible, the guidance below will apply.

Please note that running a metal rail through OSCB 44 will limit the product's performance to a maximum of 60 minutes integrity-only, owing to conductive heat transfer through the metal rails; however in our opinion the risk presented by this heat transfer is mitigated by using the product in conjunction with non-combustible ROCKWOOL RainScreen Duo Slab or NyRock RainScreen 032 insulation.

1. Following the guidance under 'Cutting of OSCB', notch the rear of OSCB to accommodate the rail.

2. The intumescent strip should be continuous over the rail and secured either side with pigtail screws.

Other penetrations

Where plastic or metal pipes run vertically within the cladding zone, and must penetrate the horizontal barrier, a localised section of full-fill SP FireStop Plus should be used instead of OSCB.

Please contact ROCKWOOL Technical for further details.

OSCB installation checklist

Fire resistance of substrate

It is important that the structures that are supporting and surrounding the fire barrier are capable of resisting a fire for a period no less than the rating required of the fire barrier itself. For example, a fire barrier fixed to a combustible substrate will be limited in a fire situation if the substrate provides a medium for fire spread that bypasses the barrier.

Position of intumescent strip

OSCB should be installed so that the intumescent strip faces the outer cladding.

Intact polythene sleeve

The polythene sleeve allows easy on-site identification of the product type and fire rating, and also provides a degree of weather protection before the cladding is installed.

Bearing against substrate

For OSCB to be effective it must be in full contact along the entirety of its length with the substrate. If OSCB is only in partial contact then the barrier is likely to fail prematurely in a fire situation.

Risk of façade movement

It is important that the components on either side of the barrier cannot separate in a fire situation. If the components do separate in a fire situation, this will create a path around the fire barrier. If there is a risk of separation then the components surrounding the fire barrier should be mechanically linked to ensure that separation cannot occur.

Brackets and fixings correctly installed

Brackets should always be above the line of the barrier, where the heat is less intense in a fire situation, and must be non-combustible and corrosion resistant.

Plastic rawlplugs and resin anchors are not suitable.

There should be a minimum of two brackets per length of barrier; using more is acceptable.

Where pigtail screws are required there should be three per metre at maximum centres of 333mm, and for cut sections, a minimum of two per length.

Adjacent sections of OSCB tightly abutting

To maintain an effective seal the barriers must tightly abut one another. Ensure that a bracket or 1mm x 25mm metal strip is unable to slide between adjacent sections.

Intumescent free to expand to the façade

The intumescent component of OSCB is designed to expand directly away from the barrier, and whilst it will intumesce into tight angles (i.e. 90°), it cannot flow around corners. Check that the vertical cladding rails won't prevent the barrier expanding.

There can also be an issue with cassette panels where small lips will prevent the barrier from fully closing the void.

Correct airspaces

The distance between the barrier and the inside line of the cladding should not exceed 25mm (OSCB 25) or 44mm (OSCB 44).

Use of foil tape

Foil tape is not required to seal OSCB interfaces, and should not be used to cover gaps or voids. Tape should not run over the face of the barrier as this can prevent the intumescent from expanding.

Breather membranes

Breather membranes should not be dressed over the front of OSCB as this can prevent the intumescent expanding in a fire situation. The breather membrane should be adhered to the top and bottom of the barrier or dressed around the back of the barrier.

Use of mastic

Mastic should not be present over the front face of OSCB as this can prevent the intumescent strip from expanding.

BUILDING SAFETY AND PRODUCT USE

LEGAL NOTICES

General safety requirements – Building Safety Act 2022

ROCKWOOL Limited is committed to supporting specifiers, resellers and users of ROCKWOOL products for the full life cycle of the product to comply with the obligations and responsibilities set out in the Building Safety Act 2022. With regard to the general safety requirements of the Act, ROCKWOOL Limited cannot control or foresee every situation where its products might be used. We therefore strongly advise that specifiers, resellers and users contact us where use of ROCKWOOL products is contemplated in applications different from those explicitly described in the latest, relevant ROCKWOOL product datasheets; especially in applications that can be reasonably foreseen as critical to safety.

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ROCKWOOL Limited does not accept responsibility for the consequences of using (including testing or certifying) its products in applications different from those explicitly described in the relevant ROCKWOOL product datasheets. Expert advice should be sought, and ROCKWOOL Limited should be contacted, where such different use is contemplated, or where the extent of any use described by ROCKWOOL Limited is in doubt.

The ROCKWOOL Trademark

ROCKWOOL® - our trademark

The ROCKWOOL trademark was initially registered in Denmark as a logo mark back in 1936. In 1937, it was accompanied with a word mark registration; a registration which is now extended to more than 60 countries around the world.

The ROCKWOOL trademark is one of the most important assets of the ROCKWOOL Group, and is therefore well-protected and defended by ROCKWOOL throughout the world.

If you require permission to use the ROCKWOOL logo for your business, advertising or promotion, you must apply for a Trade Mark Usage Agreement.

To apply, write to:
marketcom@rockwool.com

Trademarks

Registered trademarks of the ROCKWOOL Group include but are not limited to:

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If you require permission to use ROCKWOOL images, you must apply for a Usage Agreement.

To apply, write to:
marketcom@rockwool.com

ROCKWOOL stone wool - safe to install and live alongside

There are no hazardous classifications associated with stone wool insulation manufactured by ROCKWOOL-UK according to EU REACH and UK REACH regulations on health and the environment.

ROCKWOOL safe use instruction sheets and material safety data sheets (where applicable) can be downloaded **here**.

Sustainability

ROCKWOOL products are used to enrich modern living, creating safer, healthier and more climate-resilient communities.

We transform abundant, natural volcanic rock into stone wool insulation products that are used to reduce energy demand, lower fuel bills and help address society's climate change challenges.

ROCKWOOL stone wool insulation is recyclable and can be transformed into new ROCKWOOL products. Please contact us for details of how we can work together to recycle waste ROCKWOOL stone wool material that may be generated during on-site installation.

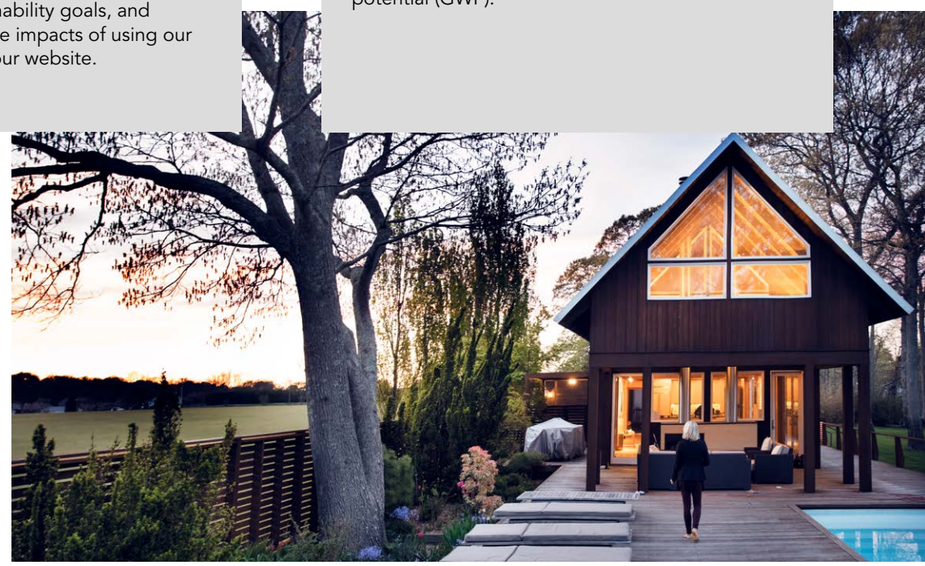
Our annual sustainability reports, which set out progress against our sustainability goals, and further details of the positive impacts of using our products can be found on our website.

Environment

ROCKWOOL takes a fact-based, auditable approach to documenting our progress in maximising our products' positive impact and minimising the effect our operations have on the environment, backed by third-party references and methodologies. Further details can be found online in our annual sustainability report.

Our high-tech production process uses filters, pre-heaters, after-burners and other cleaning and collection systems that help to reduce the effects of our manufacturing operations on the environment.

ROCKWOOL stone wool insulation does not contain (and has never contained) gases that have ozone depletion potential (ODP) or global warming potential (GWP).



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