KOROK®

EXTERNAL WALL INSTALLATION GUIDE

0116

FEBRUARY 2021

KOROK
FIRE AND ACOUSTIC WALL SYSTEMS

KOROK® COMPONENTS SUMMARY

Product Image	Item Description
	KOROK® C-track 60 x 80 x 60mm 1.15B.M.T. (Colour)
	KOROK® C-track 60 x 80 x 60mm 1.15B.M.T. (Galvanised)
	KOROK® panel 78 mm wide 250 mm cover 400 kg/m³ density (Colour)
	KOROK® GEN 2 panel 78 mm wide 250 mm cover 400 kg/m³ density (Galvanised)
	Hilti DBZ 6/4.5 x 32mm
	6.5 x 32 Rawl Mushroom spikes
	Wafer Tek 10g - 16 x 16mm Class 3 Wafer Tek 10g - 16 x 30mm Class 3
	**For EX1 and EX2** Sikaflex-400 Fire-rated Sealant
	**For EX3, EX4 and EX5** Hilti CP606 PROMASEAL®-A
	KOROK® Foam Strip

Product Image	Item Description
	6.5x75mm Blue Tip screws
	Hex Head SDS 14g x 22mm
	Hex Head Type 17 14g x 35mm
	Hex Head SDS 14g x 115mm
	Hilti X-ENP-19 L15 fasteners (strip of 10)
	Hilti DX76 fasteners (as above)
	Hilti DX76 yellow charges
	KOROK® Angle
	KOROK® Base Steel Plate
	KOROK® Exterior 3mm Base Angle
	KOROK® Internal base cover flashing

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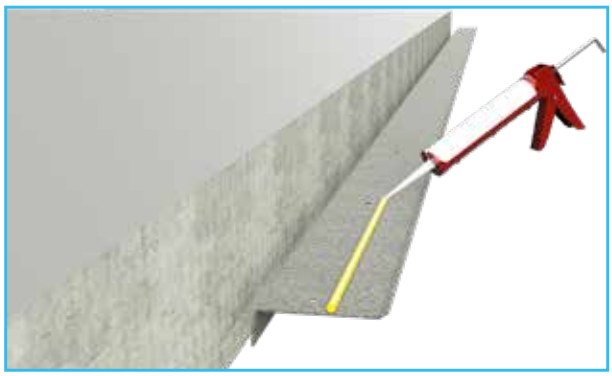
EX1 AND EX2 SYSTEMS

EX1 AND EX2 SYSTEMS INSTALLATION

The KOROK® panels need to be handled with care prior to installation to avoid knocks, bumps and scratches which may lead to maintenance issues at a later date. Panels to be stored on the flat or in their pallets.

When using long panels, care must be taken when lifting the panels into place that they do not deflect so much that the skin is wrinkled.



STEP 1

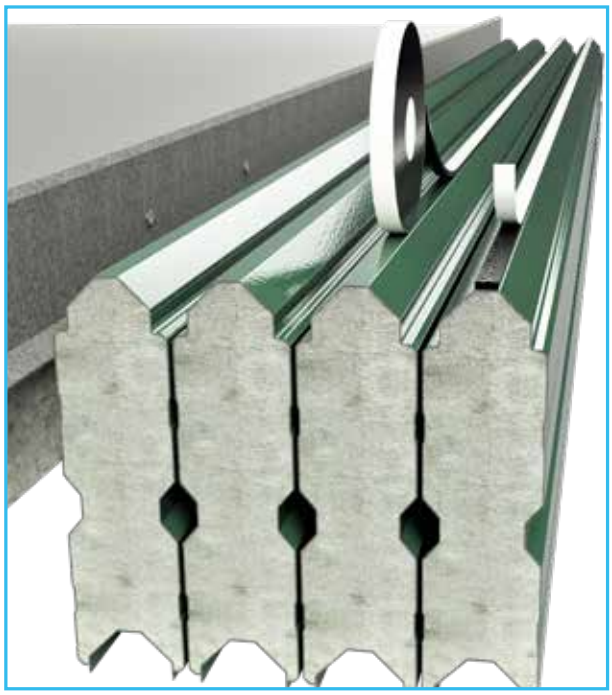
Install KOROK® Exterior 3mm Base Angle.

First apply a bead of Sikaflex-400 fire-rated sealant to the back of the KOROK® Exterior 3mm Base Angle. Place the angle in position against the concrete slab and drill 6mm holes into the slab at the pre-drilled 400mm centres.

STEP 2

Fasten the KOROK® Exterior 3mm Base Angle to the concrete slab with the 6.5x75mm Blue Tip screws.

If the slab is uneven, add a second bead of sealant in the corner of the KOROK® Exterior 3mm Base Angle and the slab.



STEP 3

Prepare the KOROK® panels for installation.

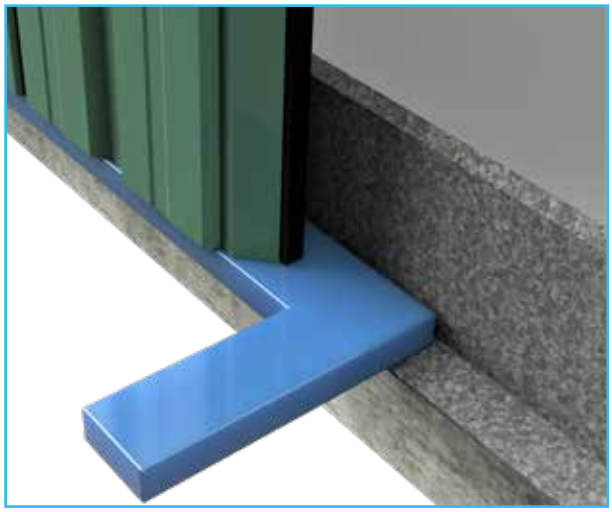
Apply KOROK® foam to the male ends of the panels and remove the backing paper. Do this while the panels are still in the pack for efficiency.

EX1 AND EX2 SYSTEMS INSTALLATION

STEP 4

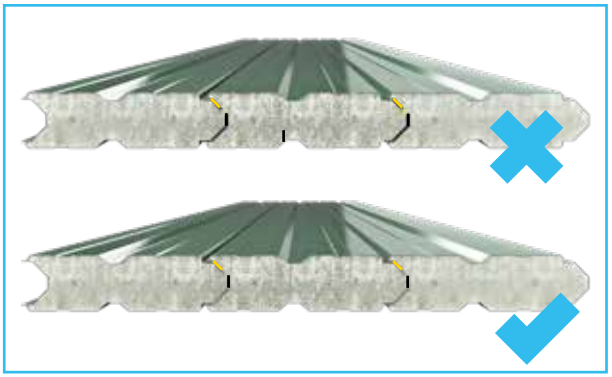
Apply fire-rated sealant to the KOROK® panels.
Remove the panels from the pack and apply a bead of KOROK® sealant to the internal lap of the female end just prior to installing the panel.

When laying the panels horizontally ensure the surface is clean and free from grit as the panel coating may scratch and mark.



STEP 5

Install first KOROK® panel.
Ensure the first panel is plumbed vertical and is screw fixed into place. Lift KOROK® panels vertically into place and set the bottom of the panel on top of a 20 mm KOROK® packer. This supports the panels during installation and maintains the 20 mm gap between the bottom of the panel and the lip of the KOROK® Exterior 3mm Base Angle. Fix each panel off before fitting the next panel and before moving the packer.



STEP 6

Before fastening, ensure the panels are clicked together correctly to maintain performance.

EX1 AND EX2 SYSTEMS INSTALLATION

STEP 7

Fix panels to supports.

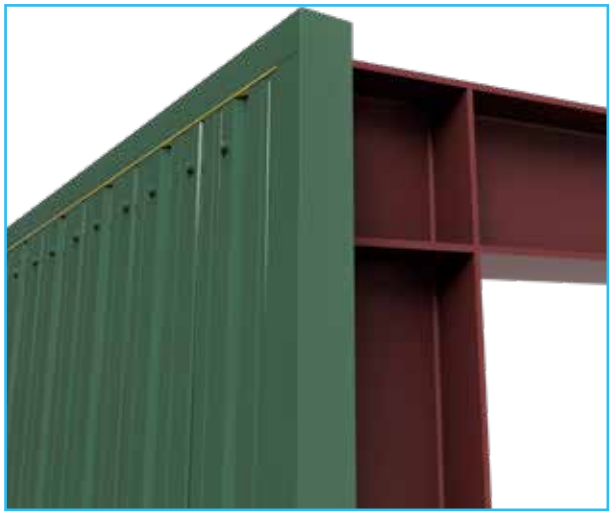
Remove the strippable film where the panels are to be fastened.

With the 20 mm packer in place, fasten the KOROK® panels to the KOROK® Exterior 3mm Base Angle with 14g x 115mm Steeltite tek screws, 2 per panel, and at the top support, 2 per panel.

Once the panel is fastened off, the packer is moved along to support the next panel.

STEP 8

Repeat steps 5-7 until the wall is complete.



STEP 9

Fix KOROK® panels to any midspan supports.

Fix the KOROK® panels to any required midspan supports as per the wall design.

STEP 10

Add KOROK® C-track to top and sides.

Cap off the top and sides of the newly assembled wall with KOROK® C-track.

EX1 AND EX2 SYSTEMS INSTALLATION

STEP 11

Screw off the completed wall.

On the internal side of the wall, screw off the walls with 10x16 wafer screws. Screws are inserted into each panel joint at 1 metre horizontal centres.

STEP 12

Remove any remaining plastic film and then apply a continuous bead of fire rated sealant between the top of the KOROK® Exterior 3mm Base Angle and the KOROK® panels. Also, between the KOROK® C-track and the KOROK® panels as indicated by the yellow line.

STEP 13

Install flashings

Barge, gutter and corner flashings are installed to complete the wall. Generally these are completed by the roofing/ cladding contractor.

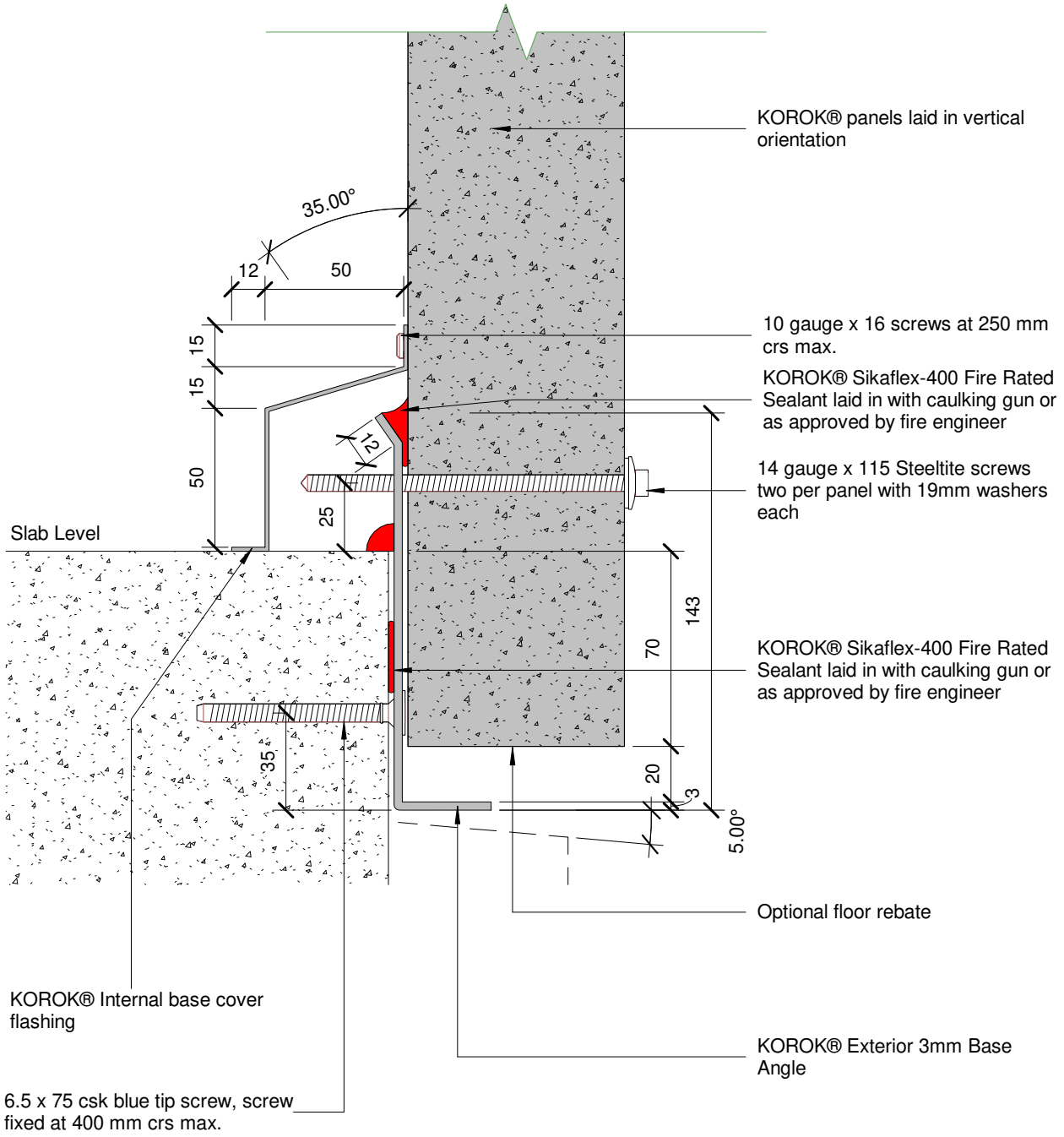
Install the KOROK® internal base cover flashings where applicable.

Final check.

At the completion of the job and at the finish of each day's work, it is essential that the completed area be thoroughly cleaned of all swarf, rivet stems, nails, drillings and screws etc. normally associated with the installation of metal KOROK® panels. Remove any remaining strippable film, check all fixings are correctly installed, all fire and acoustic sealant is applied correctly.

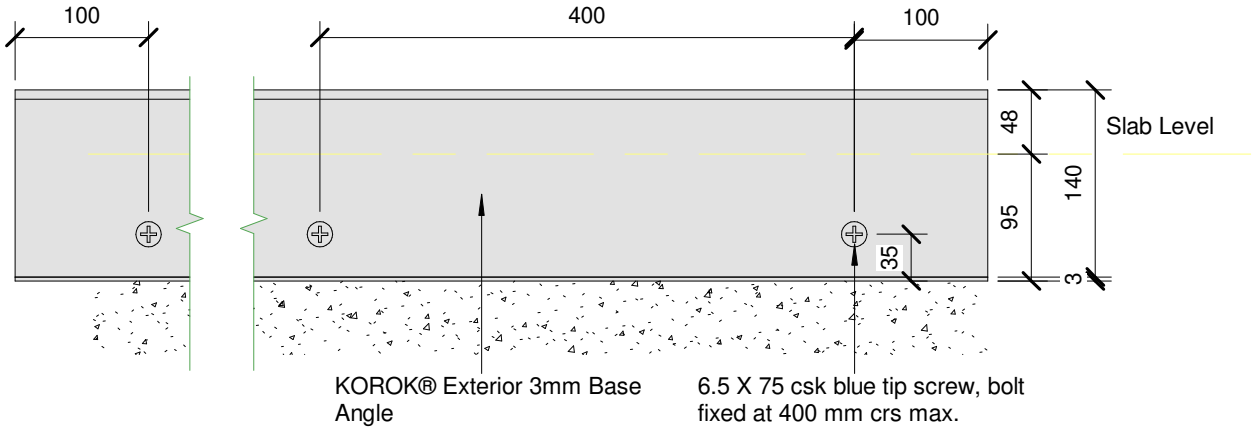
KOROK® EXTERNAL WALL DETAILS

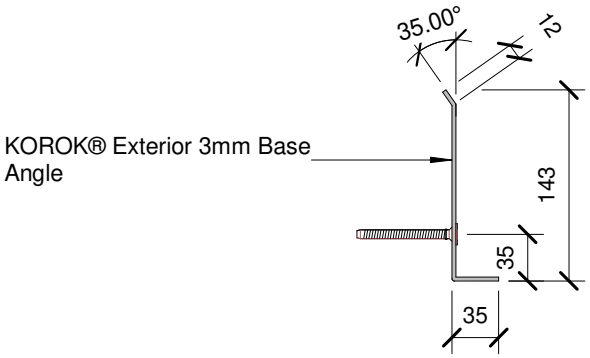
EXTERNAL WALL BOTTOM FIXING SECTION DETAIL WITH BASE ANGLE



KOROK® EXTERNAL WALL DETAILS

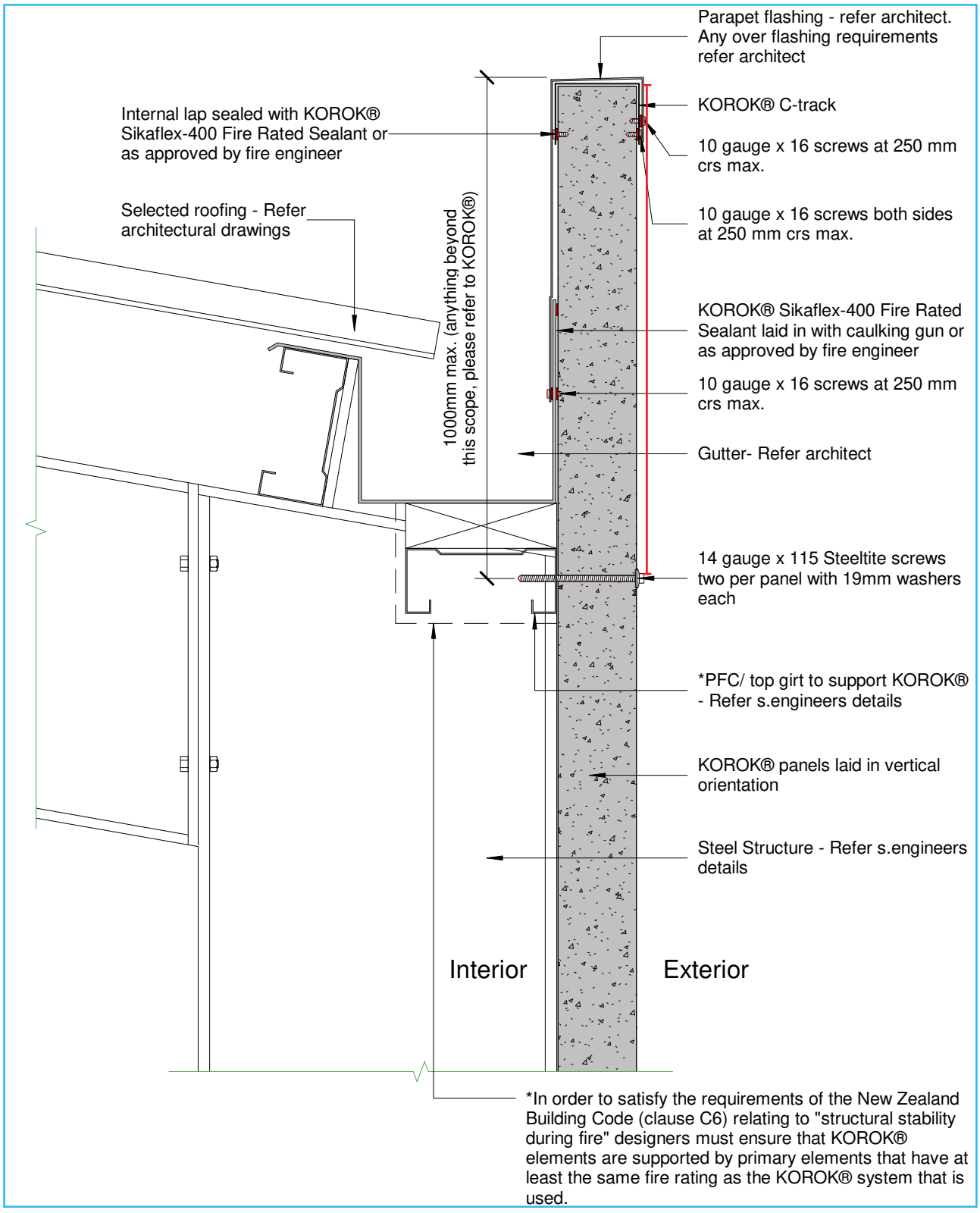
BASE ELEVATION WITH KOROK® EXTERIOR 3MM BASE ANGLE





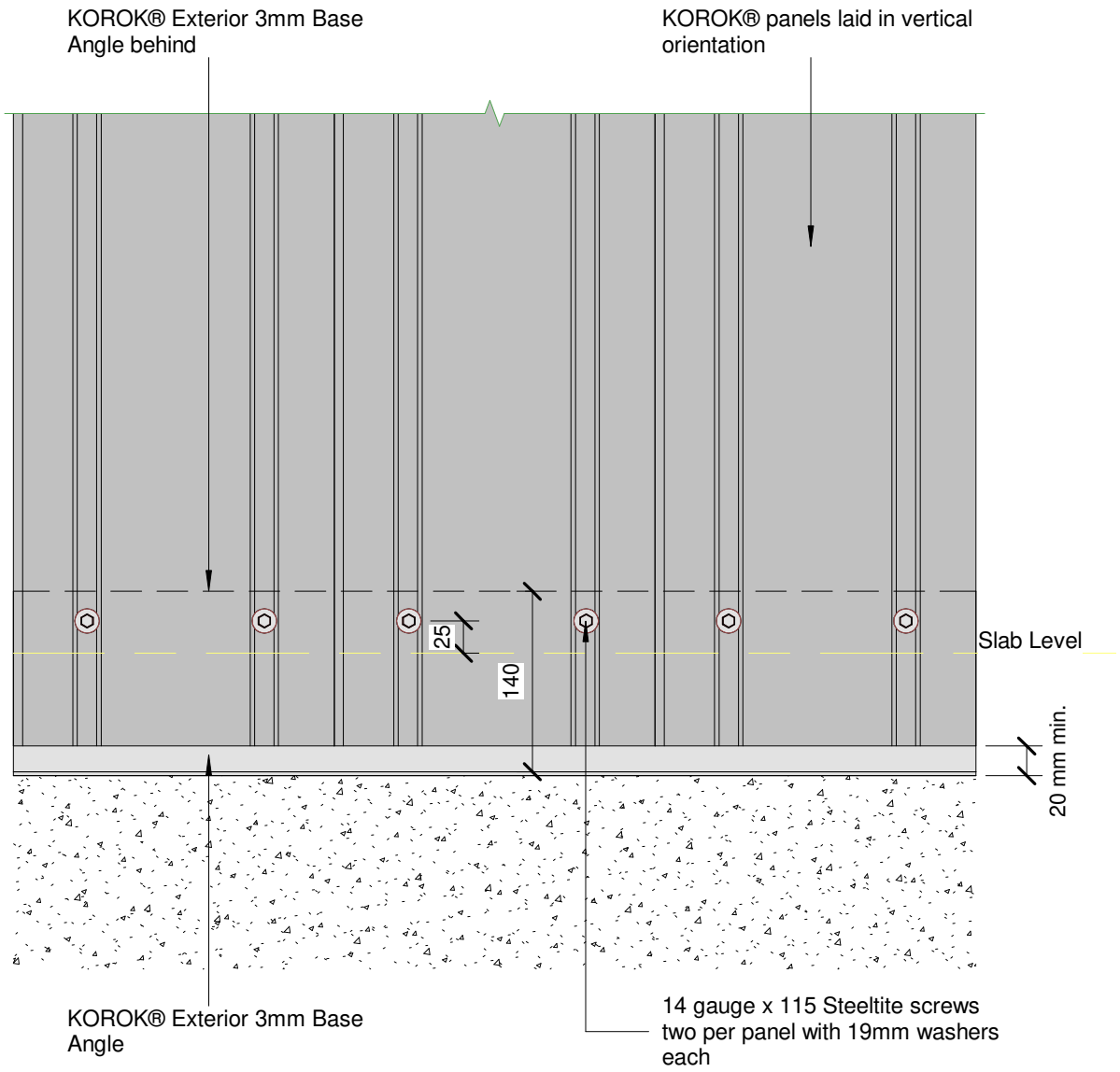
KOROK® EXTERNAL WALL DETAILS

TYPICAL PARAPET DETAIL



KOROK® EXTERNAL WALL DETAILS

EXTERNAL WALL BOTTOM FIXING OUTSIDE ELEVATION



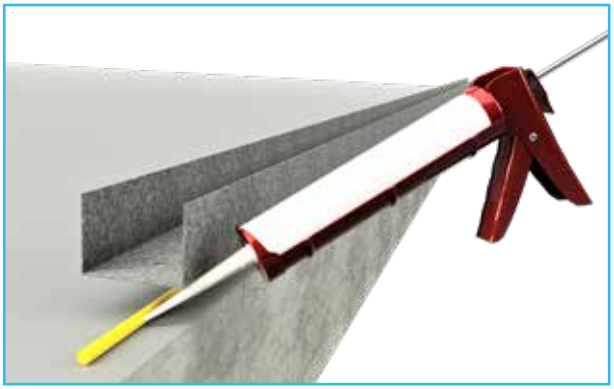
KOROK®

EX3, EX4 AND EX5 SYSTEMS

EX3, EX4 AND EX5 SYSTEMS INSTALLATION

The panels need to be handled with care prior to installation to avoid knocks, bumps and scratches which may lead to maintenance issues at a later date. Panels to be stored on their flat or in their pallets.

When using long panels, care must be taken when lifting the panels into place that they do not deflect so much that the skin is wrinkled.



STEP 1

Ensure C-track is sealed to the structure. A continuous bead of fire-rated sealant is run along the floor before the C-track is laid and fixed.

OR

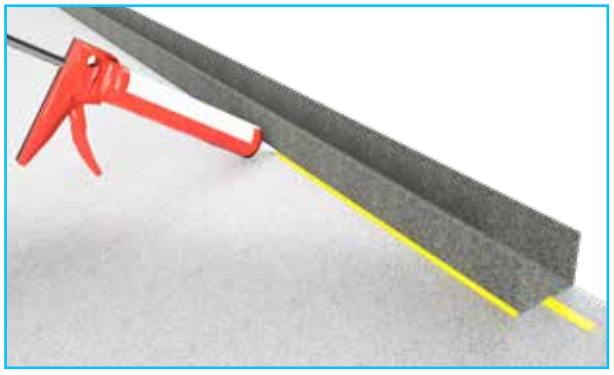
The sealant can be applied directly to the C-track before fixing in place.

STEP 2

Using a masonry drill bit, pre-drill the C-track at 400 mm centres.

STEP 3

Then use the fixings to secure the C-track.



STEP 4

If the surrounding surface is uneven or if you're not sure you have a good seal, add a continuous bead of sealant around the perimeter of the C-track where it contacts the surrounding surface.

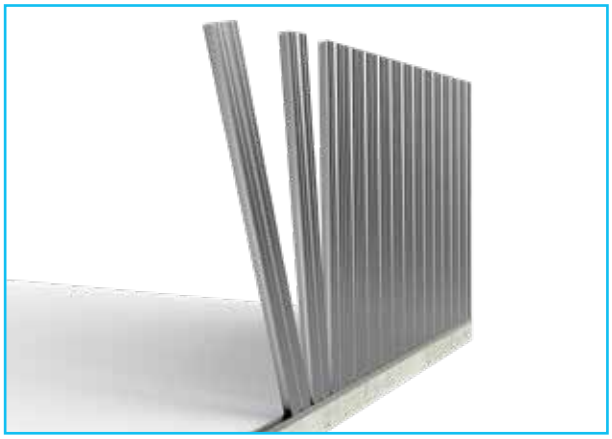
EX3, EX4 AND EX5 SYSTEMS INSTALLATION

STEP 5

Pull back a 300 mm section of the strippable film on the ends of the panels before placing the panels in to the C-track.

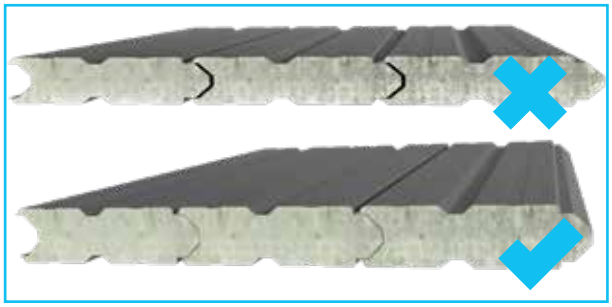
Ensure that the first panel is plumbed vertical after fitting into the C-track. Screw fix the panel into place to the C-track.

Subsequent panels are placed in a tilt and snap action.



STEP 6

Ensure the tongue and groove are fully locked to maintain the fire and acoustic performance. Remove strippable film at the end of each day's work.

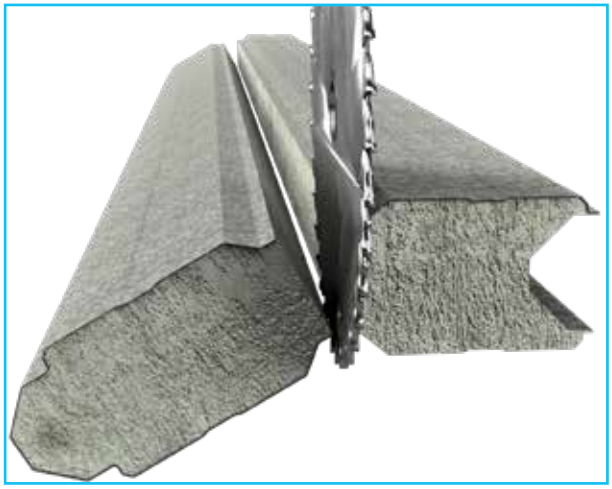


STEP 7

CUTTING PANELS

KOROK® panels can be cut to length and width with the use of a reciprocating saw or a radial saw with dust extraction. Diamond cutting discs are recommended for radial saws.

Where KOROK® panels are trimmed to width, the cut edge of the panel is fitted into the C-track and so is always the last panel abutting the wall or column. The panel is then sealed and fixed in position as usual.



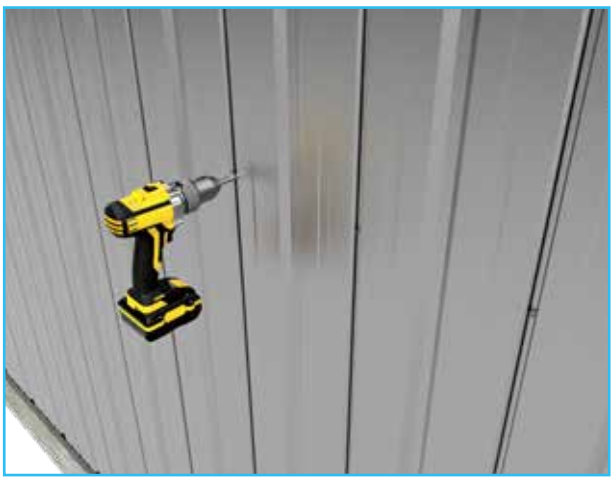
STEP 8

Fix KOROK® panels to any midspan supports.
Fix the KOROK® panels to any required midspan supports as per the wall design.

STEP 9

Add KOROK® C-track to top and sides.
Cap off the top and sides (where appropriate) of the newly assembled wall with KOROK® C-track.

EX3, EX4 AND EX5 SYSTEMS INSTALLATION



STEP 10

Screw off the completed wall.
On either the internal side or the external side of the wall, screw off the walls with 10x16 wafer screws. Screws are inserted into each panel joint at 1 metre horizontal centres.

STEP 11

CLADDING INSTALLATION

The longrun profiled metal cladding system shall be installed as designed by a suitably qualified and capable practitioner, including all closures, flashings, etc.

Install Building Underlay
Install absorbent building underlay as specified.

Install Cavity Battens
Fasten the cavity battens into the KOROK® panel joints at the specified centres.

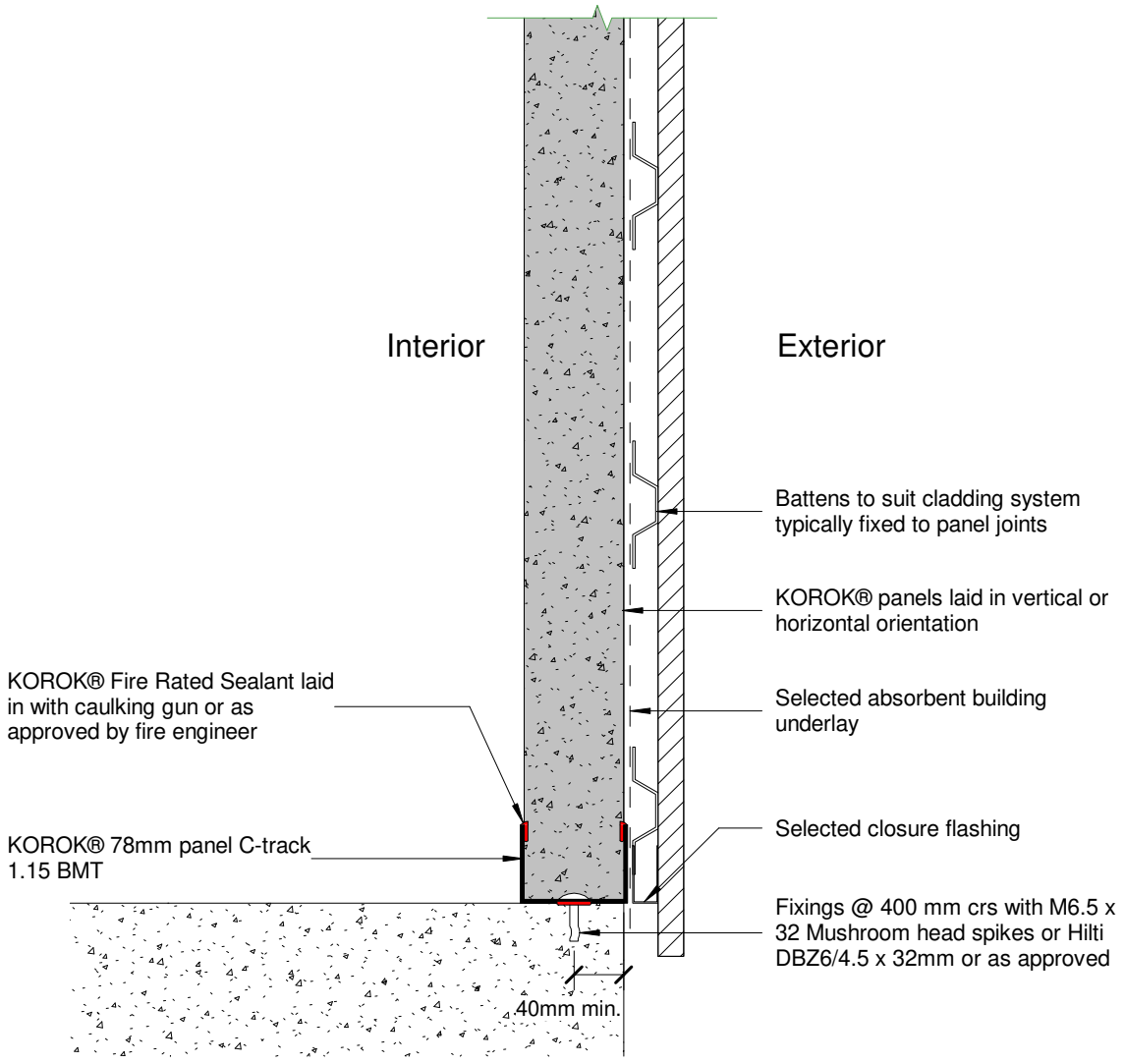
Space the cavity battens at the specified spans.

Install the longrun profiled metal cladding
Fasten the cladding at the specified centres and fastening pattern through the cavity battens into the KOROK® panel.

Final check.
At the completion of the job and at the finish of each day's work, it is essential that the completed area be thoroughly cleaned of all swarf, rivet stems, nails, drillings and screws etc. normally associated with the installation of metal KOROK® panels. Remove any remaining strippable film, check all fixings are correctly installed, all fire and acoustic sealant is applied correctly.

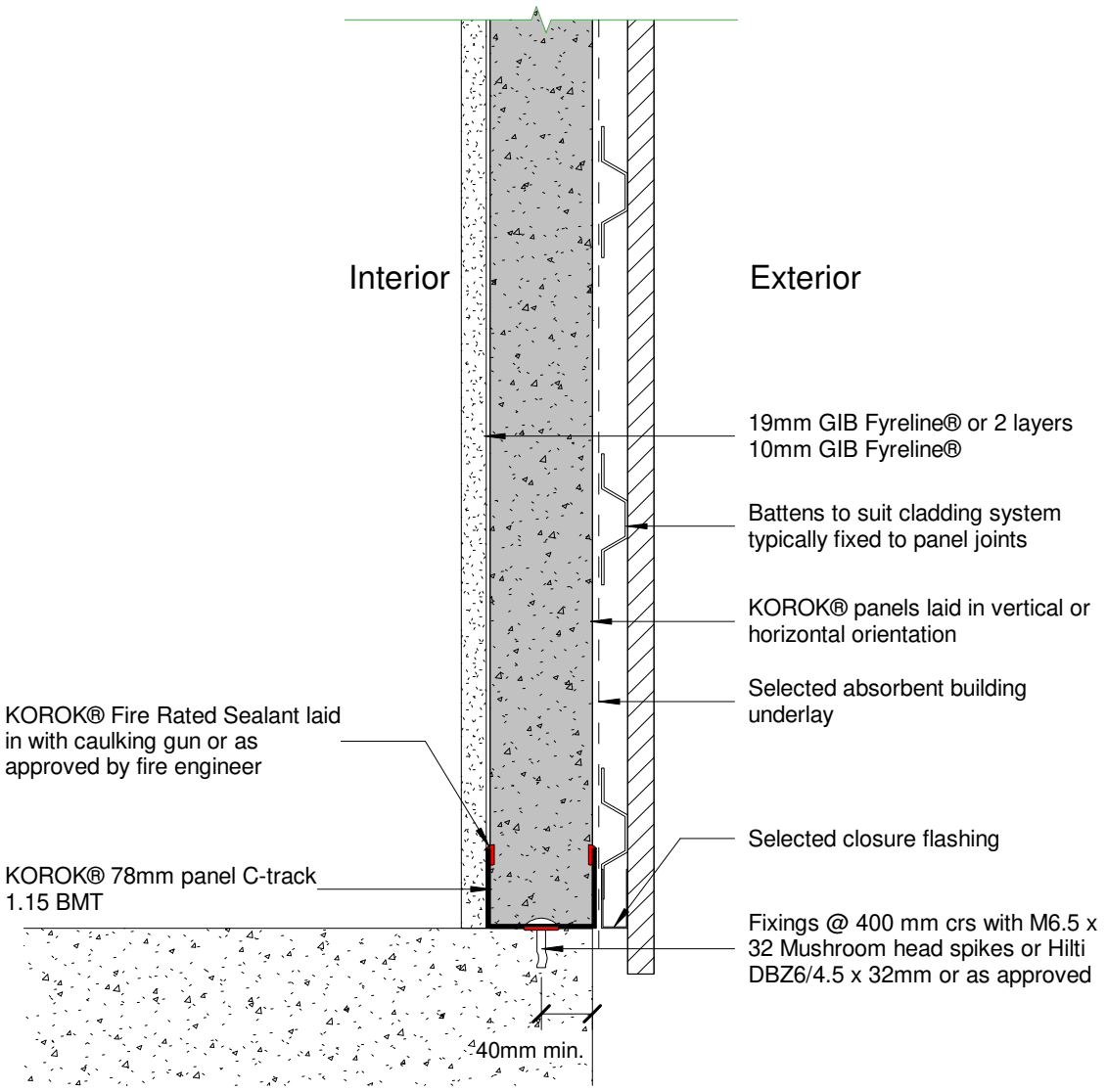
KOROK® EXTERNAL WALL DETAILS

BOTTOM OF SLAB SECTION VIEW EX3



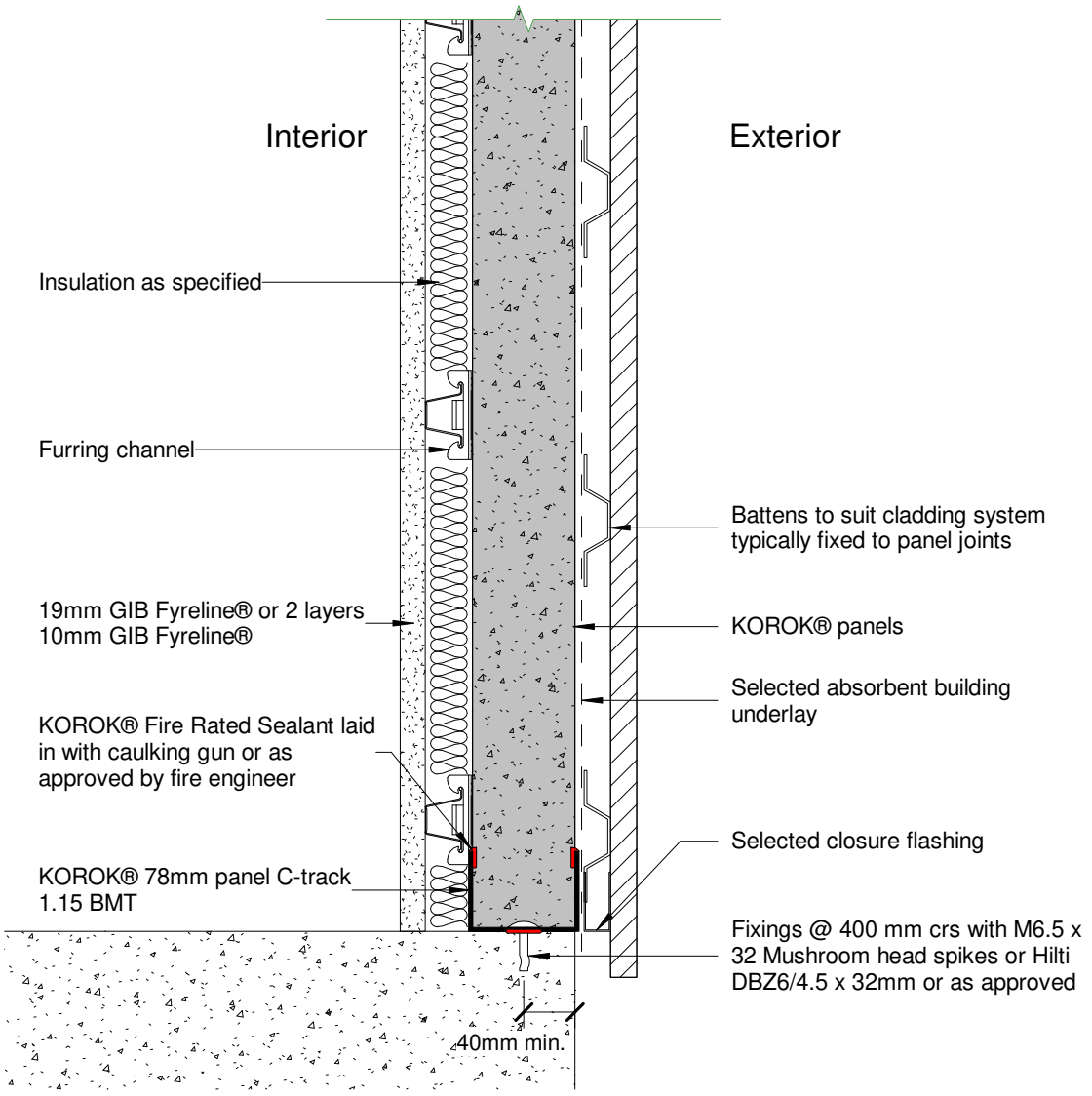
KOROK® EXTERNAL WALL DETAILS

BOTTOM OF SLAB SECTION VIEW EX4



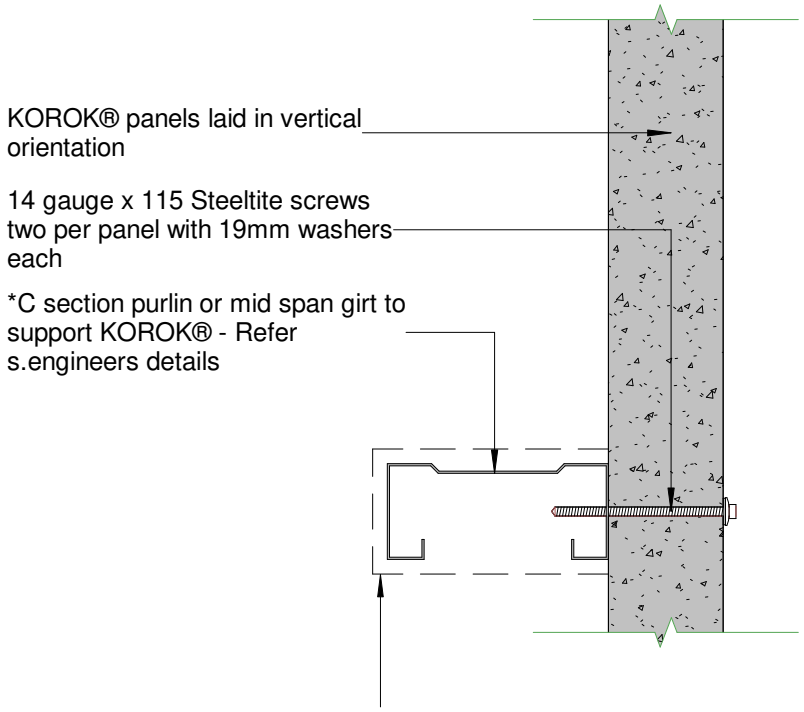
KOROK® EXTERNAL WALL DETAILS

BOTTOM OF SLAB SECTION VIEW EX5



KOROK® EXTERNAL WALL DETAILS

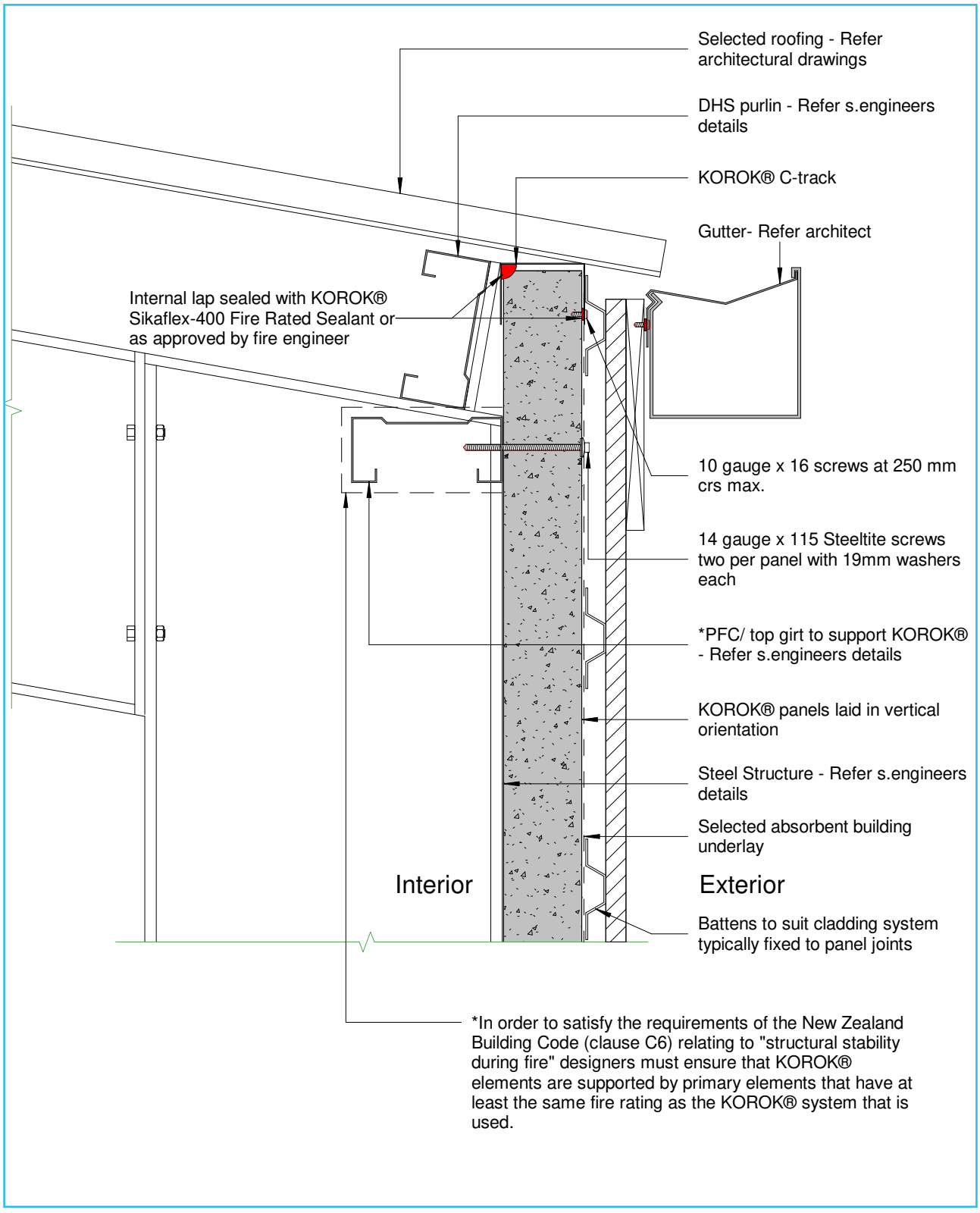
MID SPAN GIRT SECTION



*In order to satisfy the requirements of the New Zealand Building Code (clause C6) relating to "structural stability during fire" designers must ensure that KOROK® elements are supported by primary elements that have at least the same fire rating as the KOROK® system that is used.

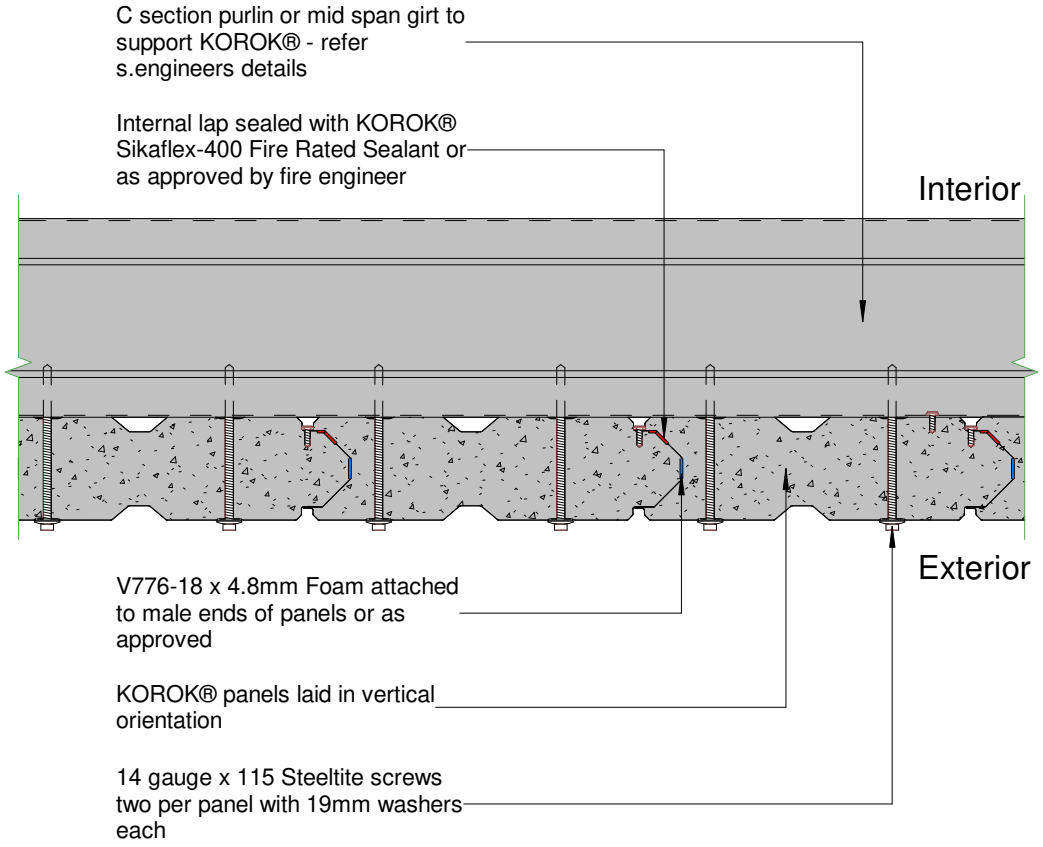
KOROK® EXTERNAL WALL DETAILS

TYPICAL GUTTER FOR EX3, EX4 AND EX5



KOROK® EXTERNAL WALL DETAILS

TYPICAL MID SPAN GIRT PLAN



KOROK® EXTERNAL WALL DETAILS

TYPICAL GUTTER

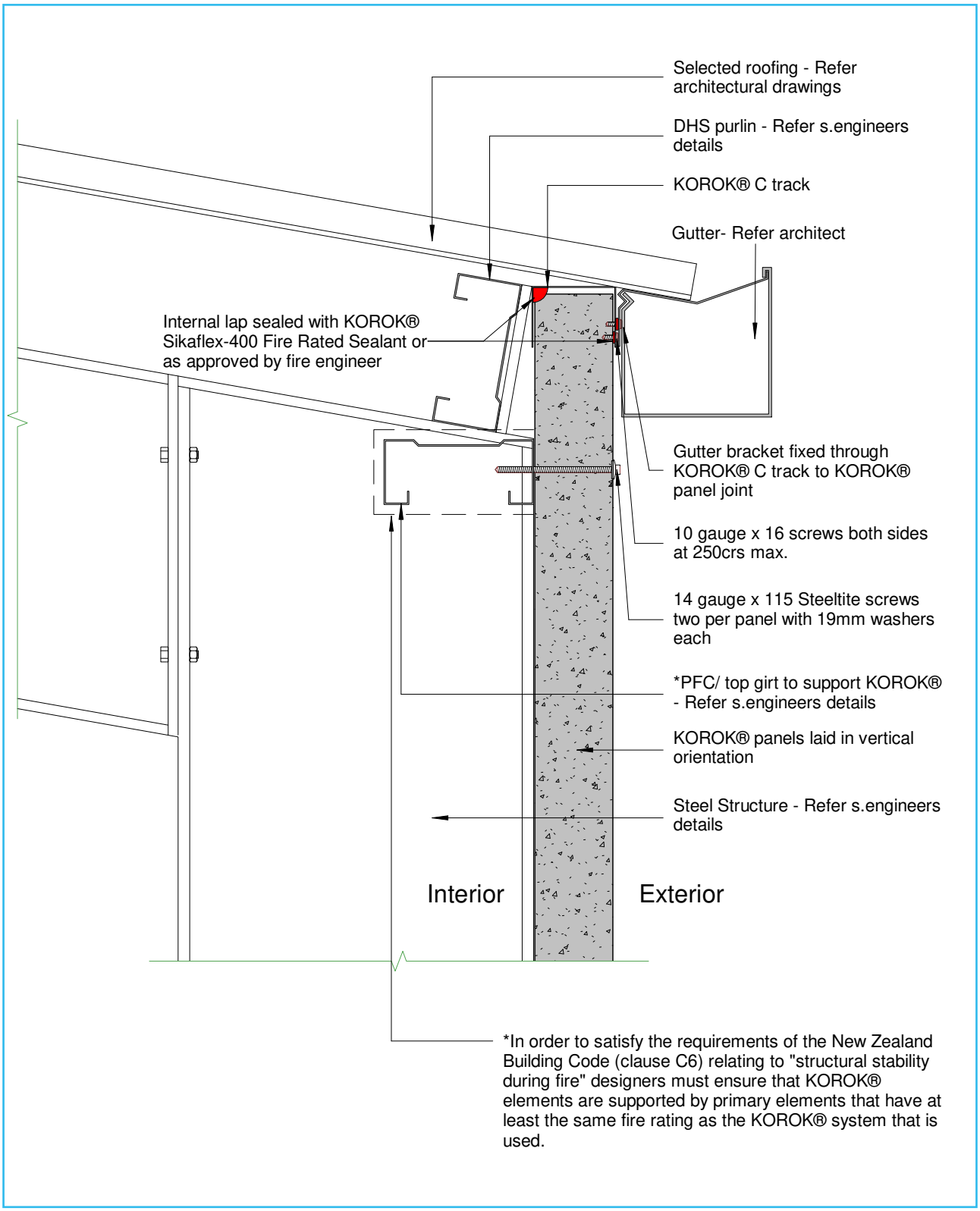


TABLE 7 - KOROK® FASTENERS SPACINGS

Publication	KOROK® Wall System or similar	Panel Thickness (mm)	Panel Orientation	Maximum Wall Span/ Width (m)	Panel to Panel			Panel to Structure			Notes:
					Maximum centres (mm)	One Side Only	Tek Screw	Maximum centres (mm)	Panel Face or Joint	Tek Screw	
External Wall Systems	EX1, EX2	78	Vertical	6.0 m between supporting girts *(see note 1)*	1000	Internal	10-16	2 fixings per panel	Face	14-115	
External Wall Systems	EX3, EX4, EX5	78	Vertical	6.0 m between supporting girts *(see note 1)*	1000	Internal or external	10-16	As per KOROK® Technical and Installation Manual	Face	10-16 or 10-30	

NOTES

1. 78 mm Panel Properties - Span tables are based on ambient conditions. When used as part of a fire-rated system, the maximum unsupported vertical span of the KOROK® EX systems is 6.0 metres. Greater spans are subject to specific engineering design and/or fire engineering assessment.
2. Design Wind Pressures - may require specific engineering design and result in midspan girts.

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