

KOROK®

CEILING AND BULKHEAD SYSTEMS



**September 2026
Version 3**

KOROK 

OVERVIEW

KOROK® 78mm panel can be used in Ceiling, Bulkhead or Lid applications when supported by protected structural steel, concrete/masonry walls or other 78mm KOROK® walls.

Key Advantages

Underside Install:

Install from the underside options - simplifies sequencing, reduces roof-space dependency, ideal for new work, retrofit and staged works

120 Min FRR:

Fire resistance ratings up to 120 minutes

3.0 M Span:

Up to 3.0m typical spans, extendable with additional support

Fast Install:

Fast underside installation options - with single-sided panel to panel joint fixing

Efficient/Reduced Mess:

A more efficient, lower-mess install approach

15 kg/m² Linings:

Additional linings weighing up to 15 kg/m² are acceptable

Simplified Fire Continuity:

KOROK® wall and ceiling combinations help maintain fire continuity without over-complicating designs, eliminating the need for extra linings in the ceiling plenum

Two-way Fire Barrier:

Suitable for fire exposure from above or below

Ideal Applications

KOROK® ceilings and bulkheads are particularly well-suited for the following environments:

Service corridors where ducts and services are present

Riser and duct bulkheads

Top of lift shafts

Fire egress corridors and lobbies

Plant rooms

Inclined ceilings under escalators & stairs

High fire consequence rooms

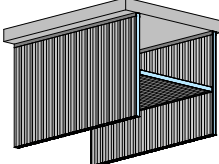
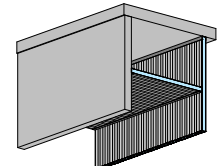
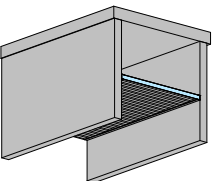
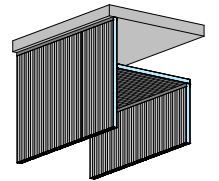
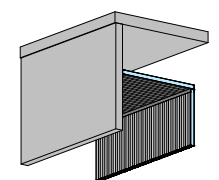
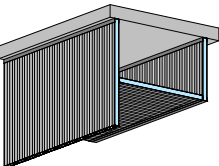
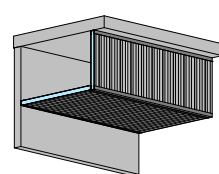
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KOROK® CEILING SYSTEMS

SYSTEMS SUMMARY

These systems are described in detail in the following pages.

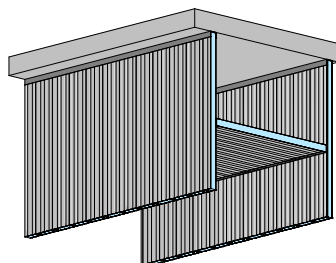
SPEC. CODE		FRR	PANEL SIZE	MAX SPAN	SYSTEM SUMMARY	DIRECTION OF FIRE	PAGE
CS01a		*From -/60/- to -/120/120	78 mm	3.0 m	Ceiling spans between two KOROK® walls	Above or Below	5
CS01b		*From -/60/- to -/120/120	78 mm	3.0 m	Ceiling spans between one KOROK® wall and one rigid concrete/masonry structural element	Above or Below	5
CS01c		*From -/60/- to -/120/120	78 mm	3.0 m	Ceiling spans between rigid concrete/masonry structural elements.	Above or Below	7
CS02a		*From -/60/- to -/120/120	78 mm	2.4 m	Spanning between KOROK® walls to form an internal corridor	Above or Below	8
CS02b		*From -/60/- to -/120/120	78 mm	2.4 m	Spanning between one KOROK® wall and one rigid concrete/masonry structural element to form an internal corridor	Above or Below	8
CS03a		*From -/60/- to -/120/120	78 mm	3.0 m	As part of a bulkhead construction, attached to a KOROK® wall	Above or Below	9
CS03b		*From -/60/- to -/120/120	78 mm	3.0 m	As part of a bulkhead construction, attached to a rigid concrete/masonry structural element	Above or Below	9

*Fire Resistance Ratings will be determined by the edge protection selected.

All KOROK® walls shall be KOROK® Panel 78mm.

CEILING SYSTEM 01

CS01a



CS01b

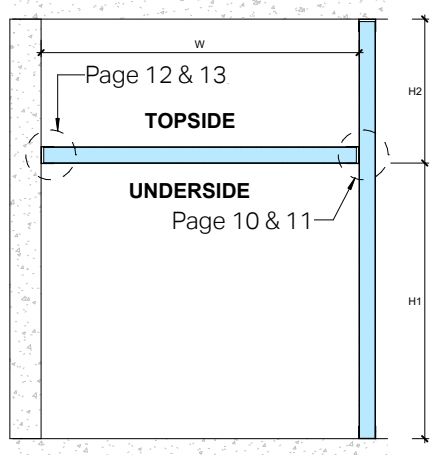
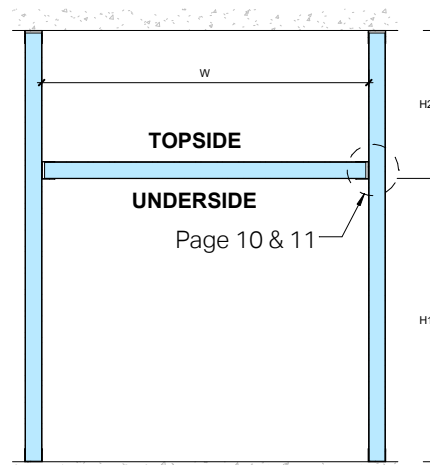
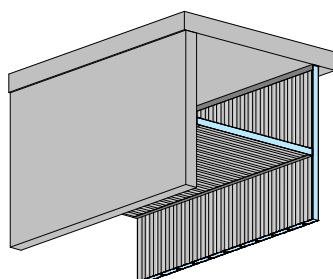


TABLE 1 - ALLOWABLE SPANS FOR CS01A AND CS01B

W SPAN (M)	H1 (M)	H1 + H2 (M)
3.0	3.5	5.0
2.5	4.0	5.0
2.0	4.5	5.0

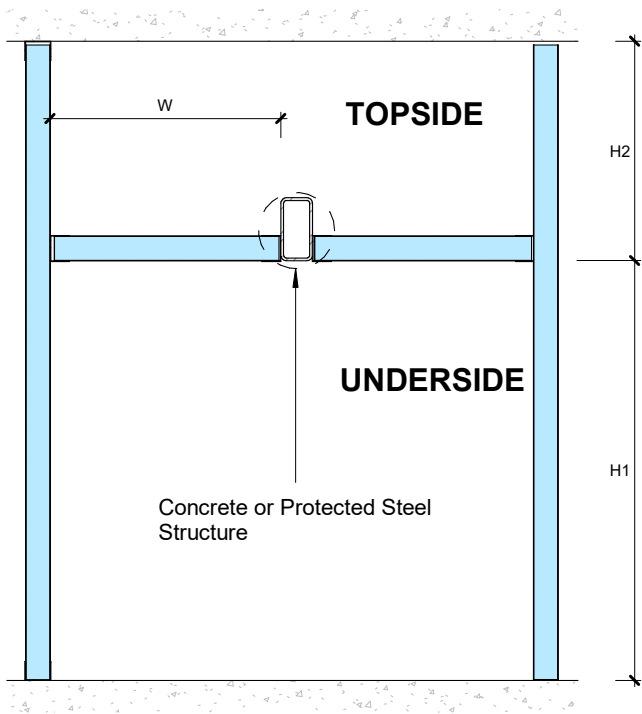
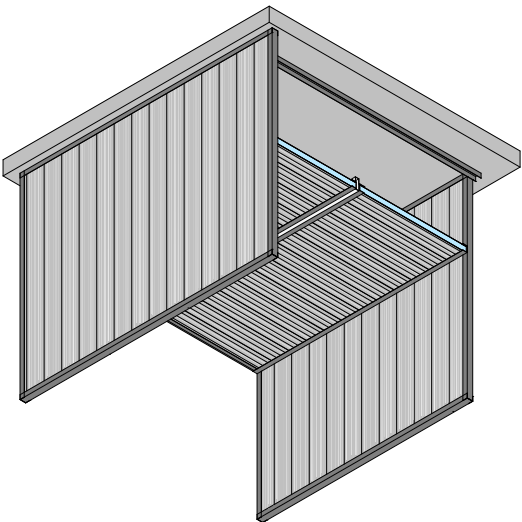
Greater spans require additional supporting structure. Refer to Page 6.

- The ceiling spans either between two vertically oriented KOROK® walls (CS01a), or between a vertically oriented KOROK® wall and a concrete/masonry structural element (CS01b).
- The maximum ceiling span (W) is 3.0 m and the total wall height (H1 + H2) is 5.0 m. The allowable maximum span varies with the allowable height of the KOROK® wall segment from the base to the ceiling (H1) as outlined in Table 1.
- The ceiling to KOROK® wall connection details are shown on Page 10, 11 & 34.
- The ceiling to concrete/masonry structural element connection details are shown on Page 12, 13 & 33.
- The ceiling to protected structural steel connection details are shown on Page 23 & 24.
- Optional intermediate structural steel details are shown on Pages 25, 26 & 27.
- Inclined ceiling to KOROK® wall connection details are shown on Page 28, 29 & 30.
- Optional cladding is shown on Page 31.
- Suitable for fire exposure from above or below.

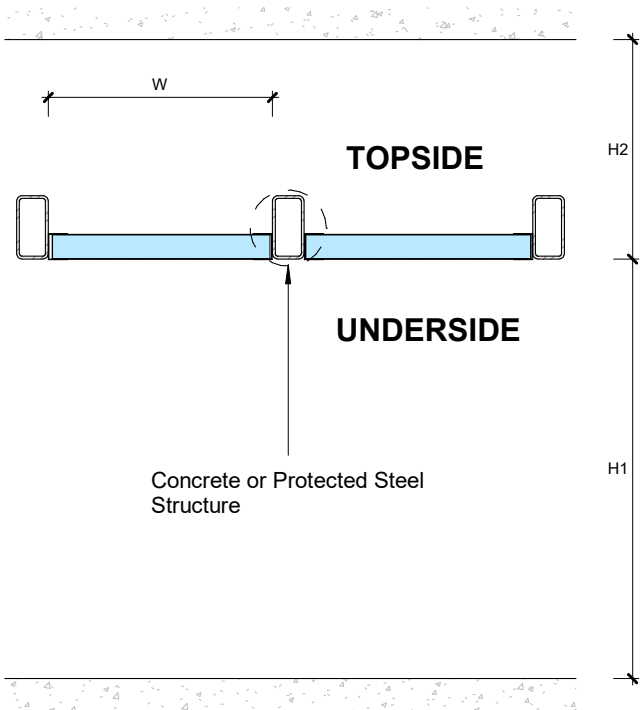
CEILING SYSTEM 01

ADDITIONAL SUPPORTING STRUCTURE

Allowable spans: see Table 1



Allowable spans: see Table 2



CEILING SYSTEM 01

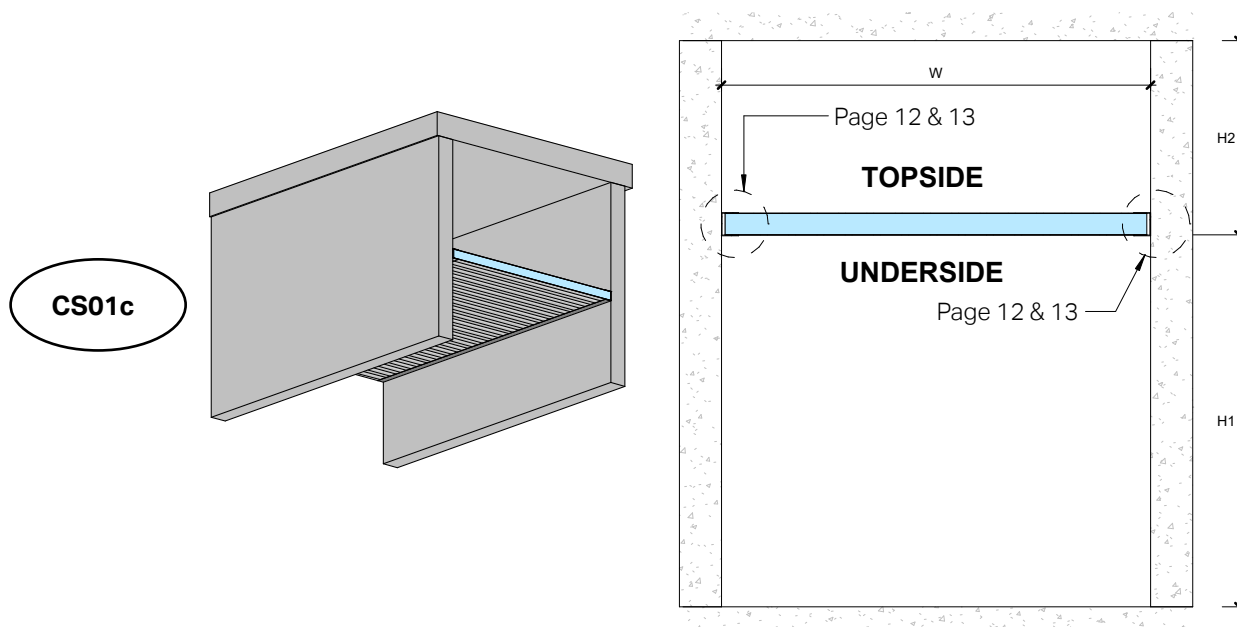


TABLE 2 - ALLOWABLE SPANS FOR CS01C

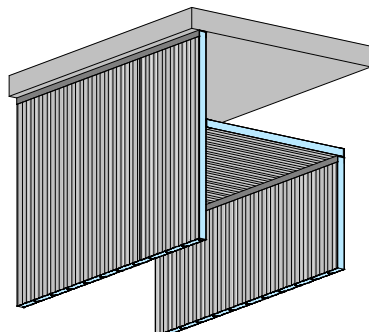
W SPAN (M)	H1 (M)	H1 + H2 (M)
3.0	n/a	n/a

Greater spans require additional supporting structure. Refer to Page 6.

- The ceiling can be supported by concrete/masonry structural elements (CS01c) or protected structural steel elements as shown on Page 6.
- The ceiling to concrete/masonry structural element connection details are shown on Page 12, 13 & 33.
- The ceiling to protected structural steel connection details are shown on Page 23 & 24.
- Optional intermediate structural steel details are shown on Pages 25, 26 & 27.
- Optional cladding is shown on Page 31.
- Suitable for fire exposure from above or below.

CEILING SYSTEM 02

CS02a



CS02b

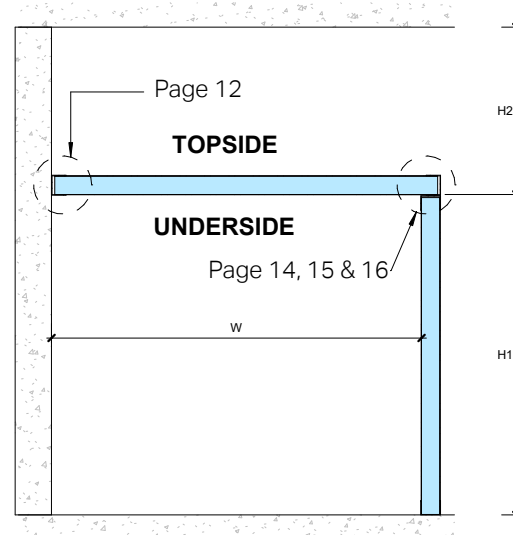
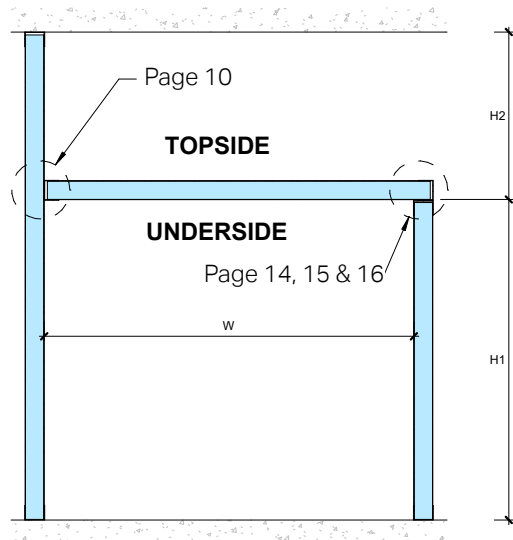
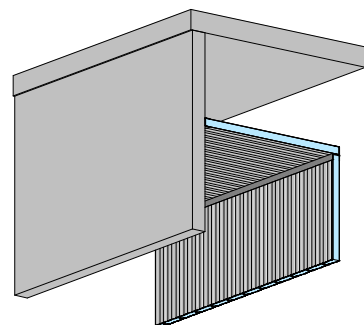


TABLE 3 - ALLOWABLE SPANS FOR CS02A AND CS02B

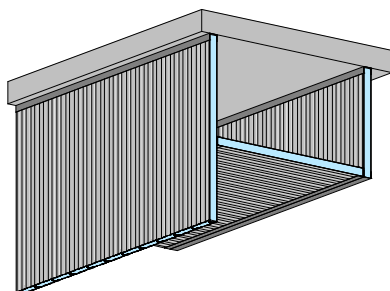
W SPAN (M)	H1 (M)	H1 + H2 (M)
2.4	2.4	5.0
2.0	2.7	5.0

Greater spans require additional supporting structure. Refer to Page 6.

- The ceiling spans either between two vertically oriented KOROK® walls, or between a vertically oriented KOROK® wall and a concrete/masonry wall.
- The maximum total wall height (H1 + H2) is 5.0 m; the allowable maximum span and the allowable height of the KOROK® wall segment from the base to the ceiling (H1) are as outlined in Table 3.
- The ceiling to KOROK® wall connection details are shown on Page 10, 14, 15, 16, 35 & 36.
- The ceiling to concrete/masonry structural element connection details are shown on Page 12, 13 & 33.
- The ceiling to protected structural steel connection details are shown on Page 23 & 24.
- Optional intermediate structural steel details are shown on Pages 25, 26 & 27.
- Suitable for fire exposure from above or below.

CEILING SYSTEM 03

CS03a



CS03b

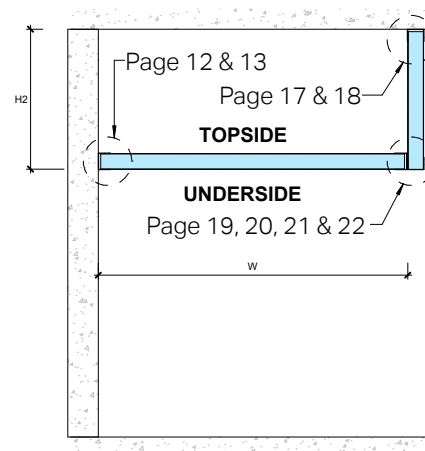
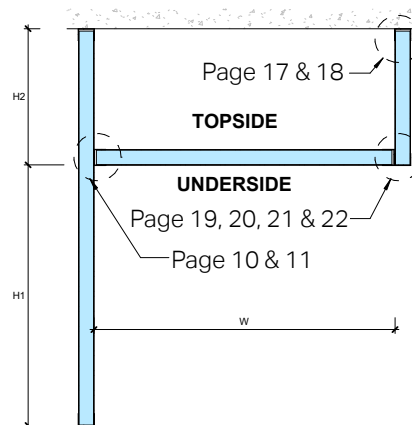
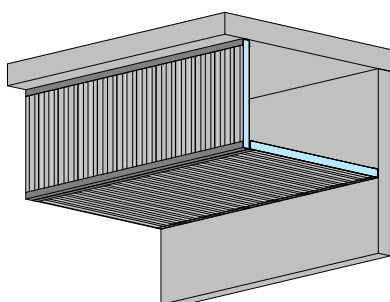


TABLE 4 - ALLOWABLE SPANS FOR CS03A AND CS03B

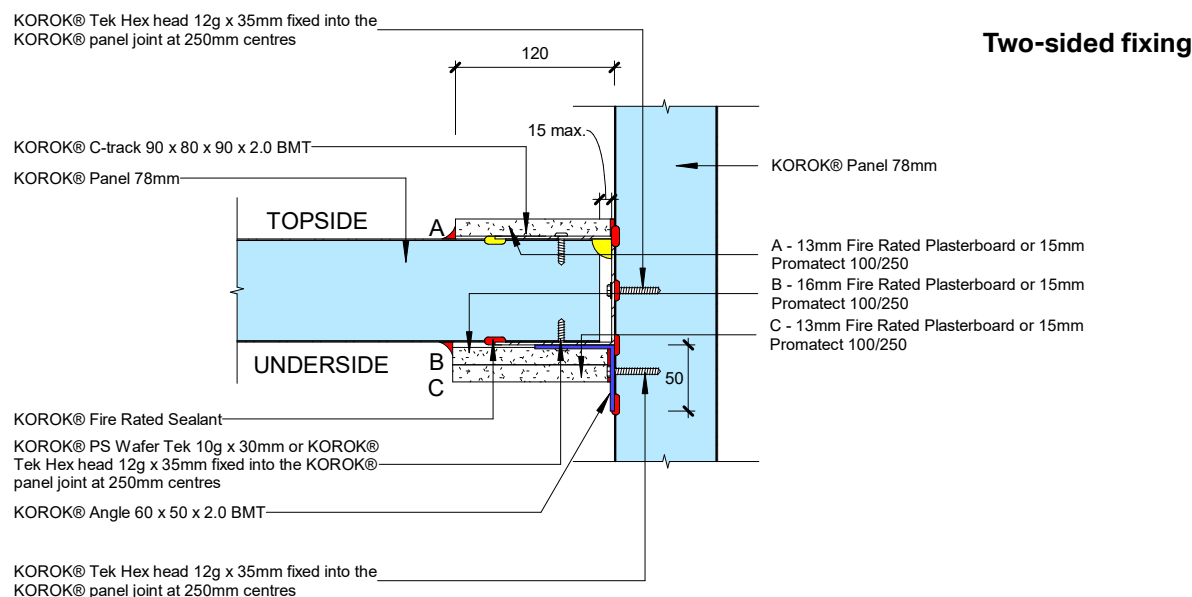
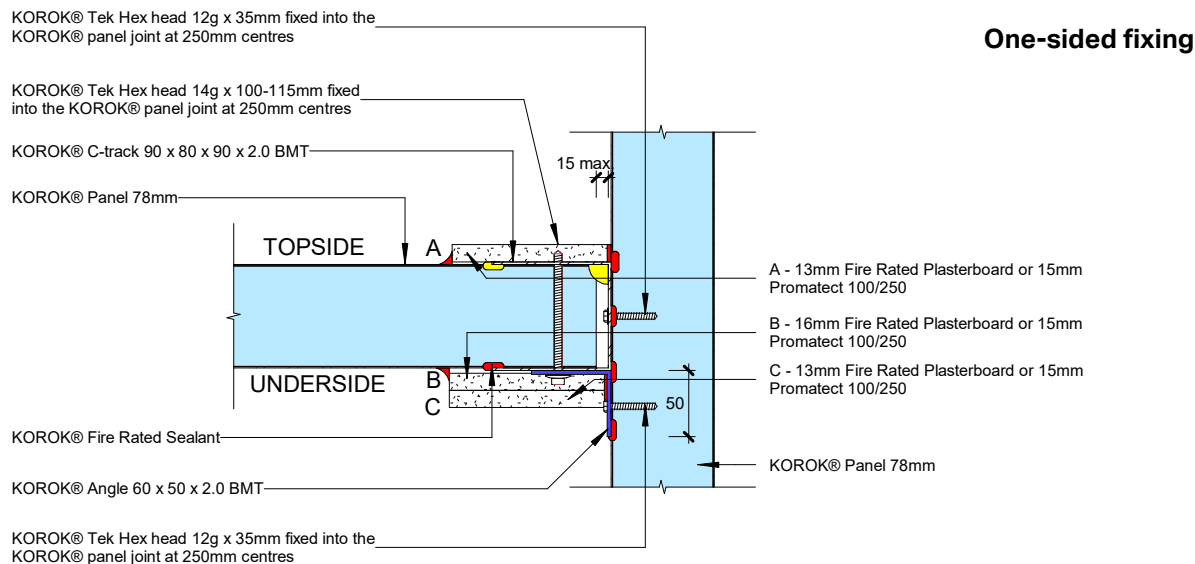
W SPAN (M)	H1 (M)	H2 (M)
3.0	3.0	1.0
2.5	3.0	1.5
2.0	3.0	2.0
2.0	3.5	1.0
1.0	4.0	1.0

Greater spans require additional supporting structure. Refer to Page 6.

- The ceiling spans between a suspended vertically oriented KOROK® wall segment and a vertically oriented KOROK® wall that spans between floors, or between a suspended vertically oriented KOROK® wall segment and a concrete/masonry wall.
- The maximum ceiling span (W) is 3.0 m, and the allowable maximum span varies with the allowable height of the suspended KOROK® wall segment (H2), as outlined in Table 4.
- The ceiling to KOROK® wall connection details are shown on Page 10, 11 & 34.
- The ceiling to concrete/masonry structural element connection details are shown on Page 12, 13 & 33.
- The ceiling to suspended KOROK® wall connection details are shown on Page 19, 20, 21 & 22.
- The suspended KOROK® wall to head structural support connection details are shown on Page 17 & 18.
- Optional intermediate structural steel details are shown on Pages 25, 26 & 27.
- Suitable for fire exposure from above or below.

KOROK® CEILING TO KOROK® WALL

CONNECTION DETAILS FOR SPANS GREATER THAN 1.2 M



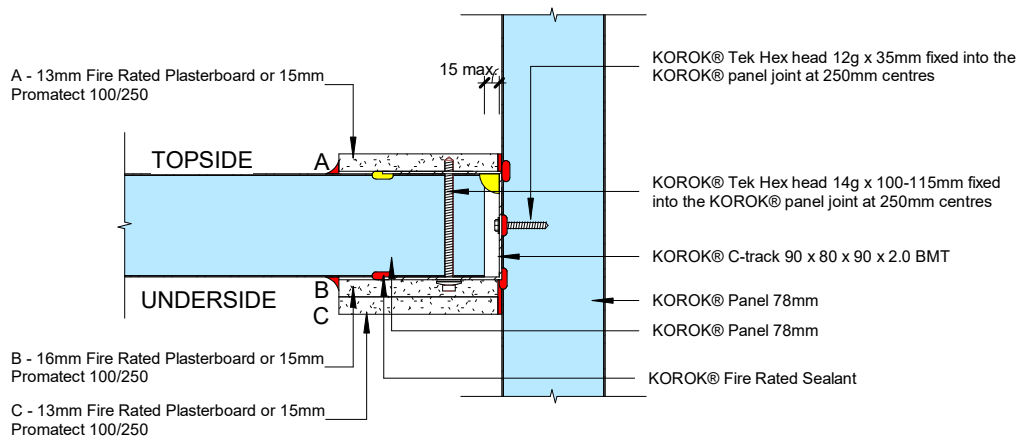
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C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32).
A or B	-/120/30	KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

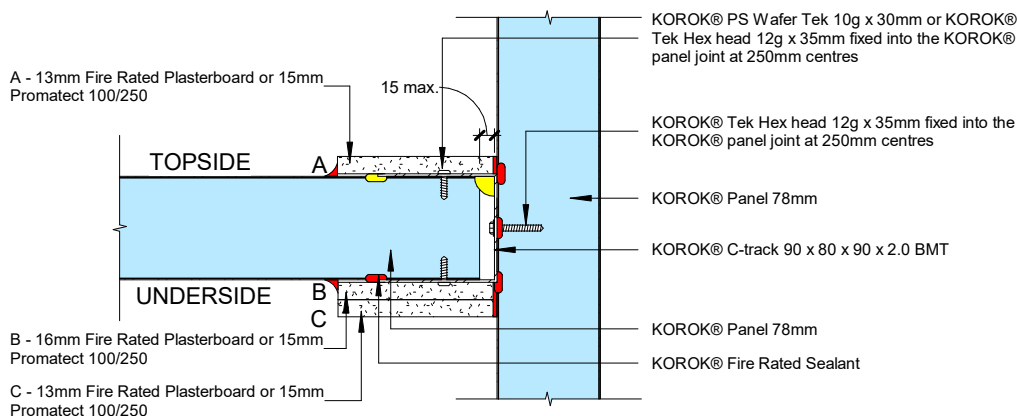
KOROK® CEILING TO KOROK® WALL

CONNECTION DETAILS FOR SPANS LESS THAN 1.2 M

One-sided fixing



Two-sided fixing



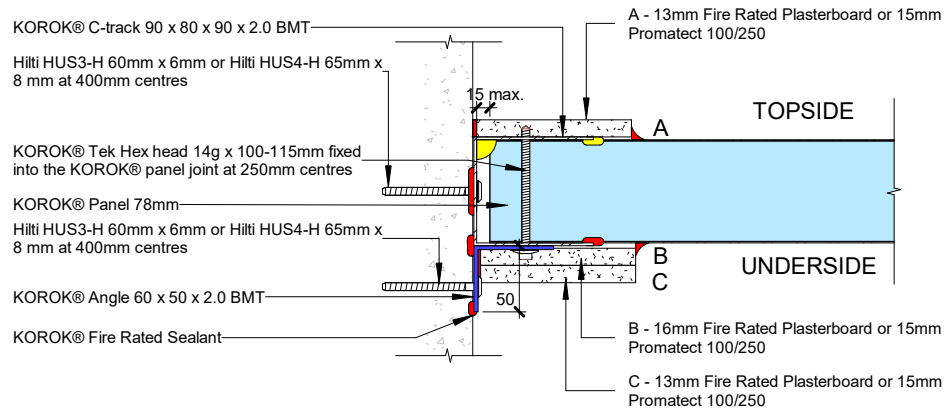
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C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

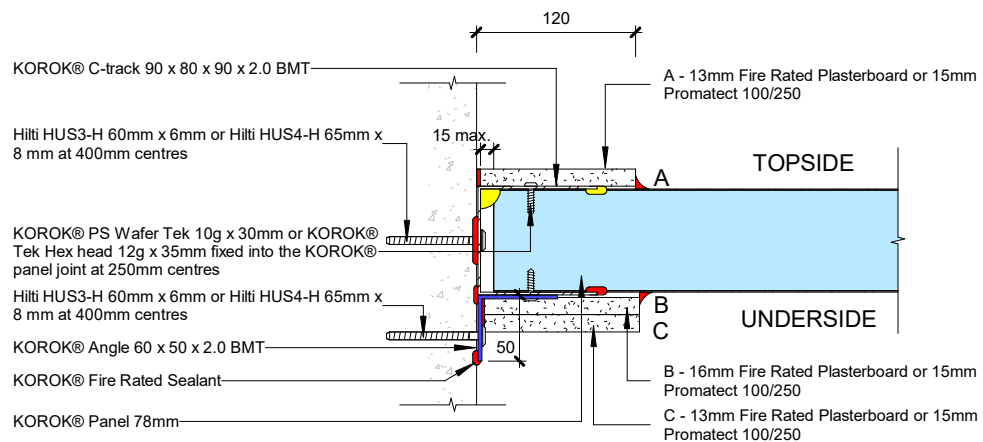
KOROK® CEILING TO CONCRETE/MASONRY WALLS

CONNECTION DETAILS FOR SPANS GREATER THAN 1.2 M

One-sided fixing



Two-sided fixing

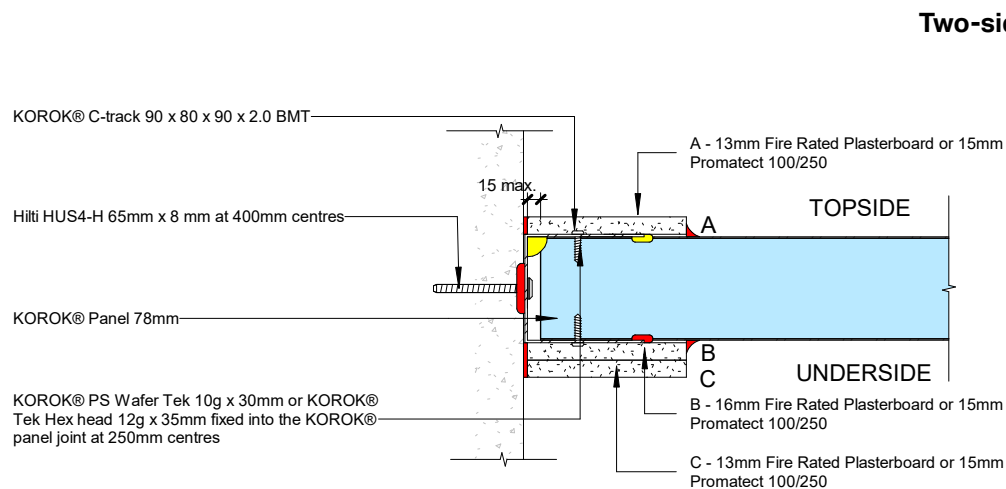
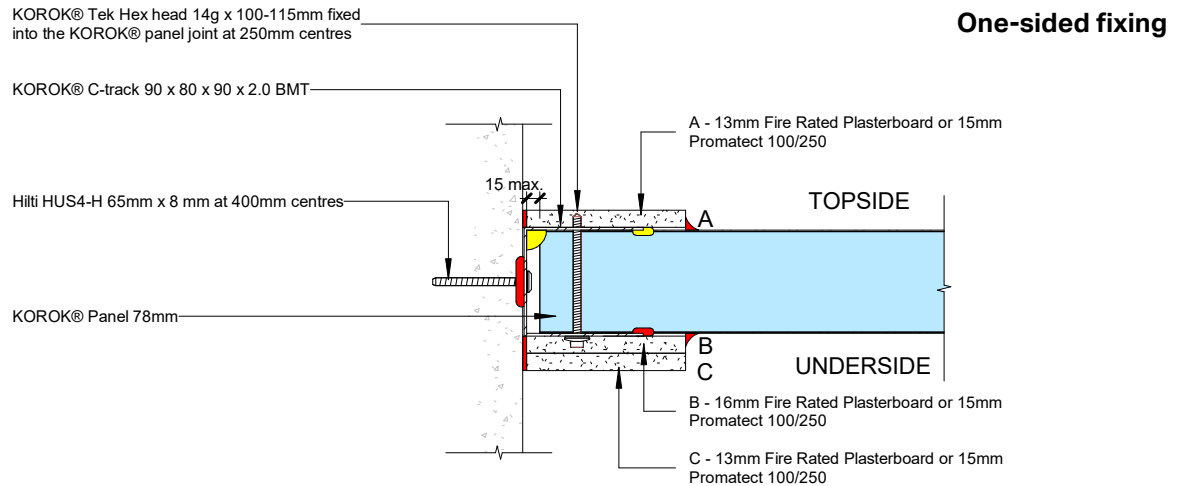


Library ref: KOROK_Ceiling_KCS_002a

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32).
A or B	-/120/30	KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

KOROK® CEILING TO CONCRETE/MASONRY WALLS

CONNECTION DETAILS FOR SPANS LESS THAN 1.2 M



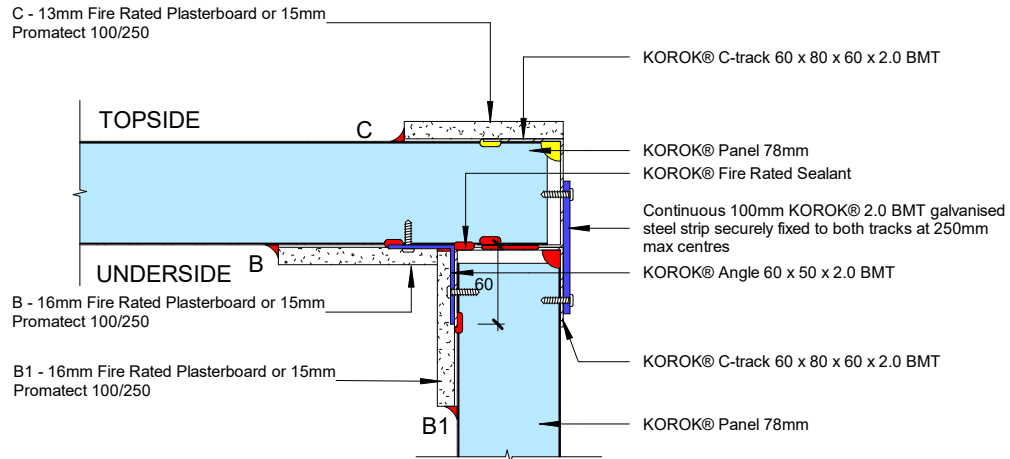
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C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

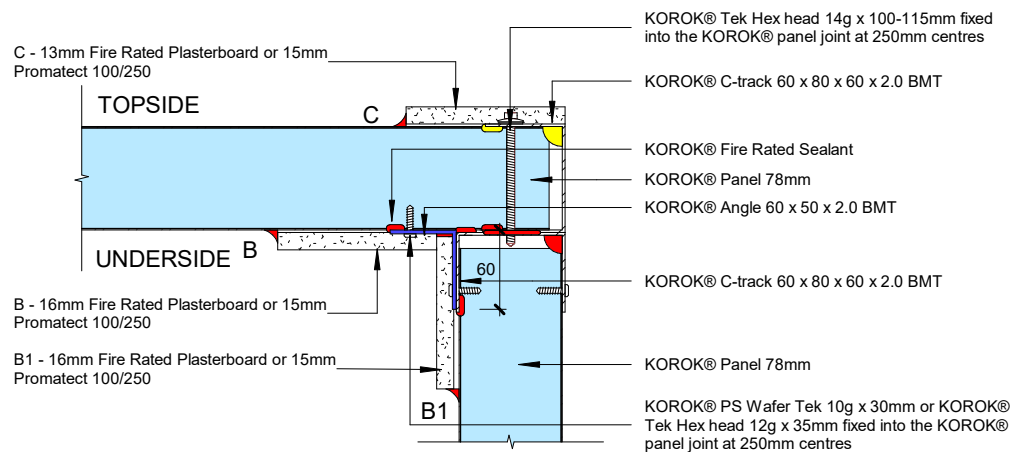
KOROK® CEILING TO KOROK® WALL

JUNCTION DETAILS FOR SPANS UP TO 2.4 M

Joining plate fixed (no top screw)



Top screw fixed



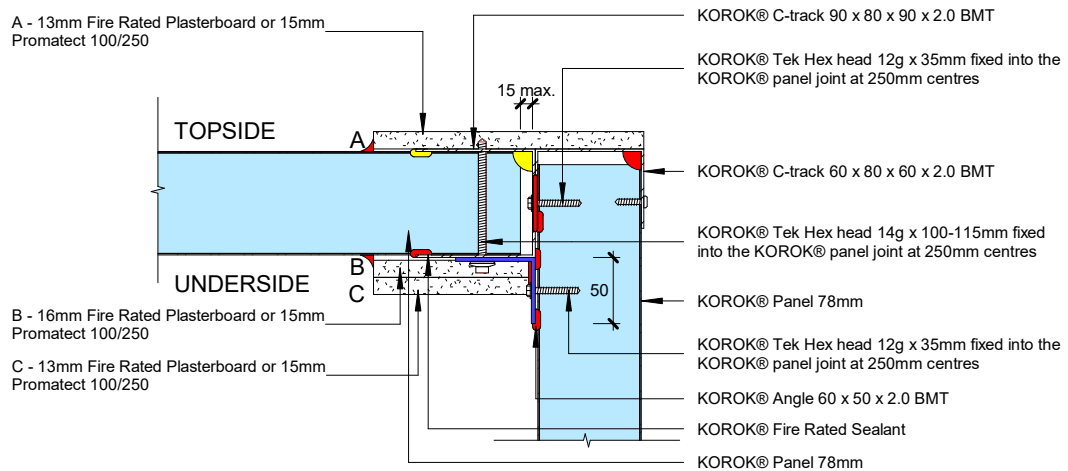
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C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/60	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32).
B+B1 or C+B1	-/120/120	KOROK® Panel spans must not exceed system specification tables.

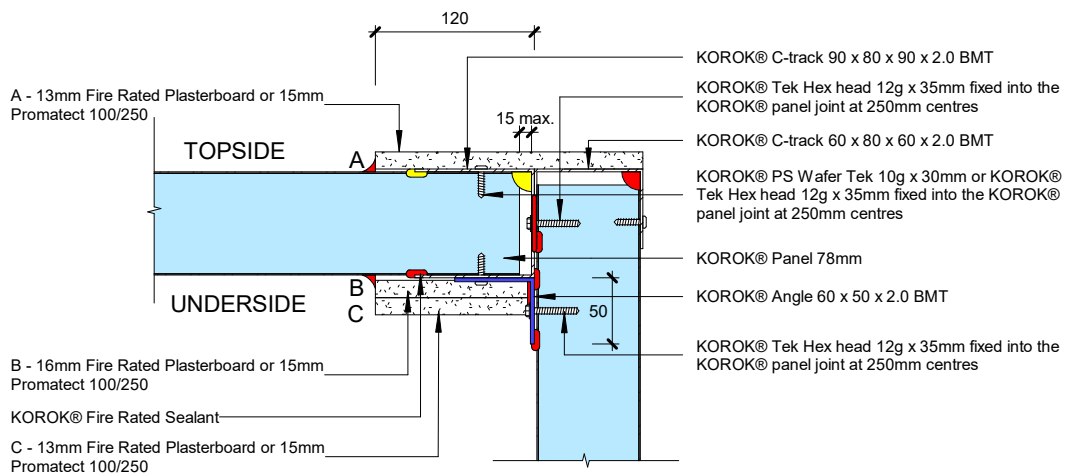
KOROK® CEILING TO KOROK® WALL

JUNCTION DETAILS FOR SPANS UP TO 2.4 M

One-sided fixing



Two-sided fixing

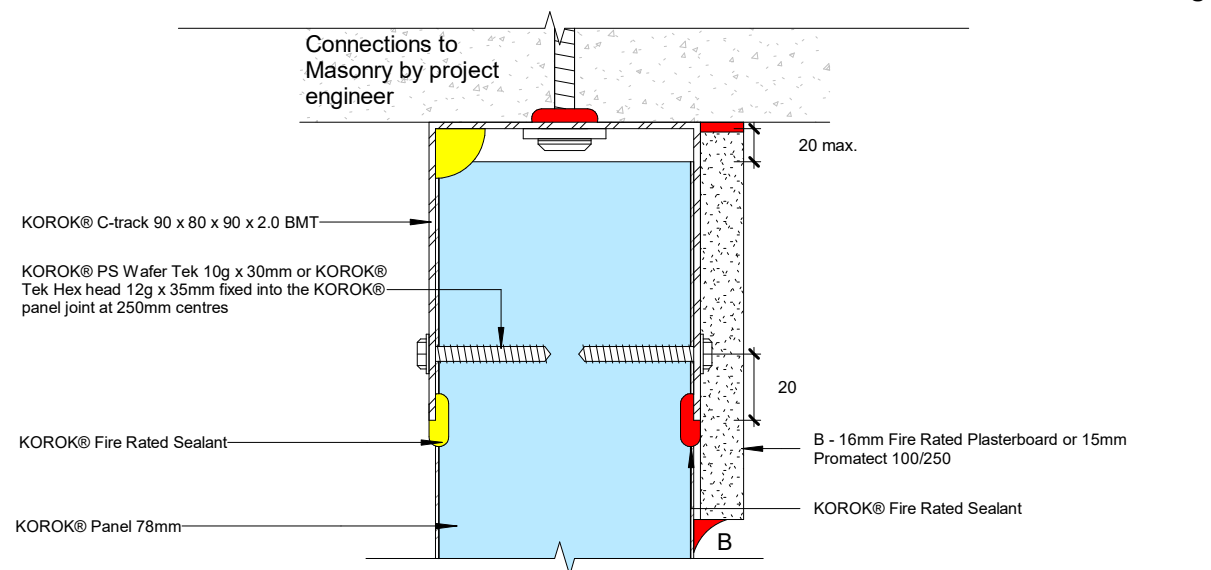
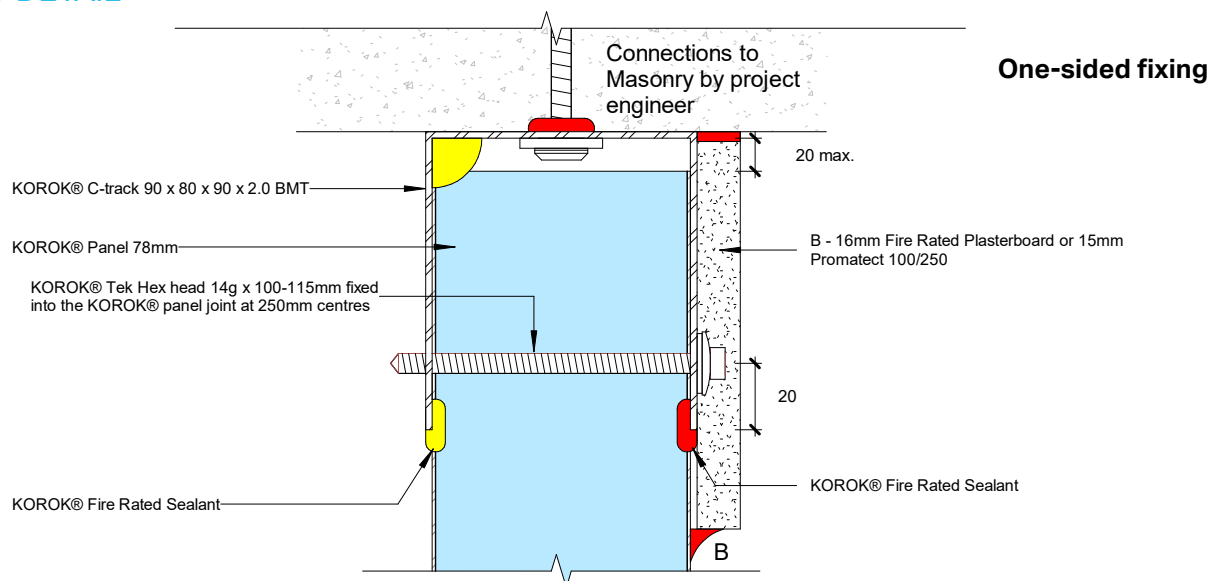


Library ref: KOROK_Ceiling_KCS_004b

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m.

KOROK® WALL TO CONCRETE/MASONRY

HEAD DETAIL

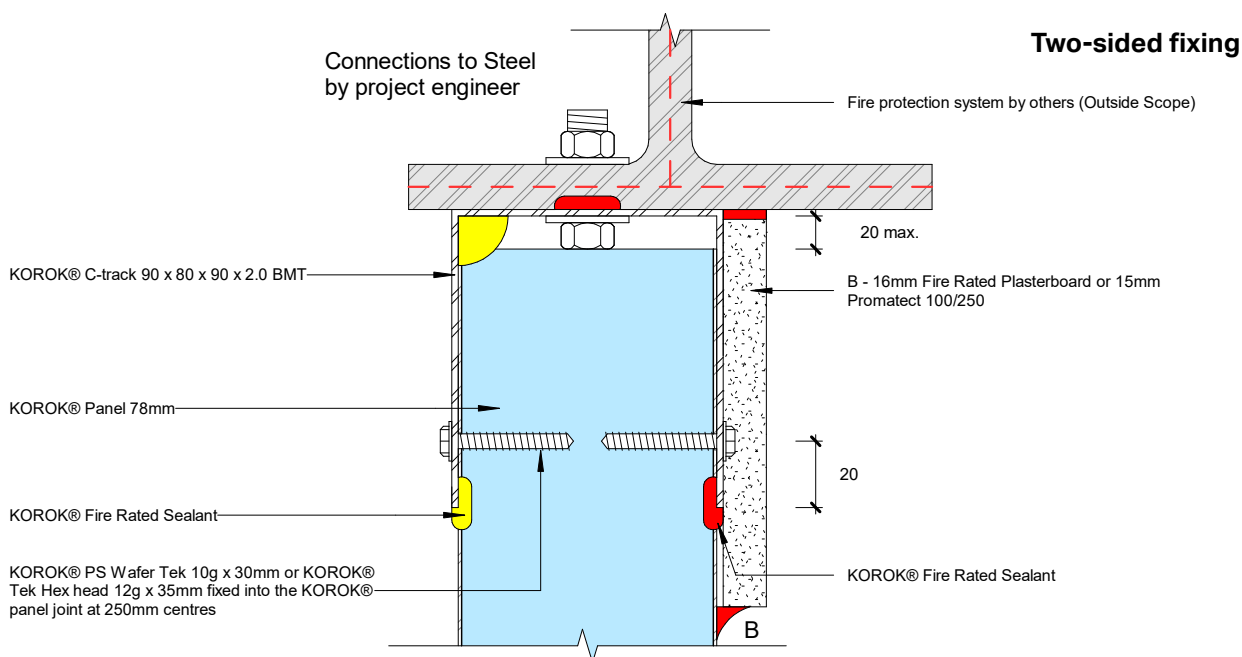
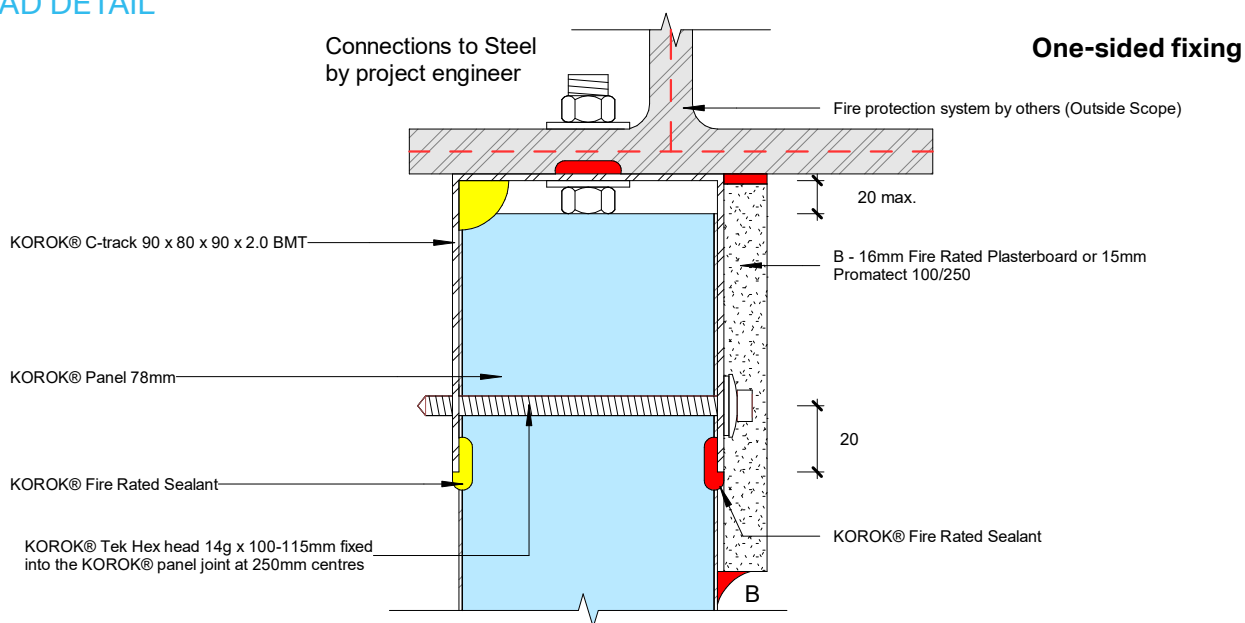


Library ref: KOROK_Ceiling_KCS_013a

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
B	-/120/120	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables. - KOROK® C-track 60 x 80 x 60 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

KOROK® WALL TO PROTECTED STRUCTURAL STEEL

HEAD DETAIL



Library ref: KOROK_Ceiling_KCS_014

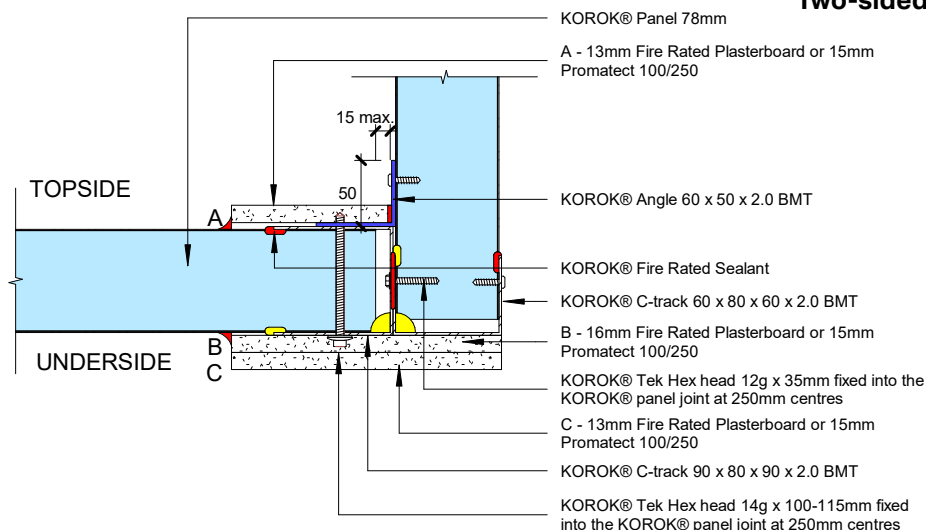
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
B	-/120/120	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables. - KOROK® C-track 60 x 80 x 60 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

KOROK® CEILING TO SUSPENDED KOROK® WALL

JUNCTION DETAILS FOR SPANS GREATER THAN 1.2 M

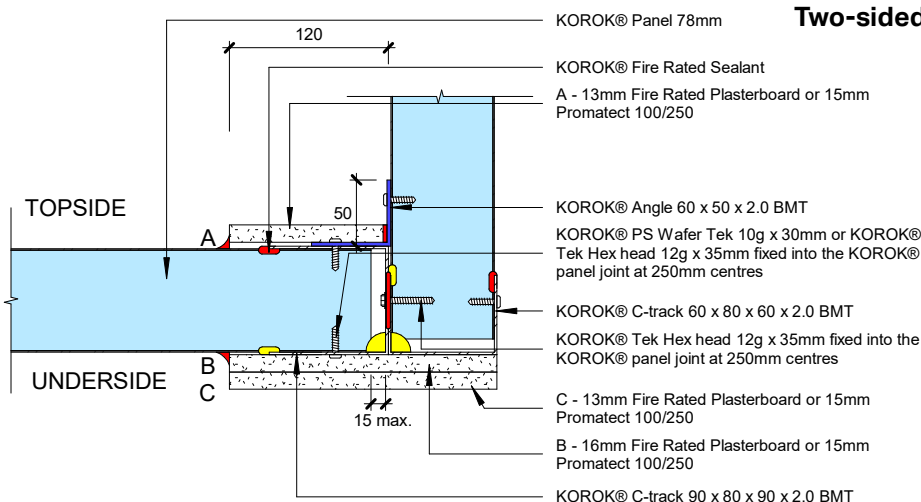
One-sided ceiling fixing

Two-sided wall fixing



Two-sided ceiling fixing

Two-sided wall fixing



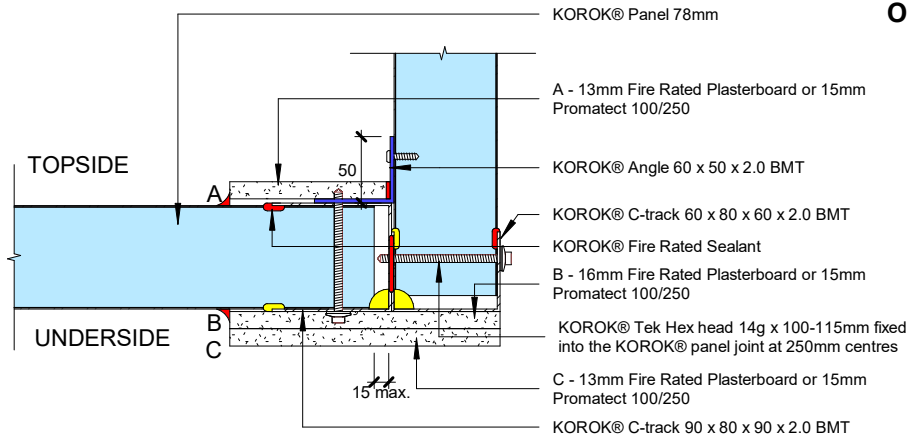
Library ref: KOROK_Ceiling_KCS_008c

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

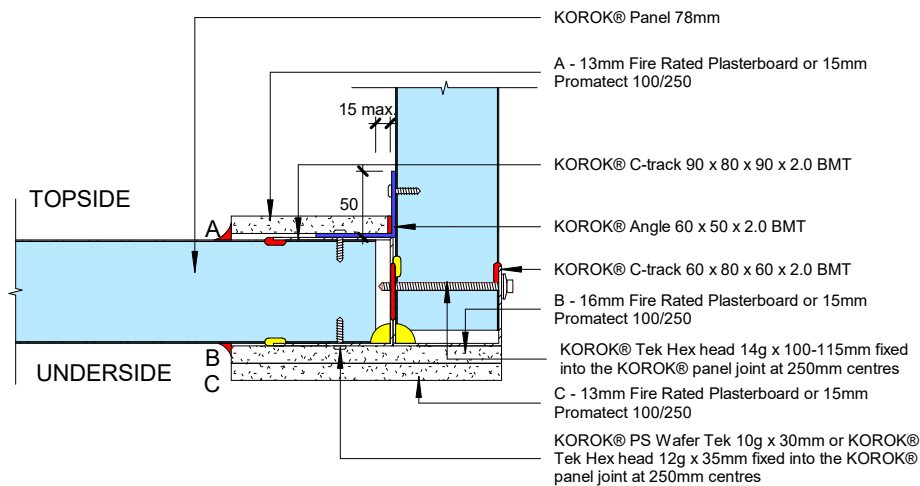
KOROK® CEILING TO SUSPENDED KOROK® WALL

JUNCTION DETAILS FOR SPANS GREATER THAN 1.2 M

One-sided ceiling fixing One-sided wall fixing



Two-sided ceiling fixing One-sided wall fixing



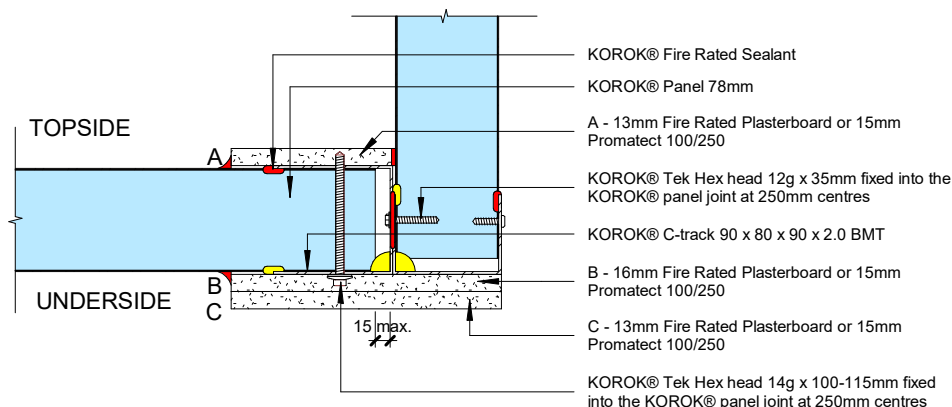
Library ref: KOROK_Ceiling_KCS_008d

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

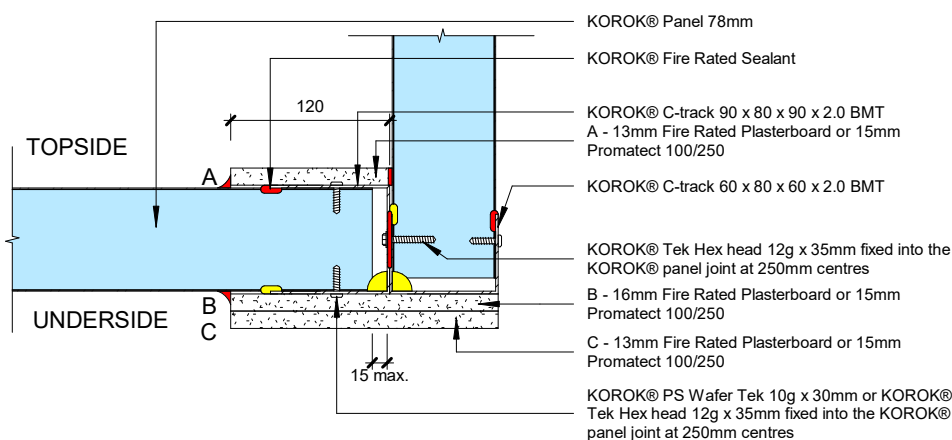
KOROK® CEILING TO SUSPENDED KOROK® WALL

JUNCTION DETAILS FOR SPANS LESS THAN 1.2 M

One-sided ceiling fixing Two-sided wall fixing



Two-sided ceiling fixing Two-sided wall fixing



Library ref: KOROK_Ceiling_KCS_008a

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

JUNCTION DETAILS FOR SPANS LESS THAN 1.2 M

One-sided

KOROK® Panel 78mm

KOROK® Fire Rated Sealant

A - 13mm Fire Rated Plasterboard or 15mm Promatect 100/250

KOROK® Tek Hex head 14g x 100-115mm fixed into the KOROK® panel joint at 250mm centres

KOROK® C-track 60 x 80 x 60 x 2.0 BMT

B - 16mm Fire Rated Plasterboard or 15mm Promatect 100/250

C - 13mm Fire Rated Plasterboard or 15mm Promatect 100/250

KOROK® C-track 90 x 80 x 90 x 2.0 BMT

TOPSIDE

UNDERSIDE

15 max.

KOROK® Tek Hex head 14g x 100-115mm fixed into the KOROK® panel joint at 250mm centres

TOPSIDE

UNDERSIDE

A

B

C

15 max.

KOROK® Panel 78mm

A - 13mm Fire Rated Plasterboard or 15mm Promatect 100/250

KOROK® Fire Rated Sealant

KOROK® C-track 90 x 80 x 90 x 2.0 BMT

KOROK® Tek Hex head 14g x 100-115mm fixed into the KOROK® panel joint at 250mm centres

KOROK® C-track 60 x 80 x 60 x 2.0 BMT

B - 16mm Fire Rated Plasterboard or 15mm Promatect 100/250

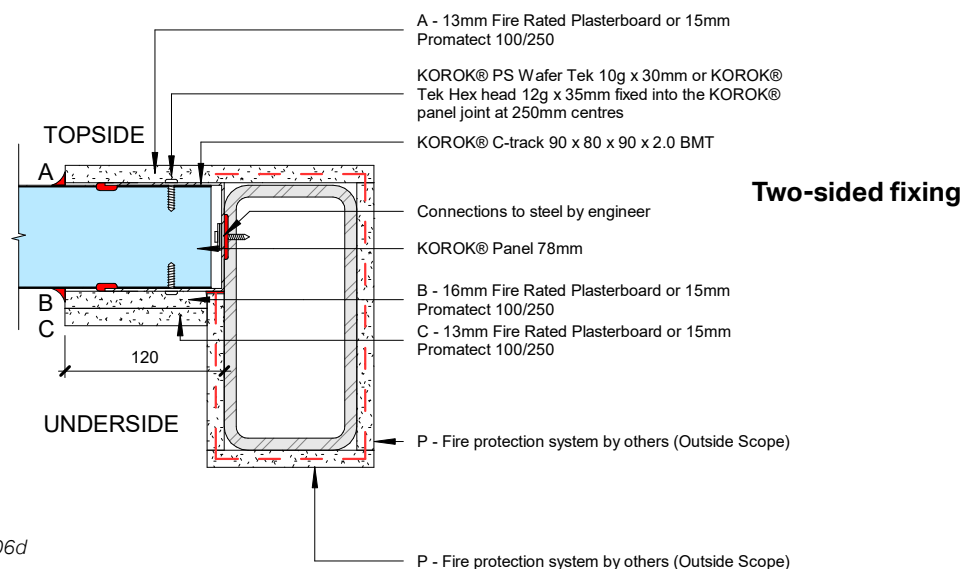
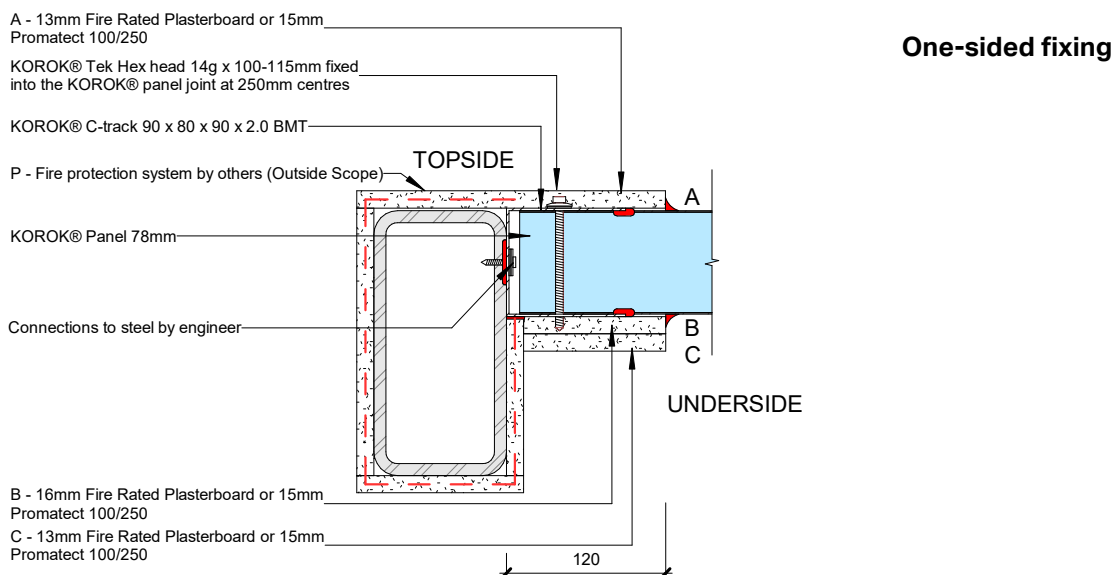
C - 13mm Fire Rated Plasterboard or 15mm Promatect 100/250

KOROK® PS Wafer Tek 10g x 30mm or KOROK® Tek Hex head 12g x 35mm fixed into the KOROK® panel joint at 250mm centres

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	• Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. • C-track fire protection strips to be a minimum of 120 mm wide. • KOROK® Cover flashings over the fire protection strips are optional (page 32).
A or B	-/120/30	• KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	• KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. • KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. • Additional fixings to structure may be required according to engineer specifications.

CEILING TO PROTECTED STRUCTURAL STEEL

STRUCTURAL STEEL CONNECTION DETAILS



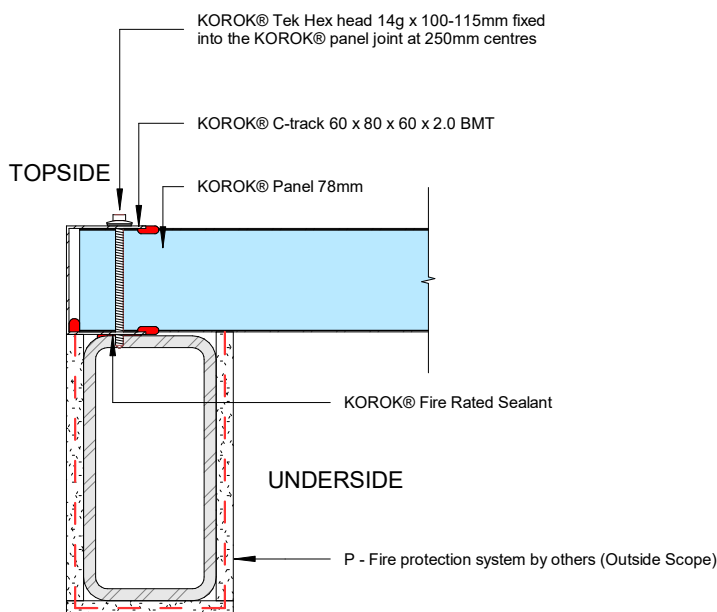
Library ref: KOROK_Ceiling_KCS_006d

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32).
A or B	-/120/30	KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

- 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.
- Where the primary elements supporting the KOROK® system are outside the fire cell, there is no requirement to apply the same FRR as the KOROK® system. Notwithstanding, post-fire stability requirements of the NZBC must be satisfied.

CEILING TO PROTECTED STRUCTURAL STEEL

STRUCTURAL STEEL CONNECTION DETAILS



Library ref: KOROK_Ceiling_KCS_006e

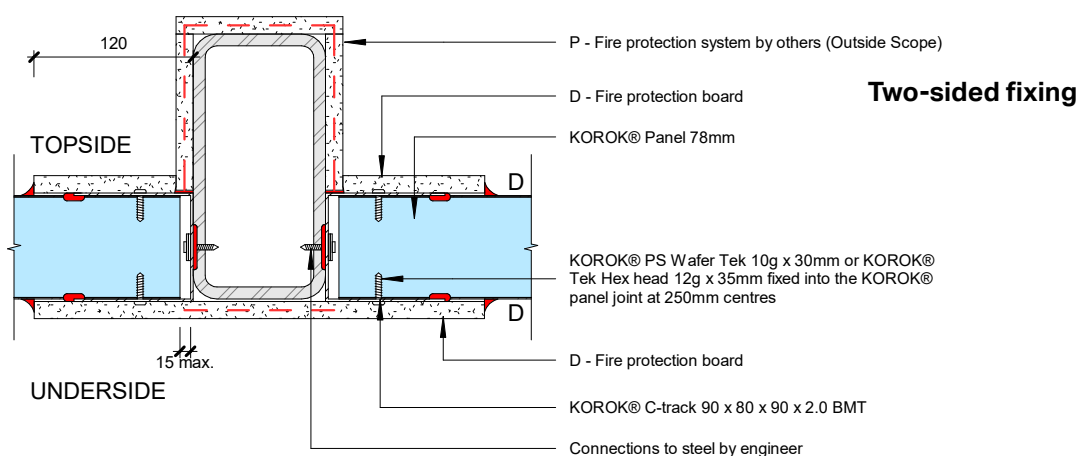
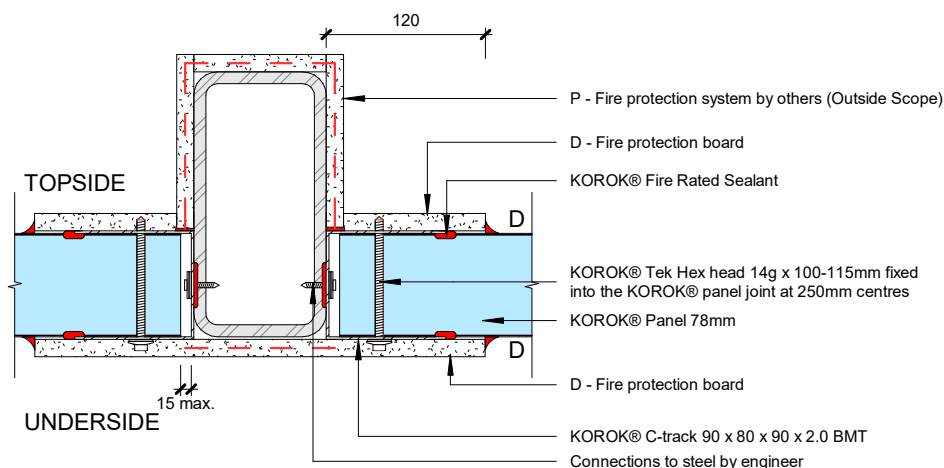
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/120	• Fire rated sealant: All locations shown in red and a minimum of one yellow. • C-track fire protection strips to be a minimum of 120 mm wide. • KOROK® Cover flashings over the fire protection strips are optional (page 32). • KOROK® Panel spans must not exceed system specification tables. • KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. • Additional fixings to structure may be required according to engineer specifications.

- 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.
- Where the primary elements supporting the KOROK® system are outside the fire cell, there is no requirement to apply the same FRR as the KOROK® system. Notwithstanding, post-fire stability requirements of the NZBC must be satisfied.

CEILING TO PROTECTED STRUCTURAL STEEL

INTERMEDIATE STRUCTURAL STEEL CONNECTION DETAILS

One-sided fixing



Library ref: KOROK_Ceiling_KCS_006a

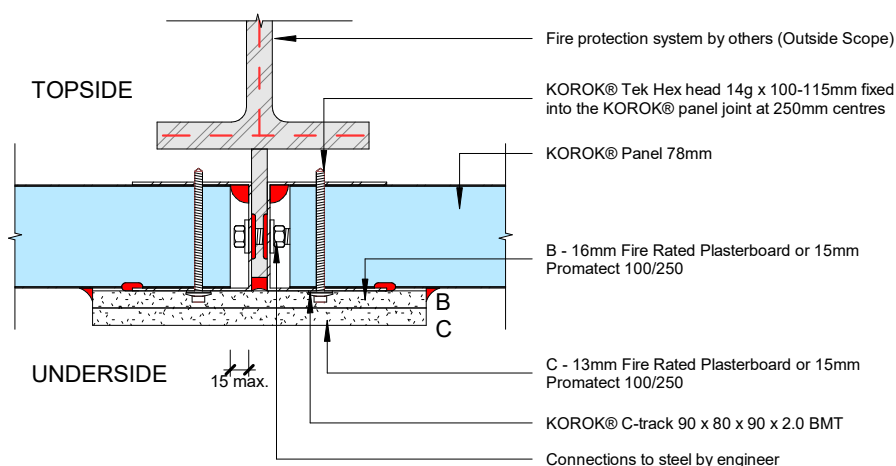
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
D+D	-/120/120	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables. - KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

- 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.
- Where the primary elements supporting the KOROK® system are outside the fire cell, there is no requirement to apply the same FRR as the KOROK® system. Notwithstanding, post-fire stability requirements of the NZBC must be satisfied.

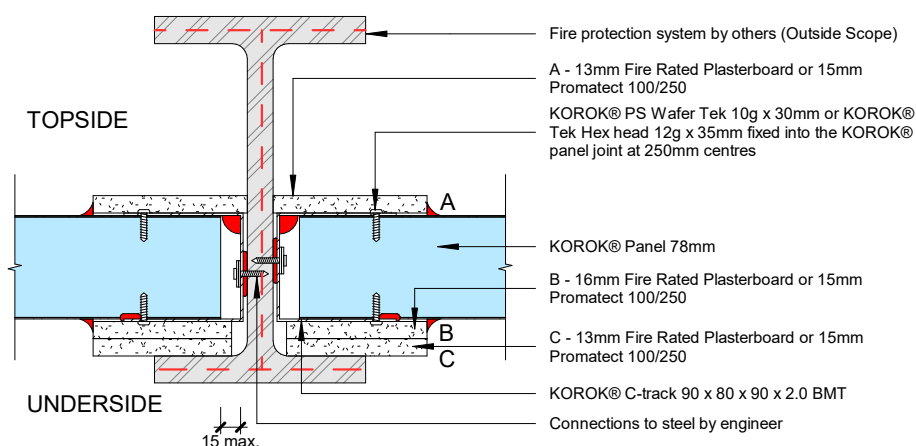
CEILING TO PROTECTED STRUCTURAL STEEL

INTERMEDIATE STRUCTURAL STEEL CONNECTION DETAILS

One-sided fixing



Two-sided fixing



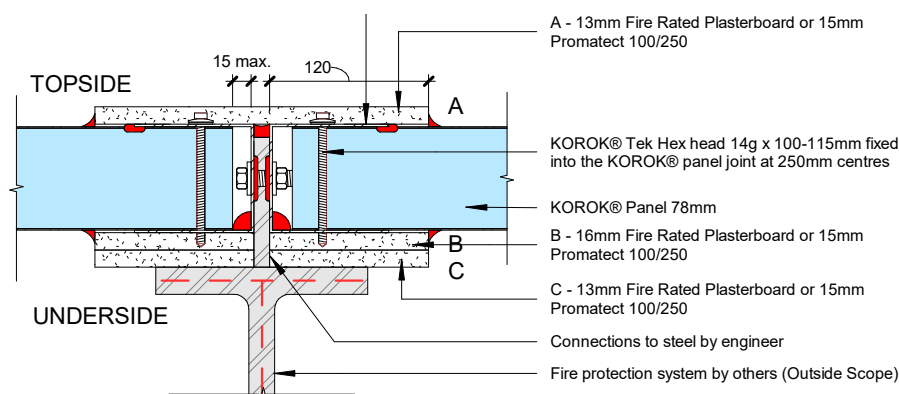
Library ref: KOROK_Ceiling_KCS_006b

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

- 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.
- Where the primary elements supporting the KOROK® system are outside the fire cell, there is no requirement to apply the same FRR as the KOROK® system. Notwithstanding, post-fire stability requirements of the NZBC must be satisfied.

CEILING TO PROTECTED STRUCTURAL STEEL

INTERMEDIATE STRUCTURAL STEEL CONNECTION DETAILS



Detail E

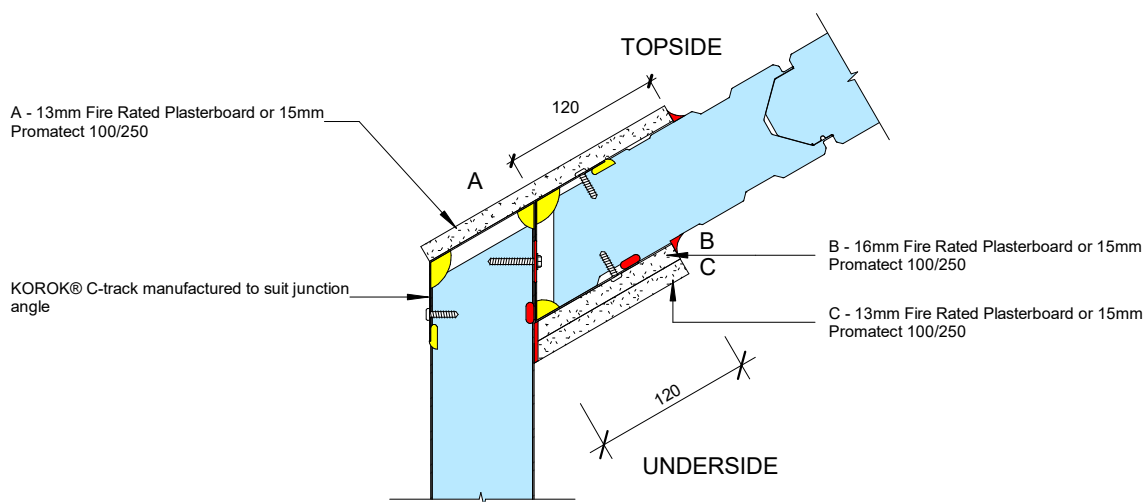
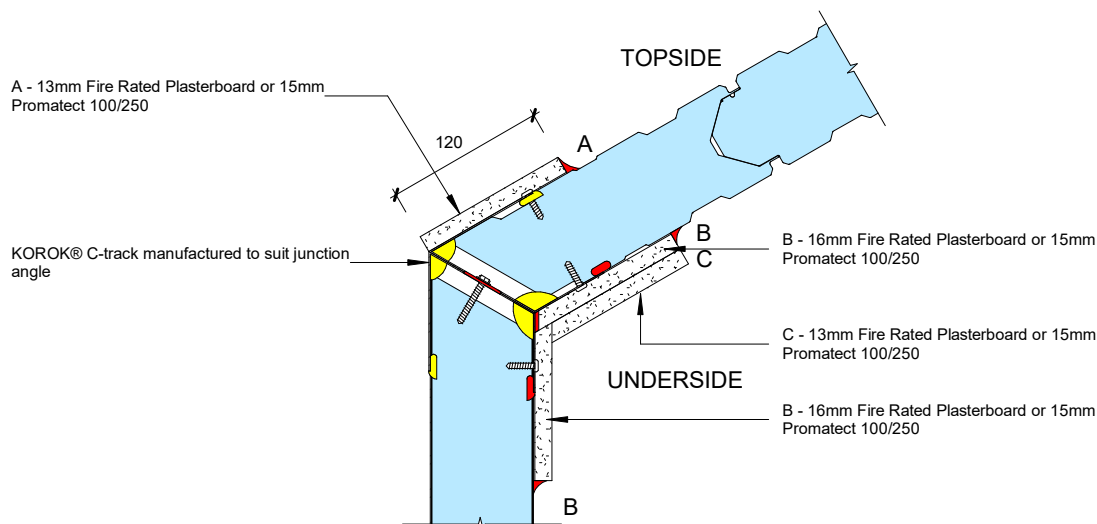
Library ref: KOROK_Ceiling_KCS_006c

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32).
A or B	-/120/30	KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

- 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.
- Where the primary elements supporting the KOROK® system are outside the fire cell, there is no requirement to apply the same FRR as the KOROK® system. Notwithstanding, post-fire stability requirements of the NZBC must be satisfied.

CEILING CONNECTIONS

INCLINED CEILING TO KOROK® WALL CONNECTION DETAILS

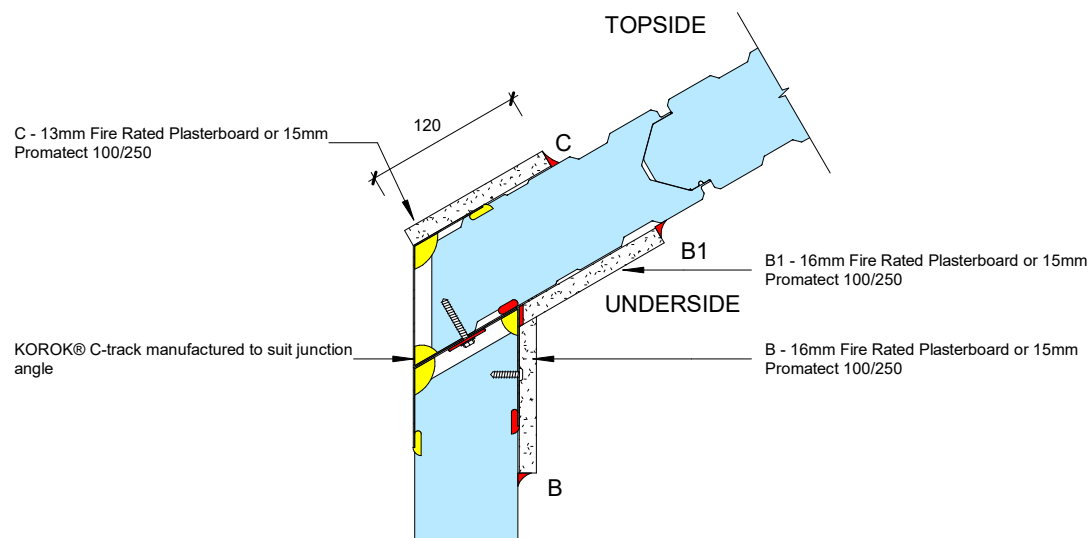


Library ref: KOROK_Ceiling_KCS_007a

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® C-track 60 x 80 x 60 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - KOROK® Angle 60 x 50 x 1.15 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

CEILING CONNECTIONS

INCLINED CEILING TO KOROK® WALL CONNECTION DETAILS

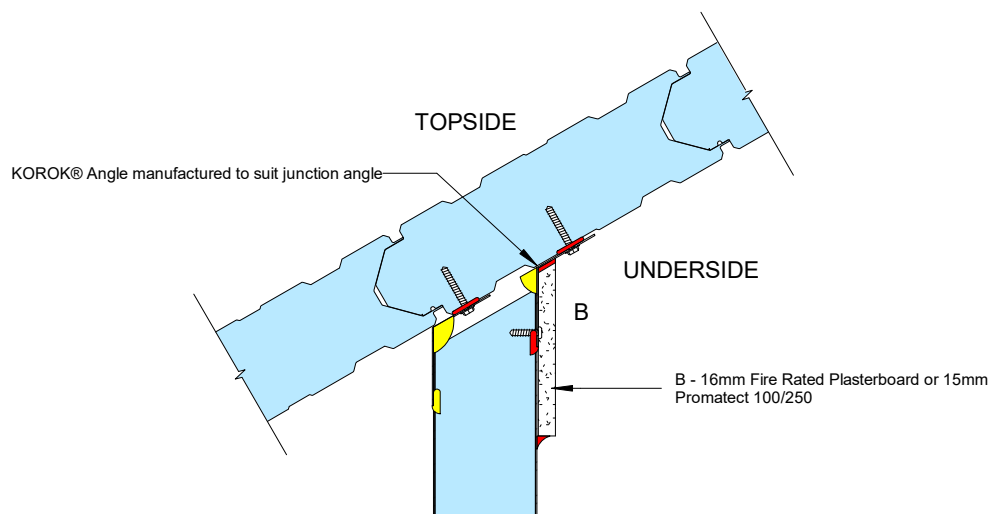
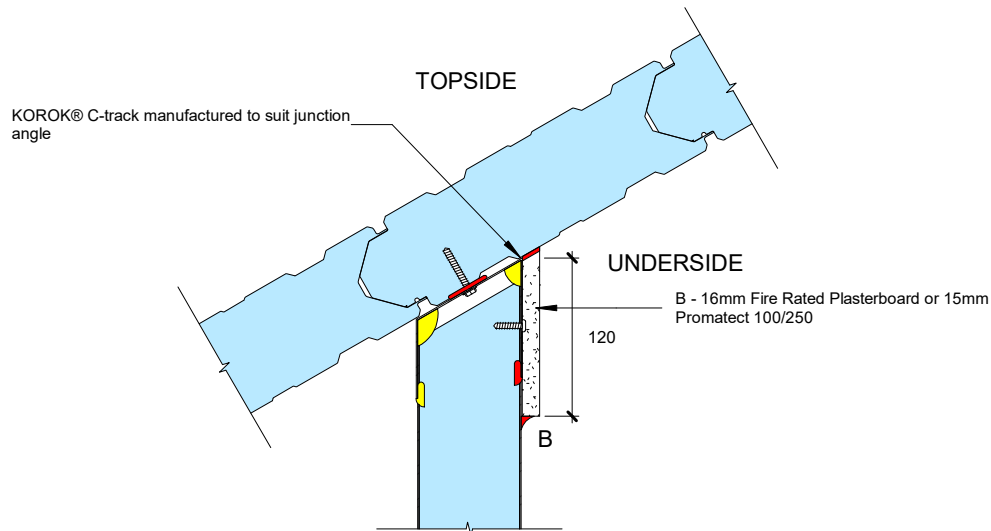


Library ref: KOROK_Ceiling_KCS_007b

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/60	• Fire rated sealant: All locations shown in red and a minimum of one yellow per C-track. • C-track fire protection strips to be a minimum of 120 mm wide. • KOROK® Cover flashings over the fire protection strips are optional (page 32). • KOROK® Panel spans must not exceed system specification tables.
B+B1 or B+C	-/120/120	

CEILING CONNECTIONS

INCLINED CEILING TO KOROK® WALL CONNECTION DETAILS

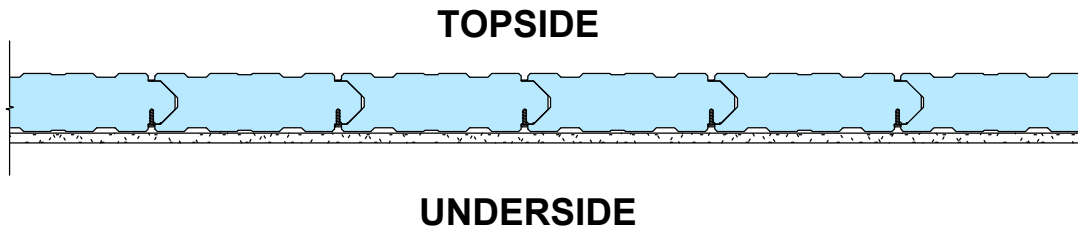


Library ref: KOROK_Ceiling_KCS_007c

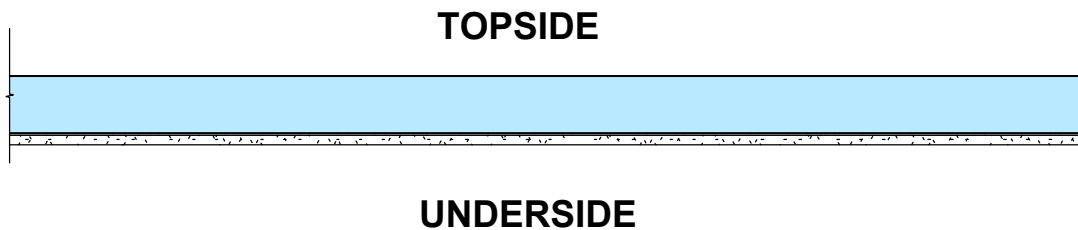
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/60	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
B	-/120/120	

OPTIONAL CEILING CLADDING

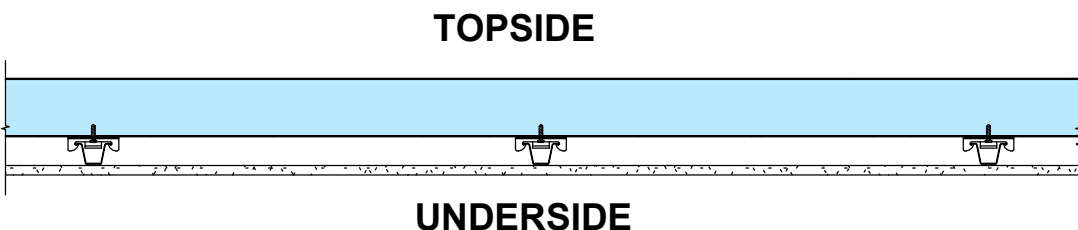
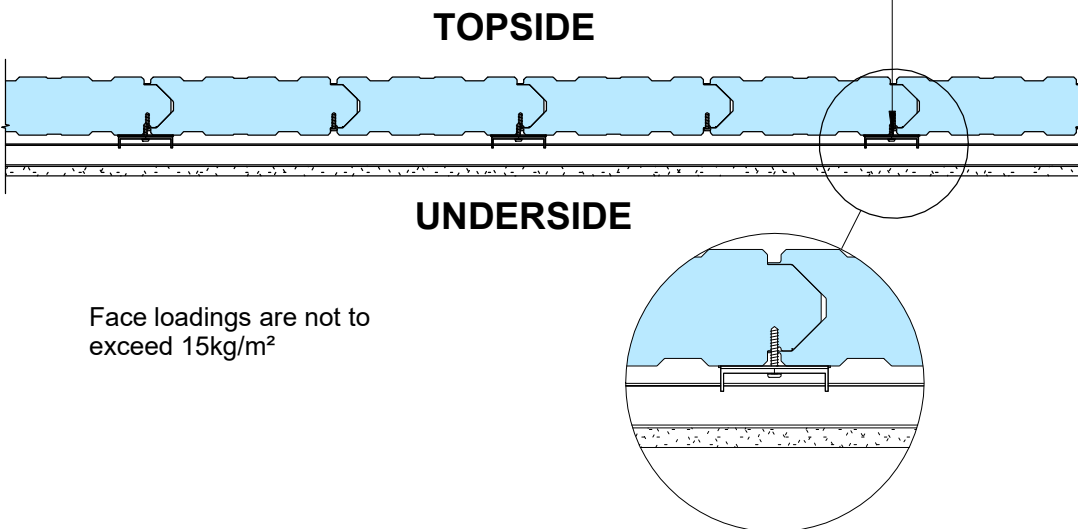
Ceiling can be lined with cladding on the underside (direct fixed or fixed via furring channels). Furring channel clips are to be screw-fixed into the KOROK® panel joint.



Face loadings are not to exceed 15kg/m²

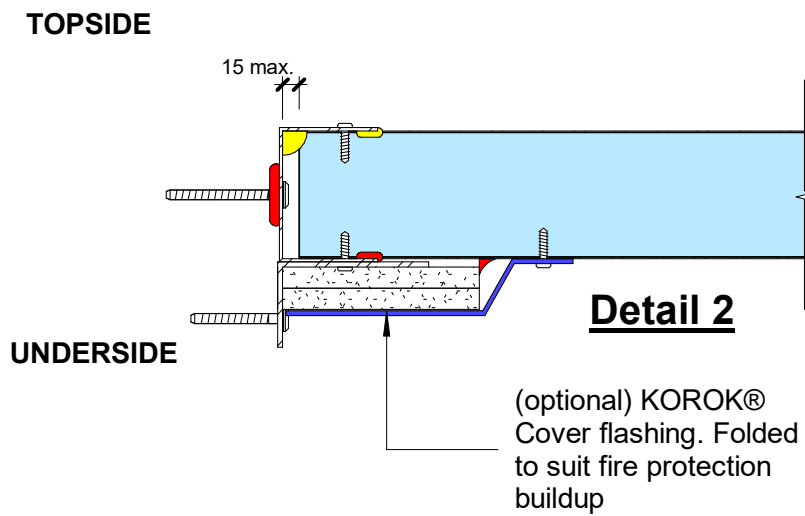
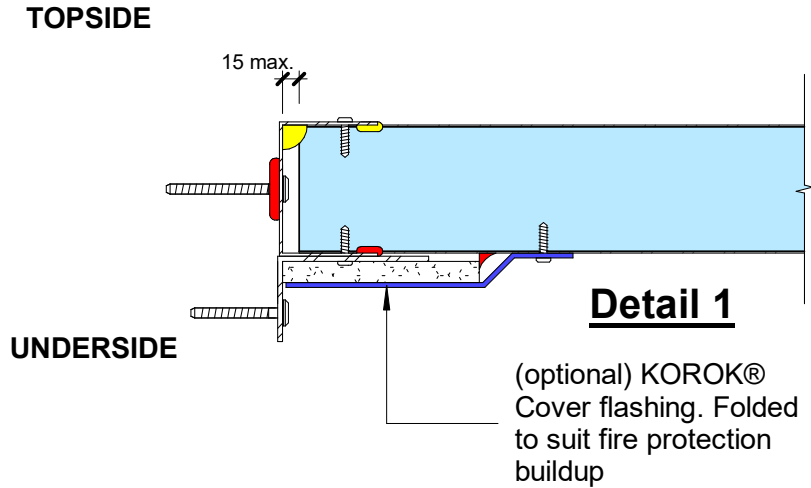


Screw fixing connections into the KOROK® panel joint, (Consult your project engineer for fixing centres)



Library ref: KOROK_Ceiling_KCS_009a

OPTIONAL KOROK® COVER FLASHING

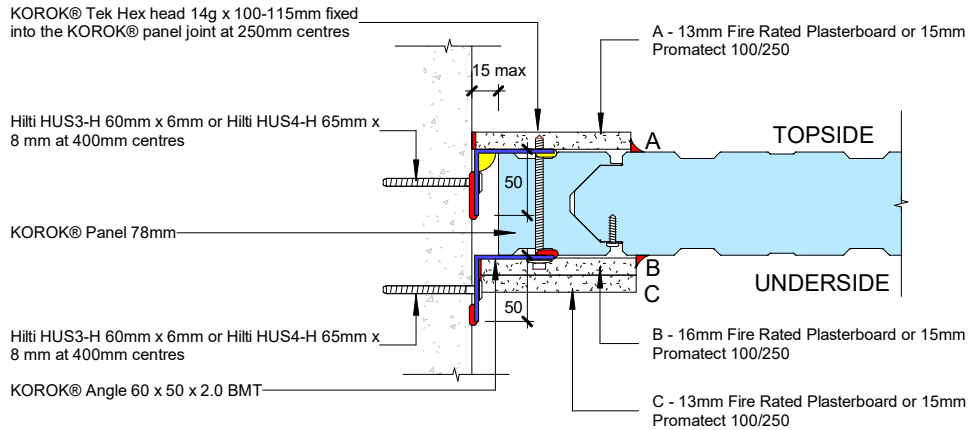


Cover Flashing Illustration to edge protection systems

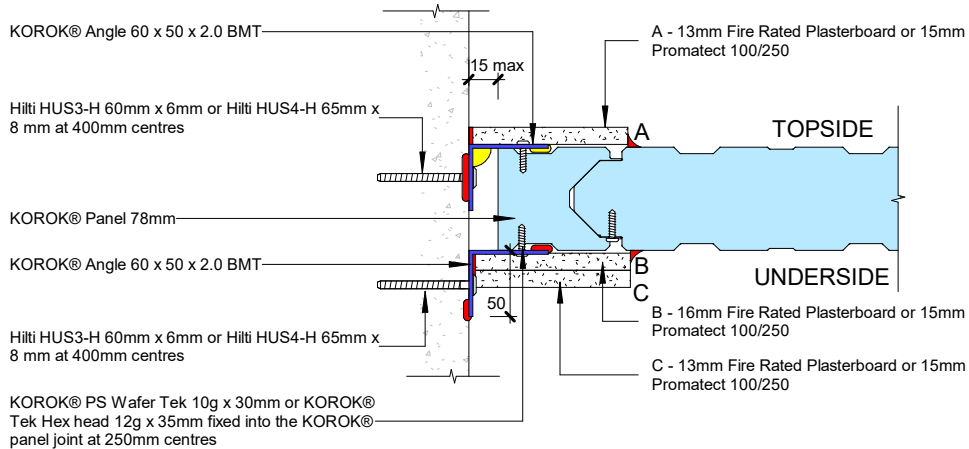
Library ref: KOROK_Ceiling_KCS_024

CEILING CLOSE OFF JUNCTION

One-sided fixing



Two-sided fixing

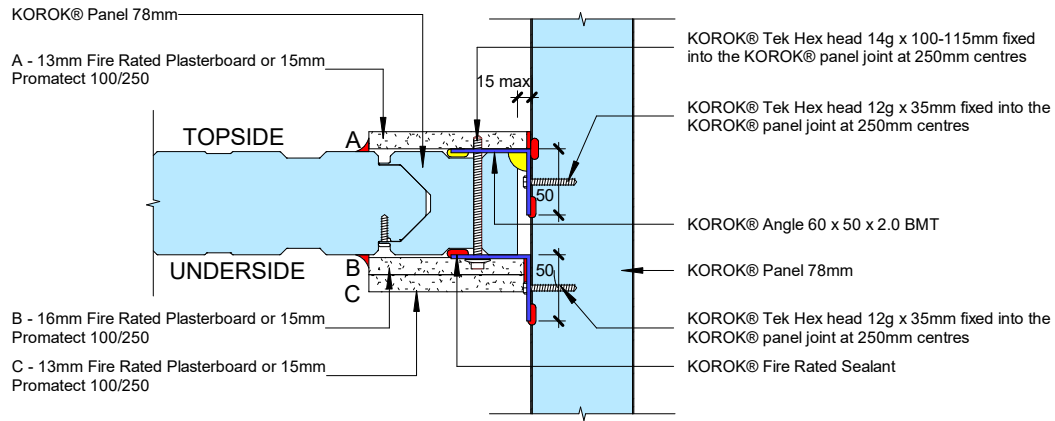


Library ref: KOROK_Ceiling_KCS_002b

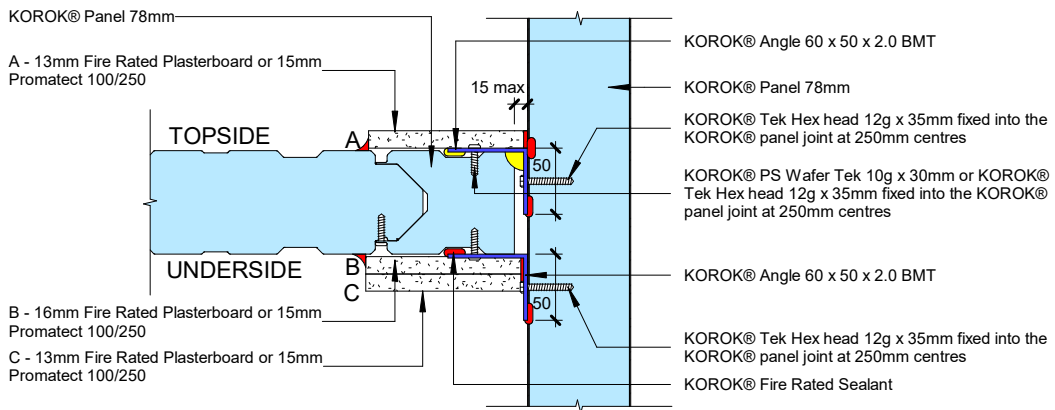
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® Angle 60 x 50 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

CEILING CLOSE OFF JUNCTION

One-sided fixing



Two-sided fixing

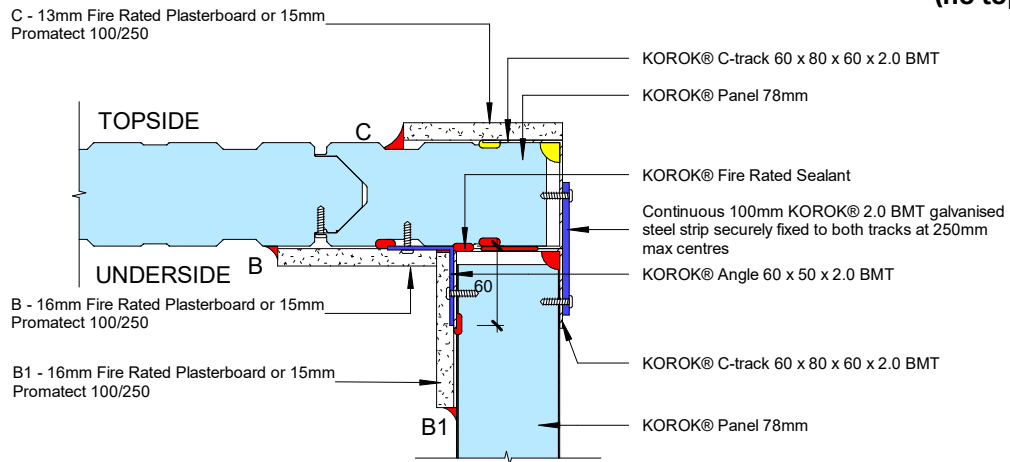


Library ref: KOROK_Ceiling_KCS_003b

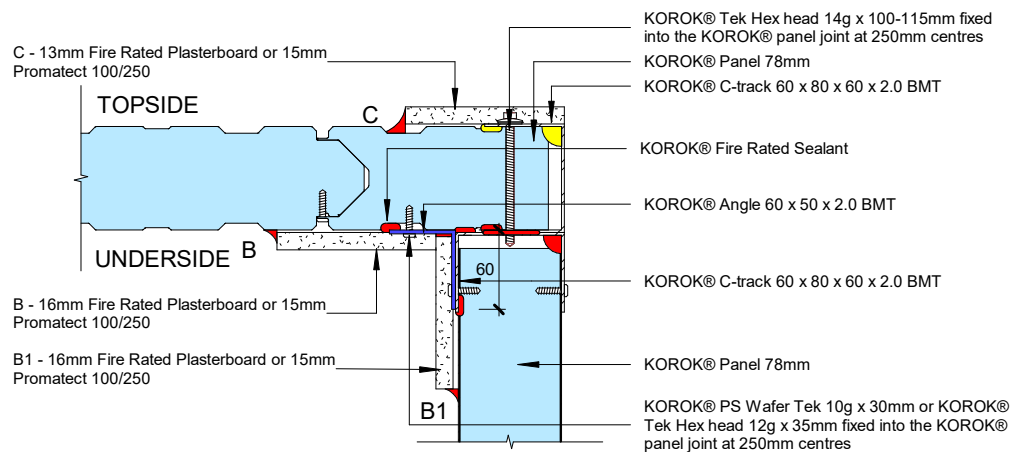
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables. - KOROK® Angle 60 x 50 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.
A or B	-/120/30	
A+B or B+C	-/120/120	

CEILING CLOSE OFF JUNCTION

Joining plate fixed (no top screw)



Top screw fixed

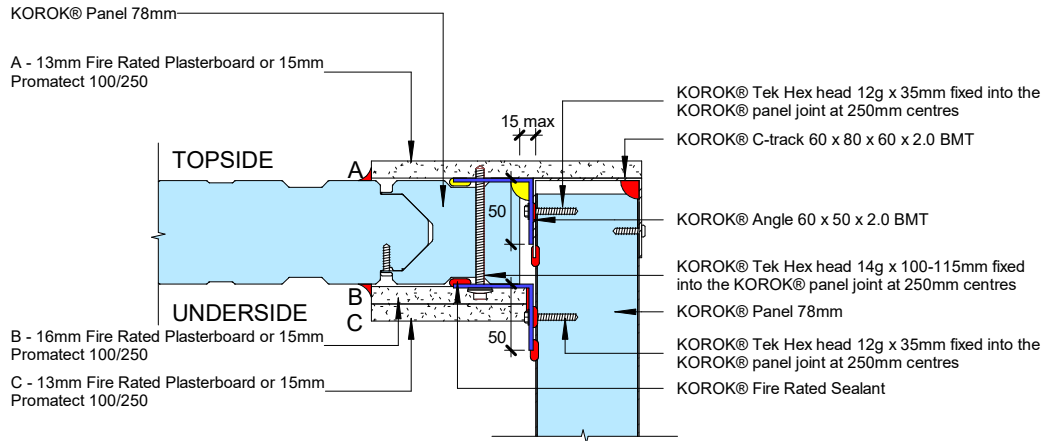


Library ref: KOROK_Ceiling_KCS_004d

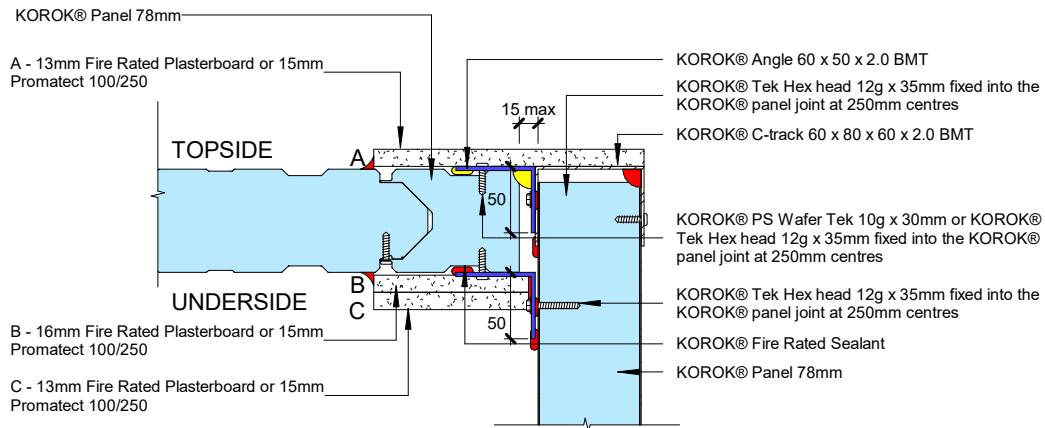
C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/60	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide. - KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
B+B1 or C+B1	-/120/120	

CEILING CLOSE OFF JUNCTION

One-sided fixing



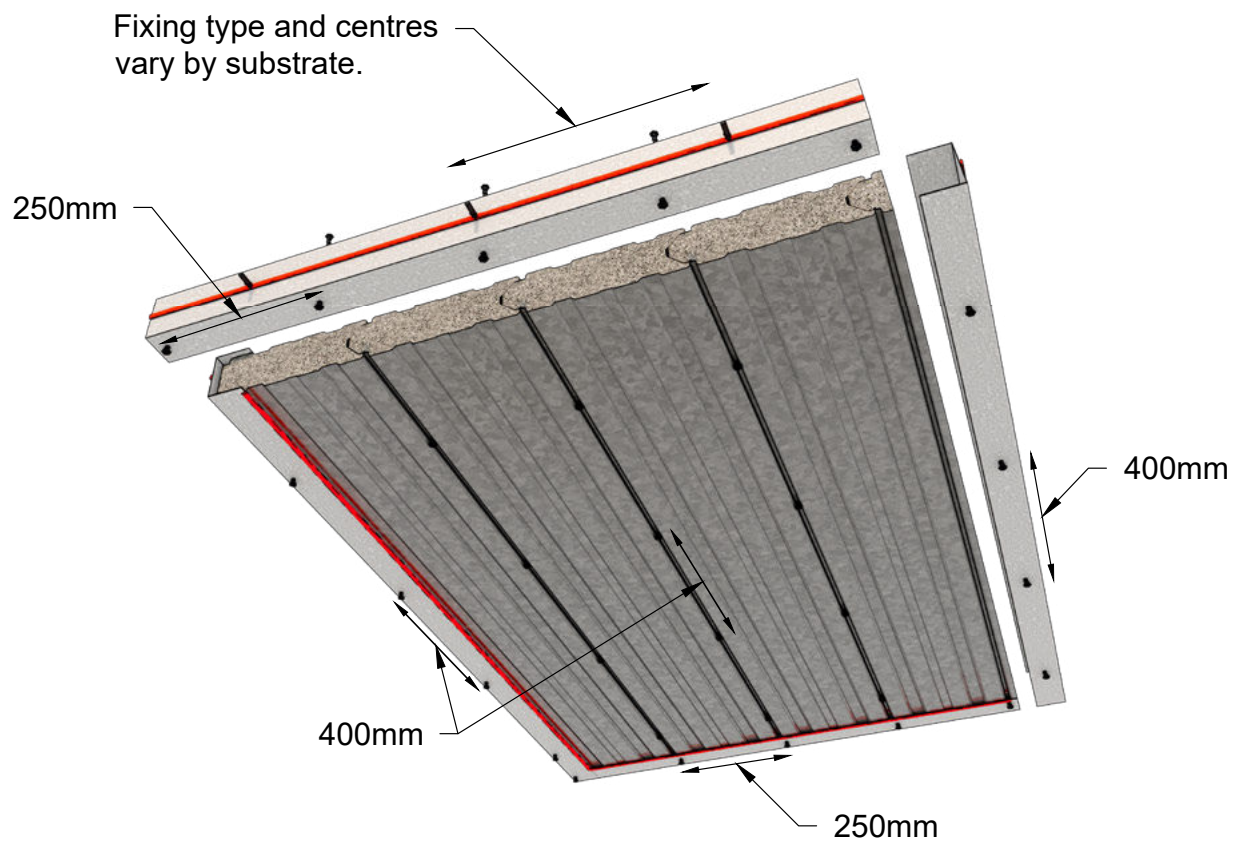
Two-sided fixing



Library ref: KOROK_Ceiling_KCS_004c

C-track Fire Protection Options	Fire Resistance Rating (FRR)	Notes
No C-track fire protection	-/120/-	- Fire rated sealant: All locations shown in red and a minimum of one yellow. - C-track fire protection strips to be a minimum of 120 mm wide.
A or B	-/120/30	- KOROK® Cover flashings over the fire protection strips are optional (page 32). - KOROK® Panel spans must not exceed system specification tables.
A+B or B+C	-/120/120	- KOROK® Angle 60 x 50 x 2.0 BMT may be used for ceiling spans less than 1.2 m. - Additional fixings to structure may be required according to engineer specifications.

INSTALLATION

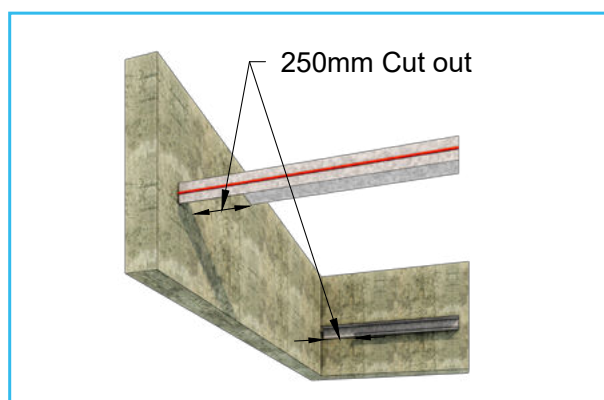


Notes:

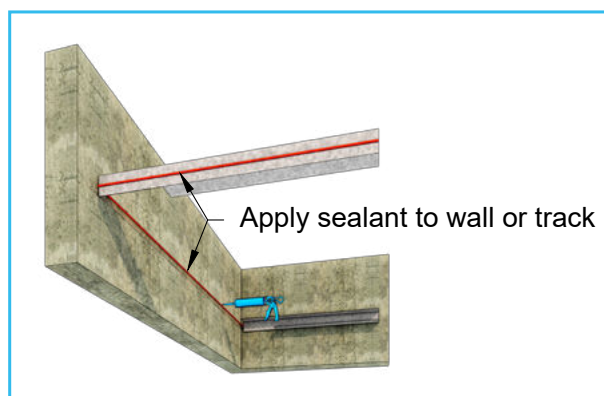
- Refer to chosen connection details for fire sealant applications.
- Panel to panel fixing: KOROK® PS Wafer Tek 10-16 x 16mm C3 to be installed at 400 mm minimum centres to the underside of the KOROK® ceiling panel joints.
- Perimeter fixings as per the system details.

INSTALLATION

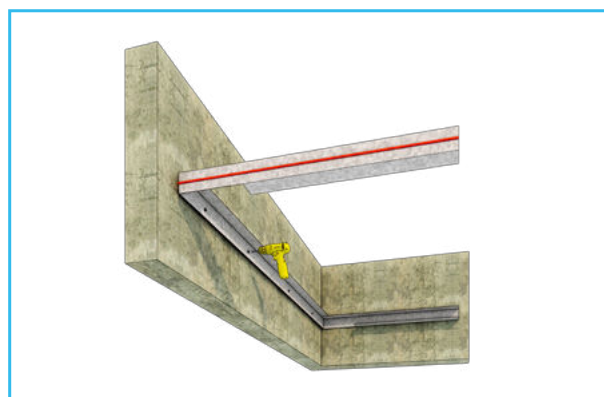
- 1** Confirm KOROK® ceiling system.
- 2** Confirm junction details based on FRR and supporting structure.
- 3** Confirm C-track and angle requirements:
Spans greater than 1.2 m: 2.0 mm BMT KOROK® C-track and angles
Spans less than 1.2 m: 1.15 mm BMT KOROK® C-track and up to 2.0 mm BMT
- 4** The KOROK® ceiling panel requires the perimeter C-track and/or perimeter angles to be fixed to the supporting structure; KOROK® walls, concrete/masonry, or structural steel.
- 5** Plan the set out, and the location of the close off panel (see Step 13). Cut the C-track and angle to suit.



- 6** To ensure the C-track is sealed to the structure, a continuous bead of fire sealant is run around the perimeter before the C-track or angle sections are laid and fixed.
Or the sealant can be applied directly to the C-track or angles before fixing in place.



- 7** Pre-drill the C-track and/or angle sections as required.
 - **Fixings into** concrete/masonry at **maximum** 400 mm centres.
 - **Fixings into** KOROK® wall panel joints at 250 mm centres.
 - **Fixings into** steel shall be as per the engineers details, and shall not exceed 400 mm centres.

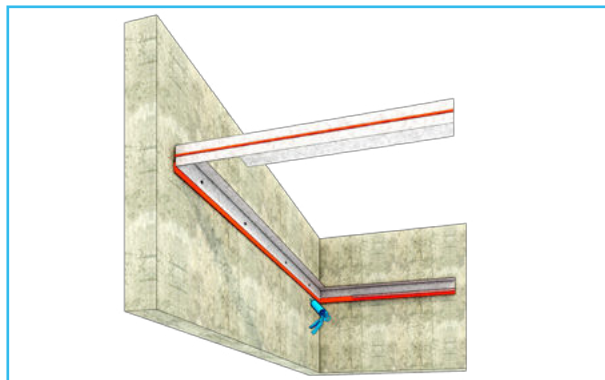


INSTALLATION

8 Secure the C-tracks and angles to the supporting structure.

If the surrounding surface is uneven add a continuous bead of sealant around the perimeter of the C-track where it contacts the surrounding surface.

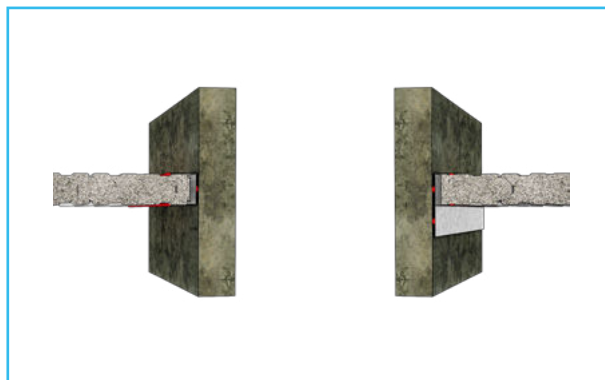
KOROK® Fire Rated Sealant shall be applied at the locations as indicated on the ceiling system junction details.



9 Prepare the KOROK® panels.

Cut the KOROK® ceiling panel lengths between 20 mm and 30 mm shorter than the structural opening to allow for fitting. The gap at each end must not exceed 15 mm. The male nose section of a panel can be cut off and placed into the female end of the starter panel. Alternatively, the cut edge of a starter panel can be installed.

The KOROK® panel can be cut to length and width using a radial saw with dust extraction. Diamond cutting discs are recommended for radial saws.



10 Install the KOROK® panels.

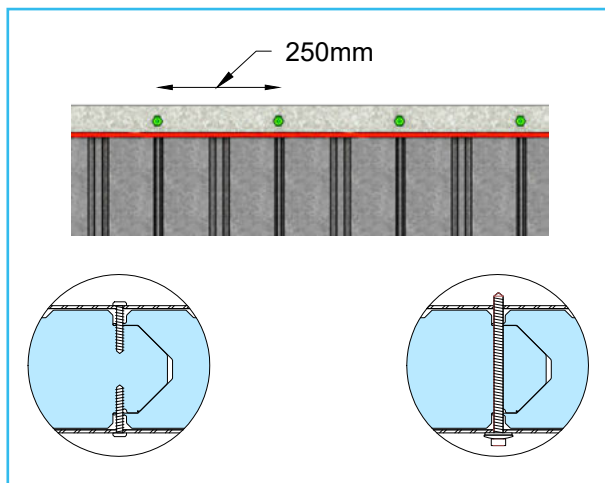
Where panels are supplied with protective film, remove the film from the non-accessible face prior to installation.

On the exposed face, pull back approximately 300 mm of film at each end of the panel before placing the panel into the C-track.

The first panel is to be installed square into the parallel side C-track. Screw fix the panel into place at 400 mm centres to both sides of the parallel C-track with KOROK® PS Wafer Tek 10-16 x 16 mm C3 screws. Fit the remaining panels, coordinating with angle sections where applicable.

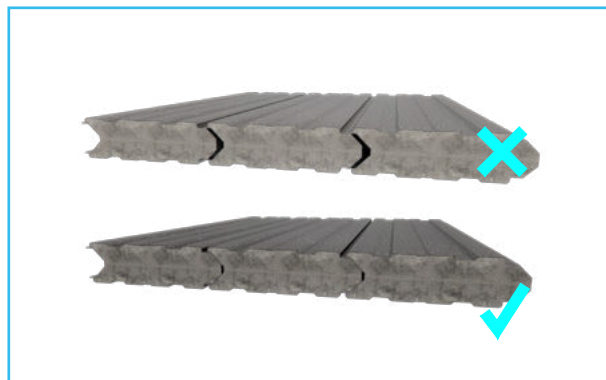


11 Each additional KOROK® ceiling panel shall then be installed and fixed to the perimeter C-tracks at 250 mm centres into the panel joints using KOROK® PS Wafer Tek 10-16 x 30 mm C3 screws or KOROK® Tek Hex head 12g x 35 mm C4 screws on both sides, or one-sided fixing with KOROK® Tek Hex head 14g x 100-115 mm C4 screws.



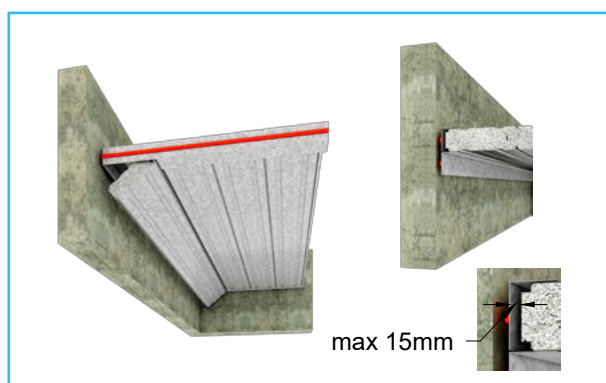
INSTALLATION

12 Ensure the panels are installed together correctly to maintain the fire and acoustic performance. Remove strippable film at the end of each day's work.

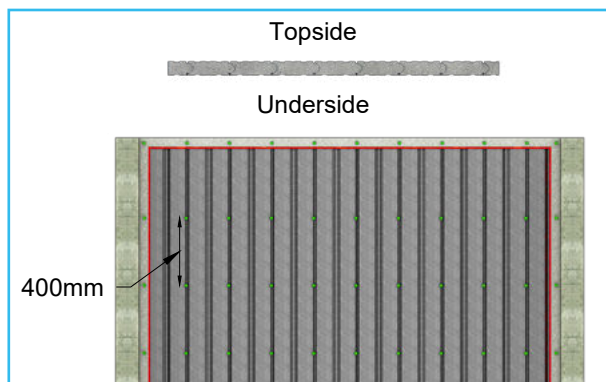


13 LAST PANEL

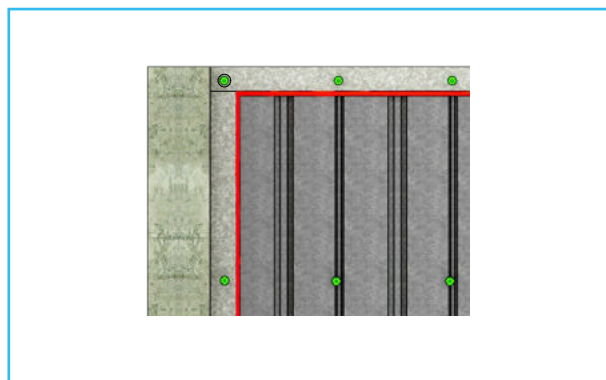
Ensure KOROK® Fire rated sealant is applied as per the relevant junction detail. Install the last panel using a tilt and push action. Install the secondary 60 x 50 mm KOROK® angles to the supporting structure. The screw fixing of the angles to the KOROK® panel shall be at 400 mm centres. Fixings shall be in accordance with the junction details.



14 Panel to panel screw fixing is required. Screw together into every panel joint spaced at 400 mm maximum centres to the underside of the ceiling using KOROK® PS Wafer Tek 10-16 x 16 mm C3 screws.

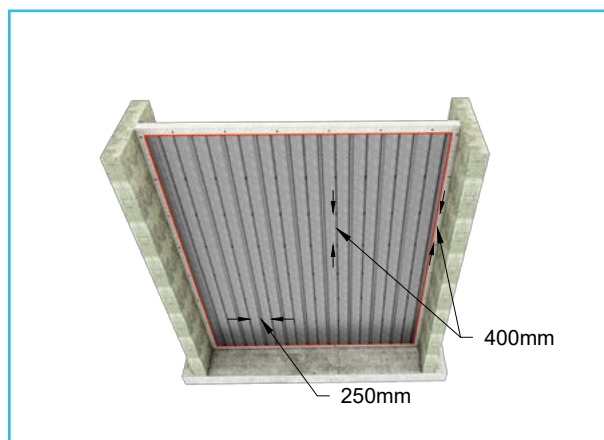


15 At corners where the two lengths of the KOROK® C-track intersect, the two pieces must be fixed to each other with at least one KOROK® PS Wafer Tek 10-16 x 16 mm or 30 mm C3 screw.

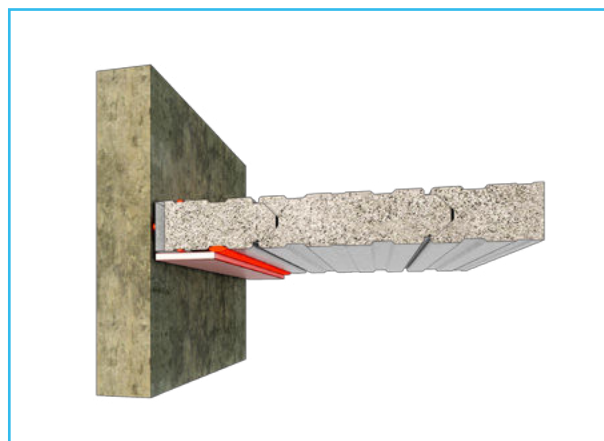


INSTALLATION

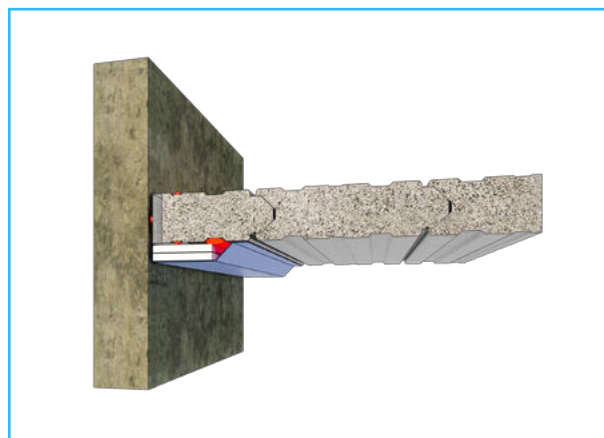
16 Check all remaining fixings have been installed and apply a continuous bead of fire rated sealant between the KOROK® C-track and the KOROK® panels.



17 Where edge track fire protection strips are required, they shall be screw fixed to the KOROK® perimeter with pairs of the board manufacturers system appropriate screws at 250 mm centres.



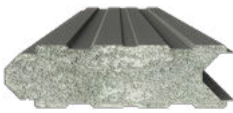
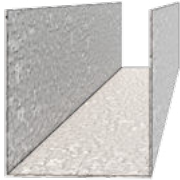
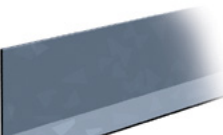
18 Optional: KOROK® cover flashings can be installed.

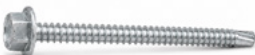


FINAL CHECK

At the completion of the job and at the finish of each day's work, it is essential that the completed area is thoroughly cleaned of all swarf, rivet stems, nails, drillings, 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.

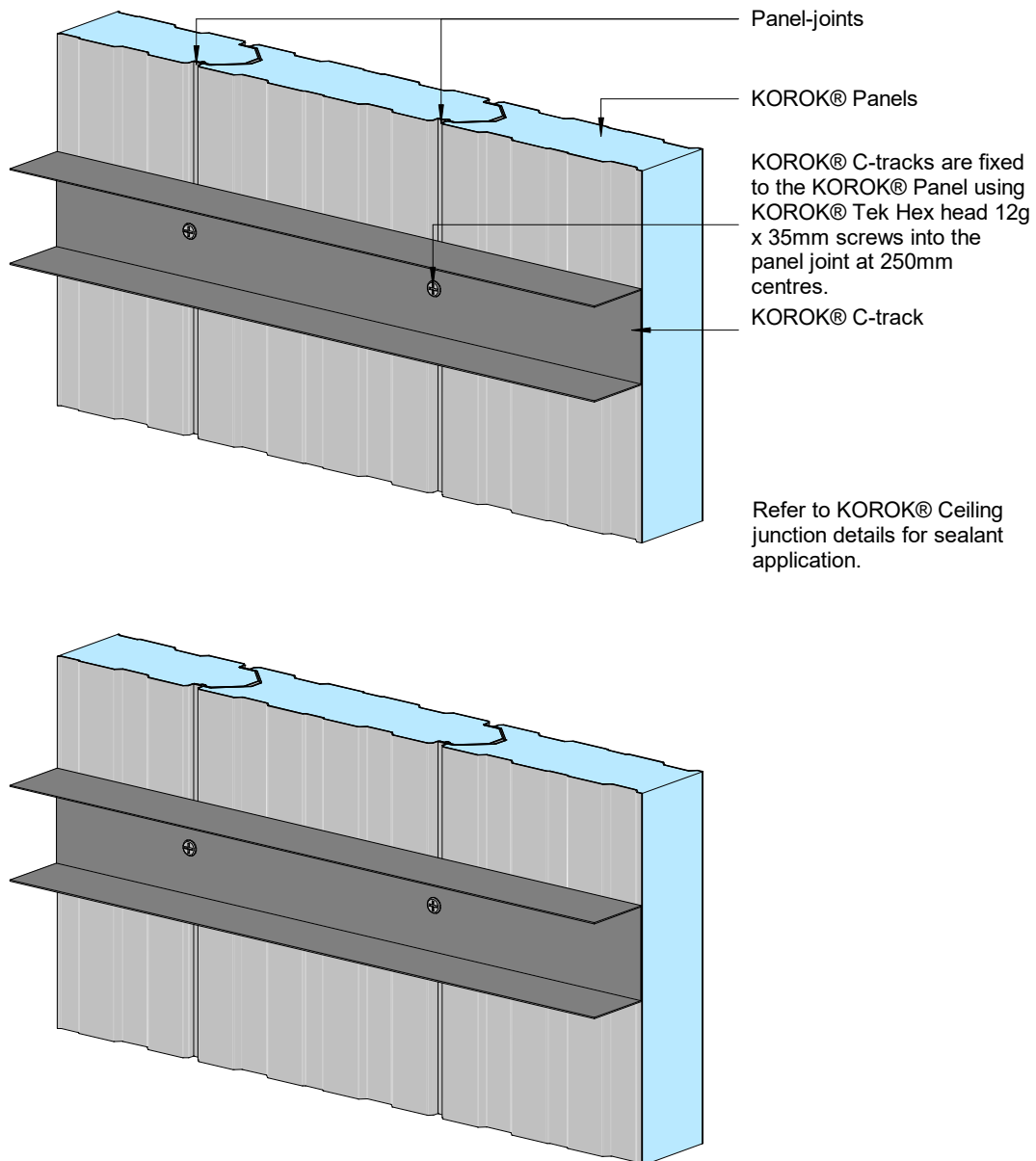
KOROK® COMPONENTS SUMMARY

Product Image	Item Description
	PN1318 KOROK® Panel 78mm Galv 400kg/m³ Gen2
	PN1256 KOROK® C-track 60 x 80 x 60 mm 2.00 BMT PN1140 KOROK® C-track 60 x 80 x 60 mm 1.15 BMT
	PN1255 KOROK® C-track 90 x 80 x 90 mm 2.00 BMT PN1258 KOROK® C-track 90 x 80 x 90 mm 1.15 BMT
	PN1157 KOROK® MS Fire Seal PN1161 KOROK® Acrylic Fire Seal
	
	PN1281 KOROK® Angle Galv 60 x 50 x 2.00 BMT PN1150 KOROK® Angle Galv 60 x 50 x 1.15 BMT
	PN1249 KOROK® Joining plate 100 mm 2.00 BMT
	Cover flashing - manufactured to specified size

Product Image	Item Description
	PN1313 KOROK® Tek Hex head 12g x 35mm C4
	PN1178 KOROK® Tek Hex head 14-20 x 115mm C4
	PN1182 KOROK® Tek Hex head 14-20 x 100mm C4
	PN1343 Hilti Screw Anchor HUS3-H 6mm x 60mm
	PN1346 Hilti Screw Anchor HUS4-H 8mm x 65mm
	PN1170 KOROK® PS Wafer Tek 10-16 x 16mm C3
	PN1171 KOROK® PS Wafer Tek 10-16 x 30mm C3

ADDITIONAL RESOURCES

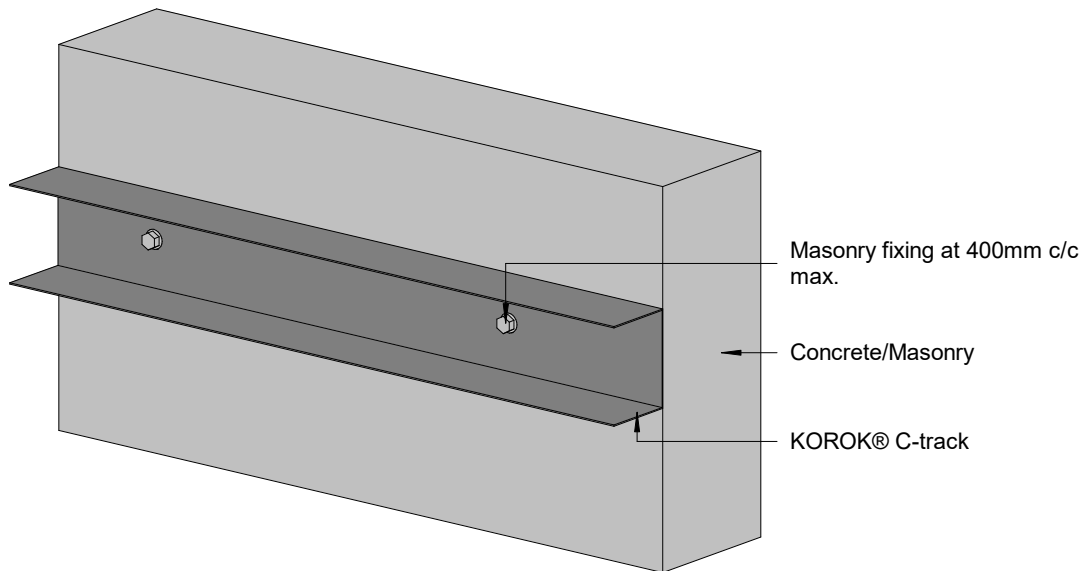
C-TRACK FIXING TO VERTICAL KOROK® WALL



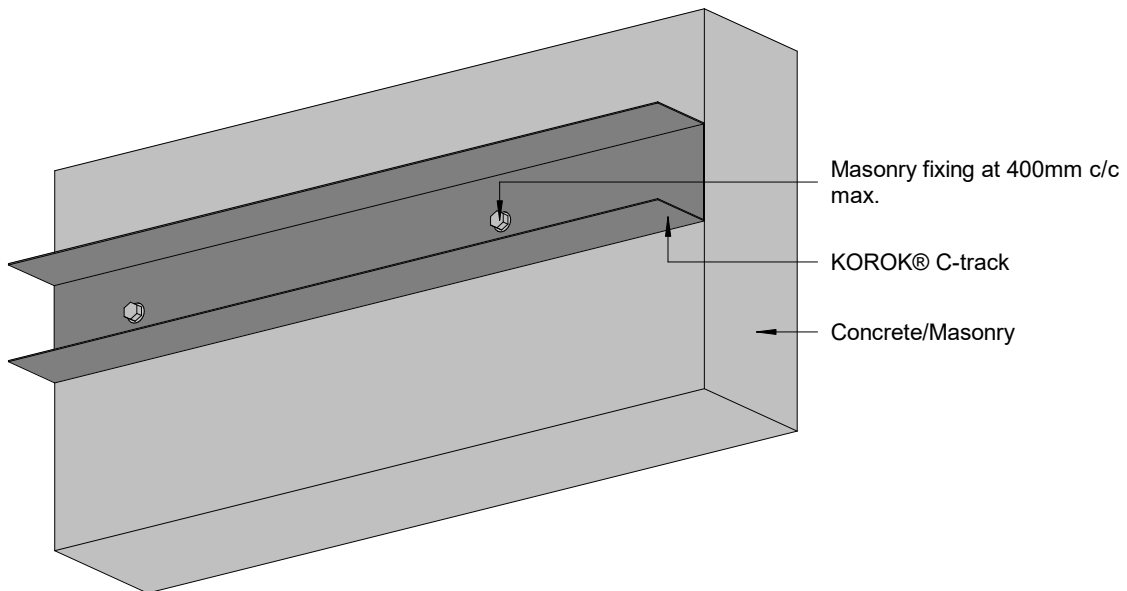
Library ref: KOROK_Ceiling_KCS_022

ADDITIONAL RESOURCES

C-TRACK FIXING TO CONCRETE/MASONRY WALL



Refer to KOROK® Ceiling
junction details for sealant
application.

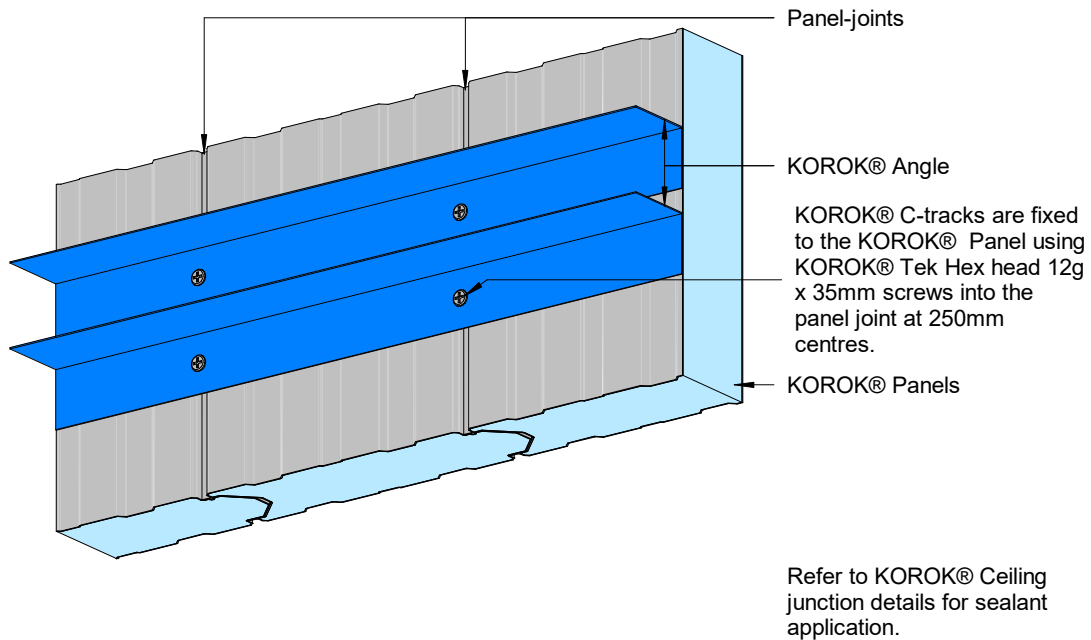


KOROK® C-track fixing to Concrete/Masonry Wall

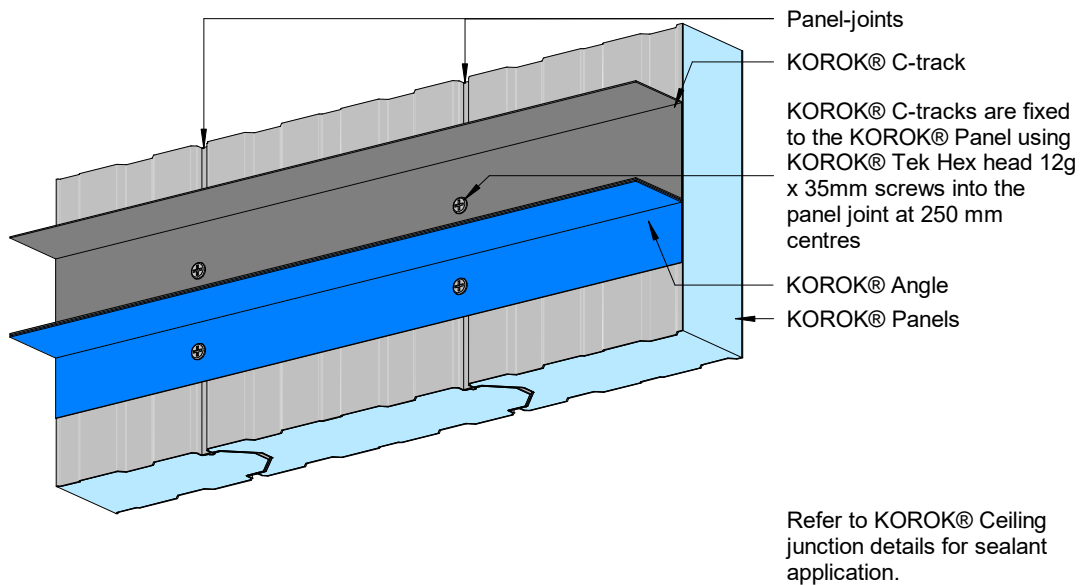
Library ref: KOROK_Ceiling_KCS_022a

ADDITIONAL RESOURCES

C-TRACK & ANGLE FIXING TO VERTICAL KOROK® WALL



KOROK® Twin Angle fixing to Vertical KOROK® Wall Panel Joints

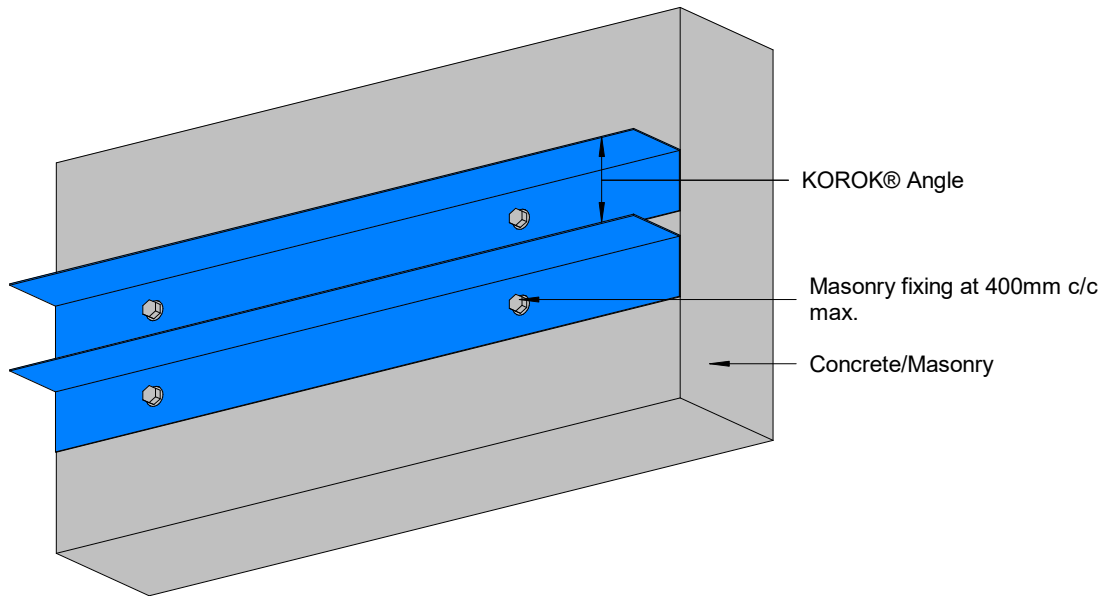


KOROK® C-track and Angle fixing to Vertical KOROK® Wall Panel Joints

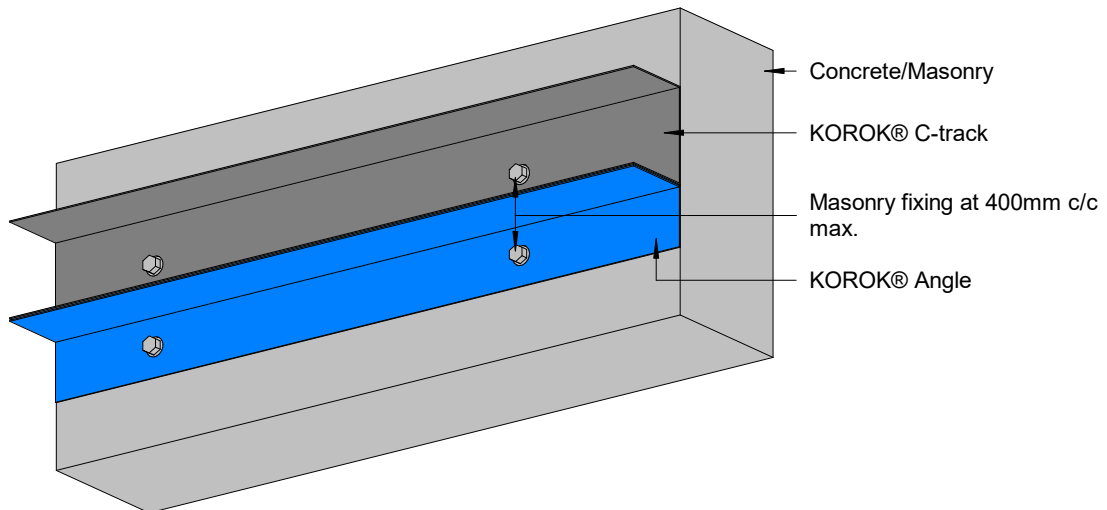
Library ref: KOROK_Ceiling_KCS_023a

ADDITIONAL RESOURCES

C-TRACK & ANGLE FIXING TO CONCRETE/MASONRY WALL



KOROK® Twin Angle fixing to Concrete/Masonry

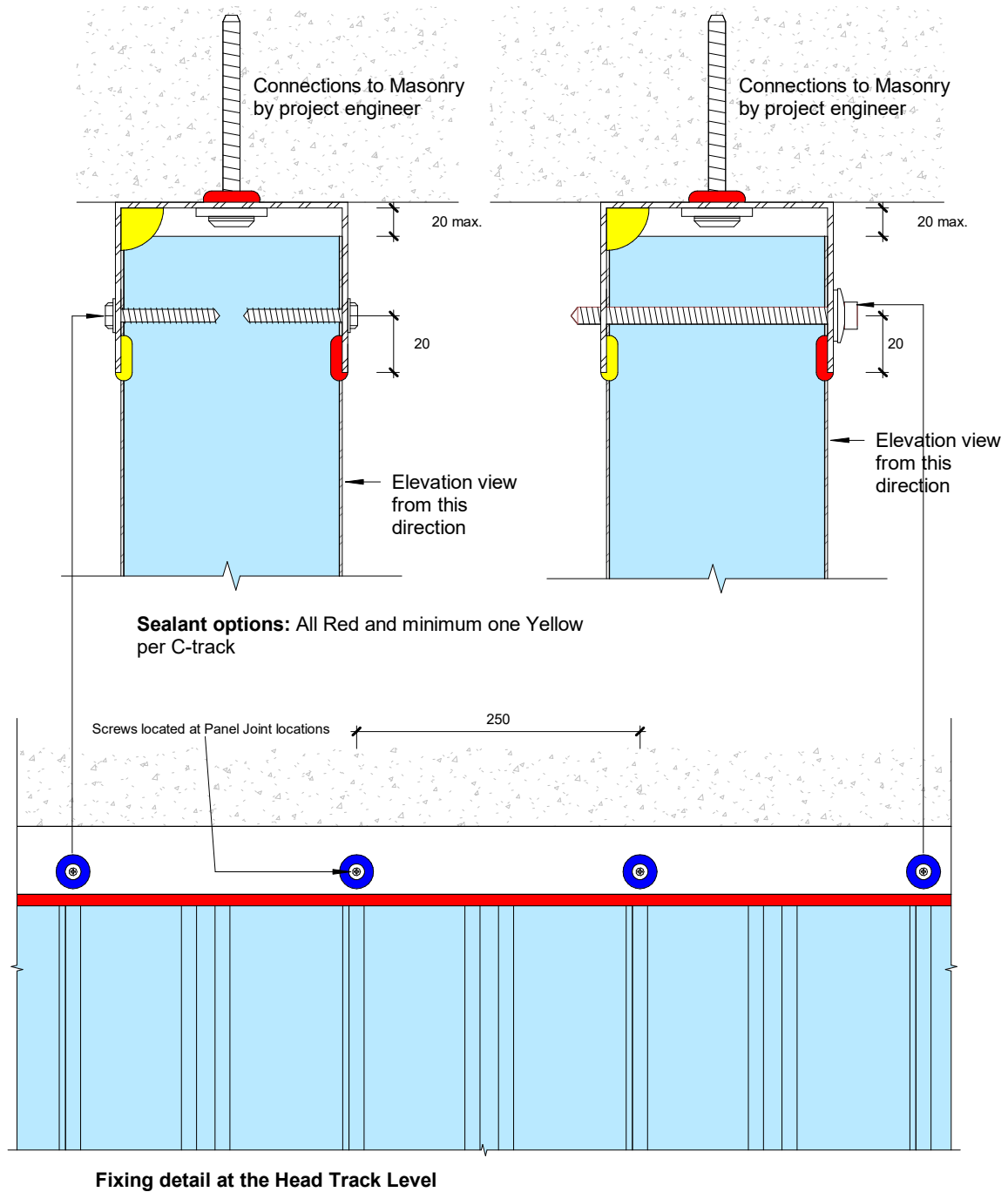


KOROK® C-track and Angle fixing to Concrete/Masonry

Library ref: KOROK_Ceiling_KCS_023c

ADDITIONAL RESOURCES

FIXING DETAIL AT THE HEAD TRACK LEVEL

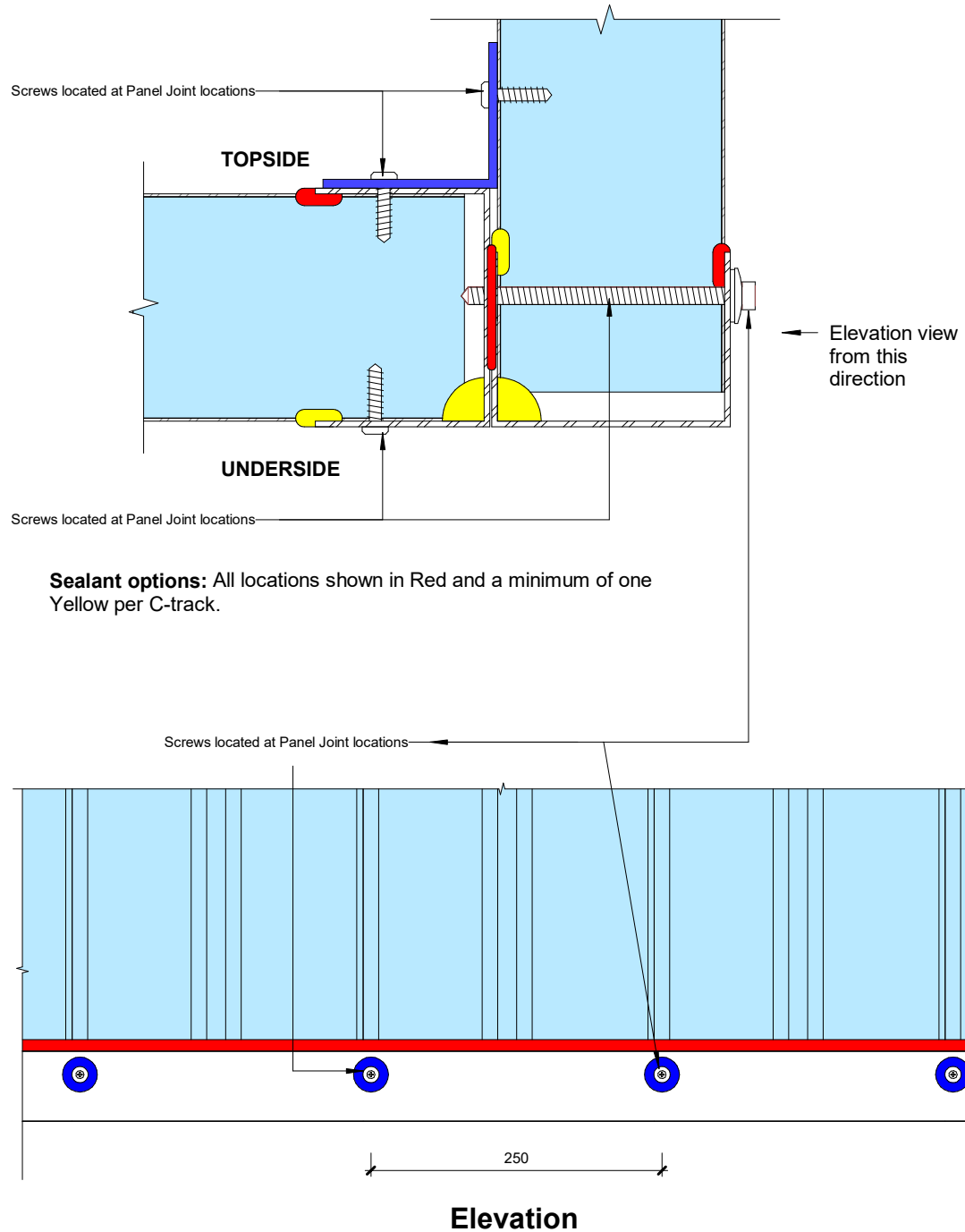


Elevation

Library ref: KOROK_Ceiling_KCS_025

ADDITIONAL RESOURCES

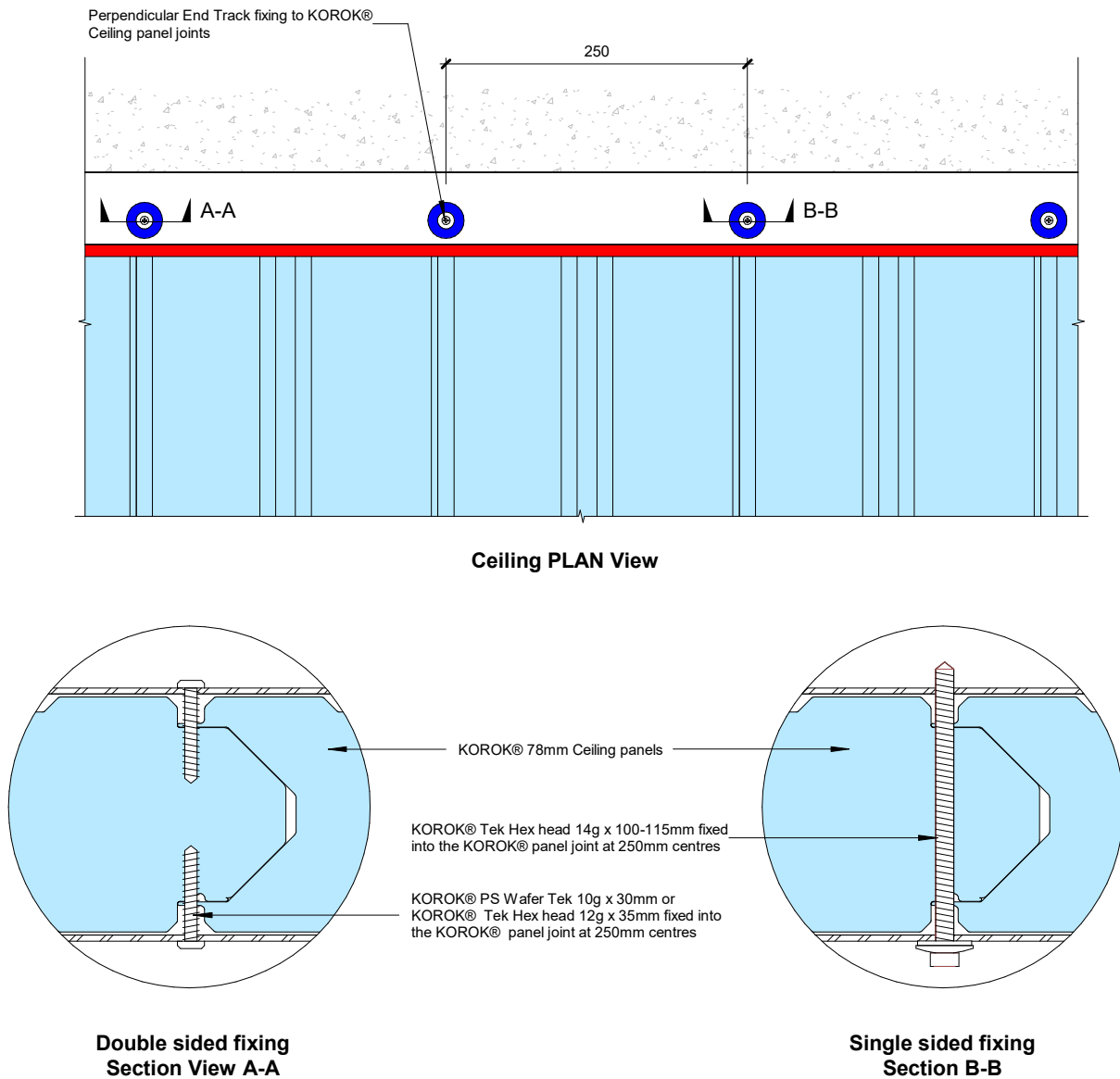
FIXING DETAIL AT CEILING TO SUSPENDED KOROK® WALL CONNECTION



Library ref: KOROK_Ceiling_KCS_026

ADDITIONAL RESOURCES

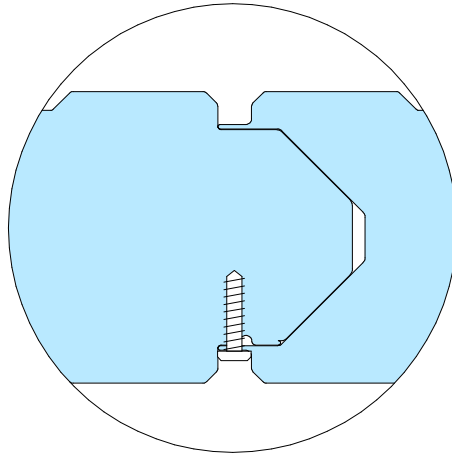
KOROK® PERPENDICULAR END TRACK FIXING TO THE KOROK® CEILING PANEL JOINTS



Library ref: KOROK_Ceiling_KCS_026a

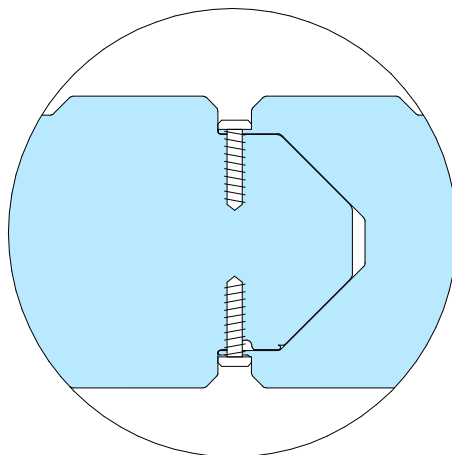
ADDITIONAL RESOURCES

CEILING PANEL-TO-PANEL FIXING OPTIONS



**Typical
Panel-to-panel joint fixing**

KOROK® PS Wafer Tek 10g x 16mm or 10g x 30mm,
fixed from the underside into the panel joint.

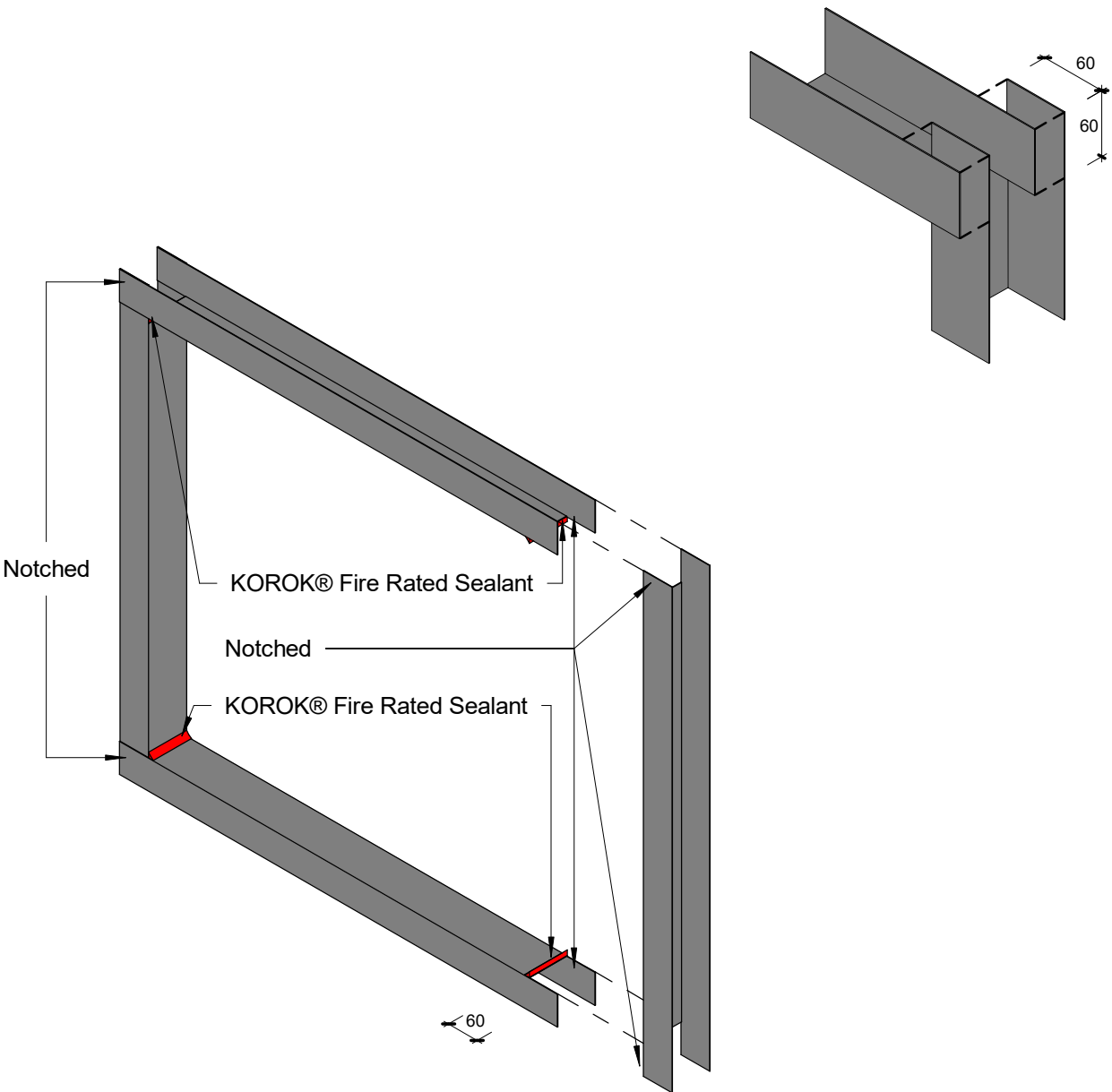


**Aperture Perimeter
Panel-to-panel joint fixing**

KOROK® PS Wafer Tek 10g x 16mm or
10g x 30mm, fixed from both topside and
underside into the panel joint around the
aperture.

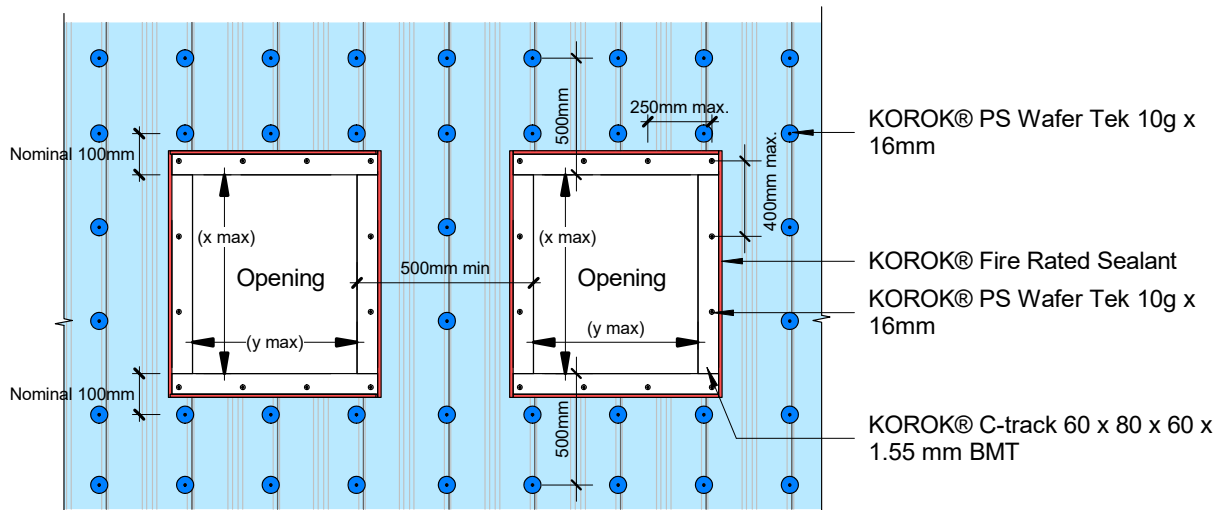
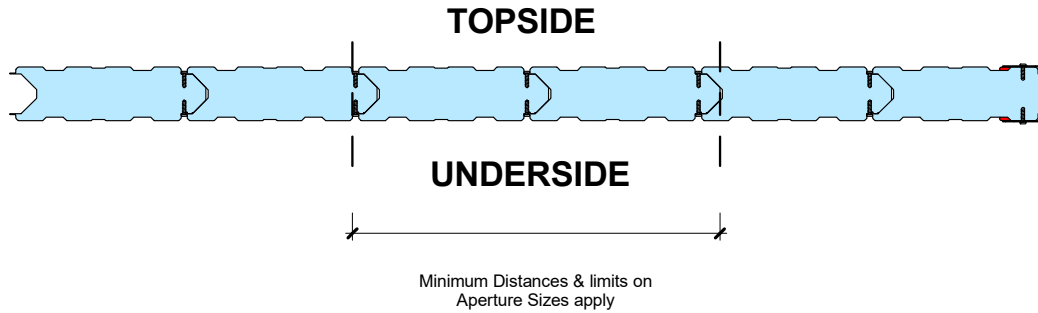
ADDITIONAL RESOURCES

FRAME THE APERTURE C-TRACK 3D



ADDITIONAL RESOURCES

CEILING APERTURES FOR KOROK® ACCESS PANELS



Max opening area: 0.432 m²

(x max) 900mm Maximum length parallel to panel

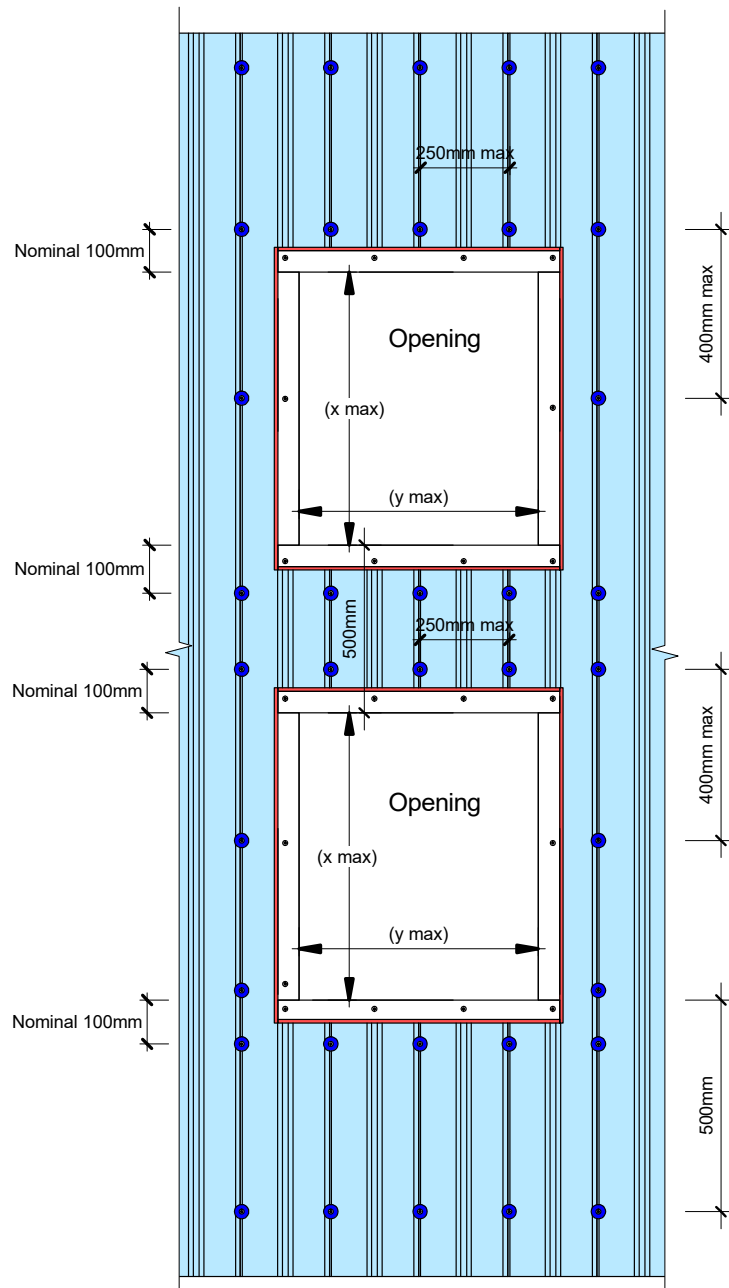
(y max) 750mm Maximum width perpendicular to panel.

Provide panel joint fixings on both sides of the ceiling, extending a minimum of 500mm from the opening edge in all directions.

Top-side screw fixings are applied after installing the opening C-track.

ADDITIONAL RESOURCES

CEILING APERTURES FOR KOROK® ACCESS PANELS



Panel joints fixings to be placed as per the following figure on both sides of the ceiling for at least 500 mm from the aperture opening in either directions.

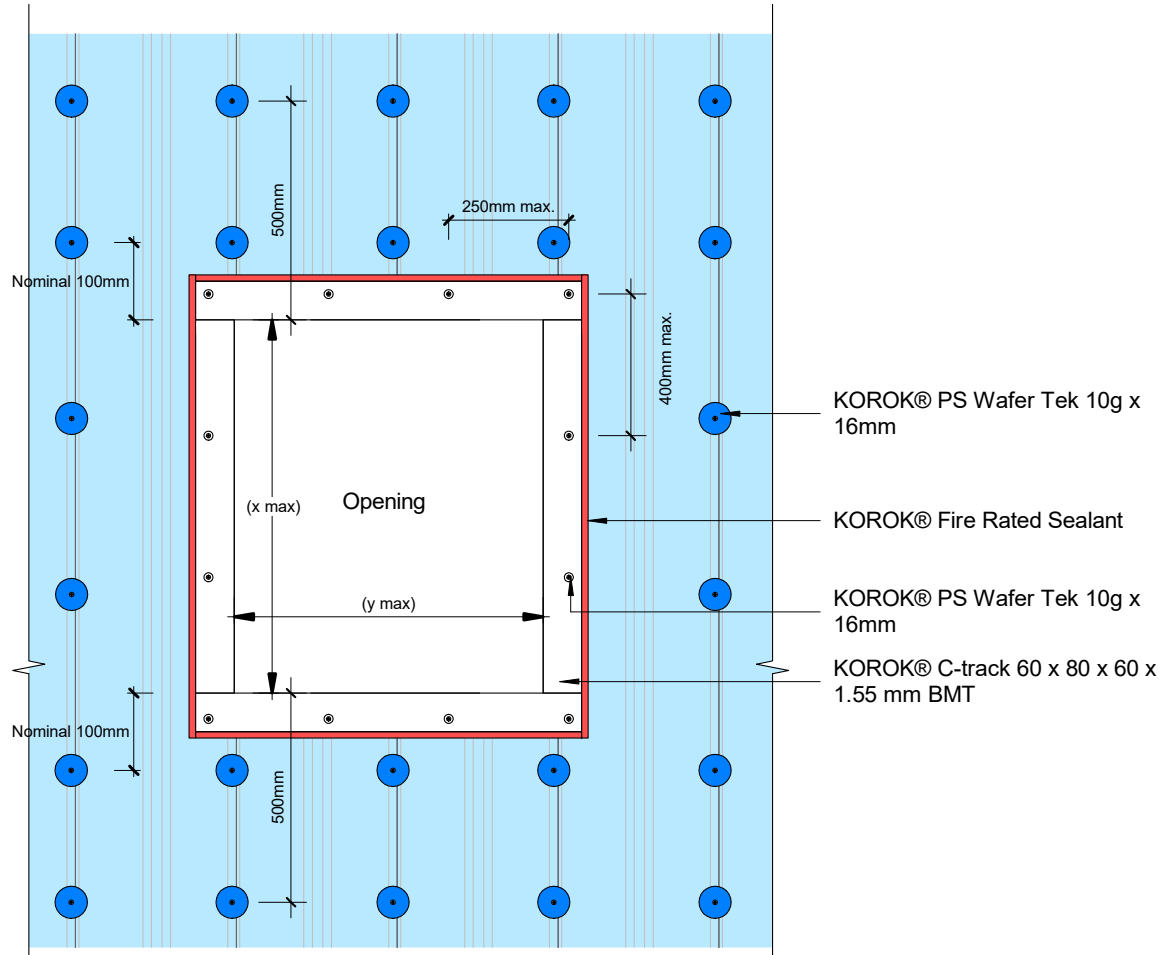
Max opening area: 0.432 m²

(x max) 900mm Maximum length parallel to panel

(y max) 750mm Maximum width perpendicular to the panel

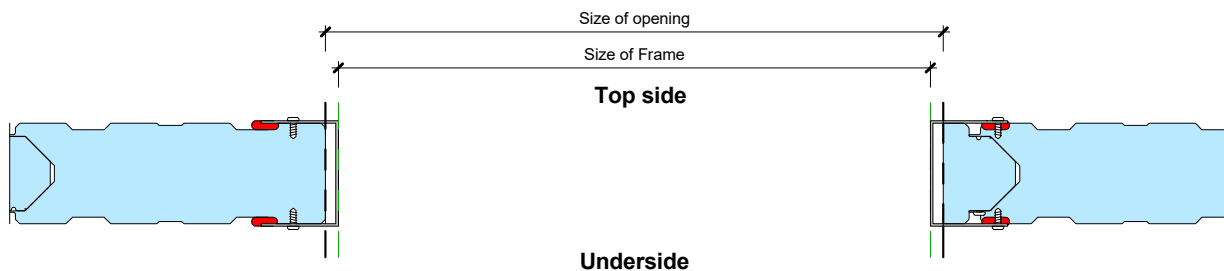
ADDITIONAL RESOURCES

CEILING APERTURES FOR KOROK® ACCESS PANELS



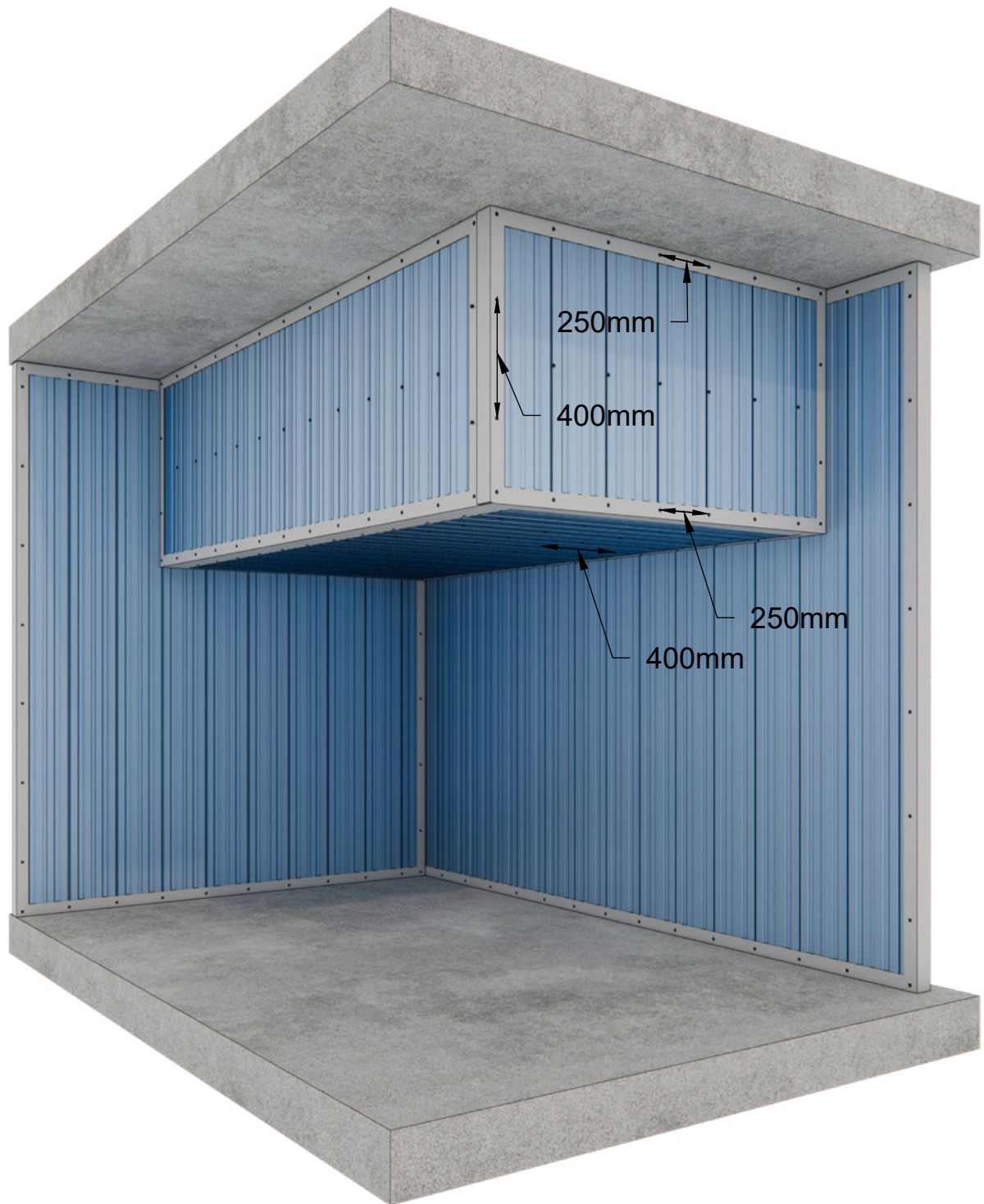
Max opening area: 0.432 m²
 (x max) 900mm Maximum length parallel to panel
 (y max) 750mm Maximum width perpendicular to the panel.

Provide panel joint fixings on both sides of the ceiling, extending a minimum of 500mm from the opening edge in all directions.
 Top side screw fixings are applied after the opening C-track Installation.



ADDITIONAL RESOURCES

INSTALLATION FIXINGS



Library ref: KOROK_Ceiling_KCS_041



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