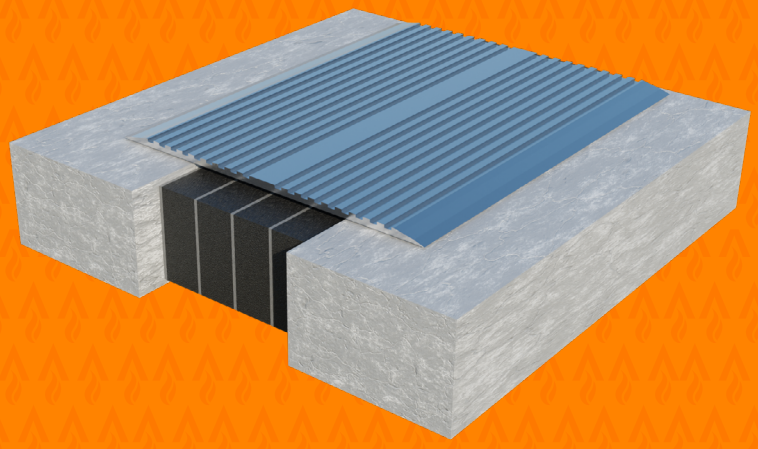
TRAFALGAR FIRE

RYANSPAN



CONTROL AND EXPANSION JOINTS

Control, movement or expansion joints are an important part of good building practice. They are used to allow for movement and expansion and stop unsightly cracking. When we incorporate a control joint into fire rated walls or fire rated floor slabs, these control joints must incorporate fire rated materials to provide an as tested fire rated control joint System.

SEISMIC TESTED

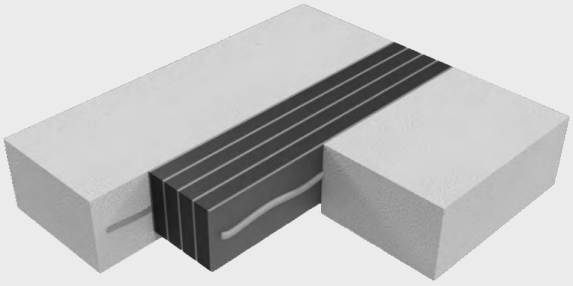
NCC 2022 READY

KEY FEATURES

- High movement capabilities
- Min 50% compression & recovery
- Fast clean & easy
- Friction fit and bed on fire sealant\
- Joint up to 150mm
- For use in floors and walls
- CLT (timber barrier) fire testing
- External & internal use
- Good acoustic performance
- AS1530 Part 4 – 2014 fire testing
- AS4071 Part 1 compliance
- NCC2022 ready

APPLICATIONS

Ryan Span is suitable for use within construction joints and voids that require a high degree of flexible movement and fire resistance. Ryan Span can be installed both vertically and horizontally.



TRADES

BUILDERS

WALL CONTRACTORS

PLASTERERS

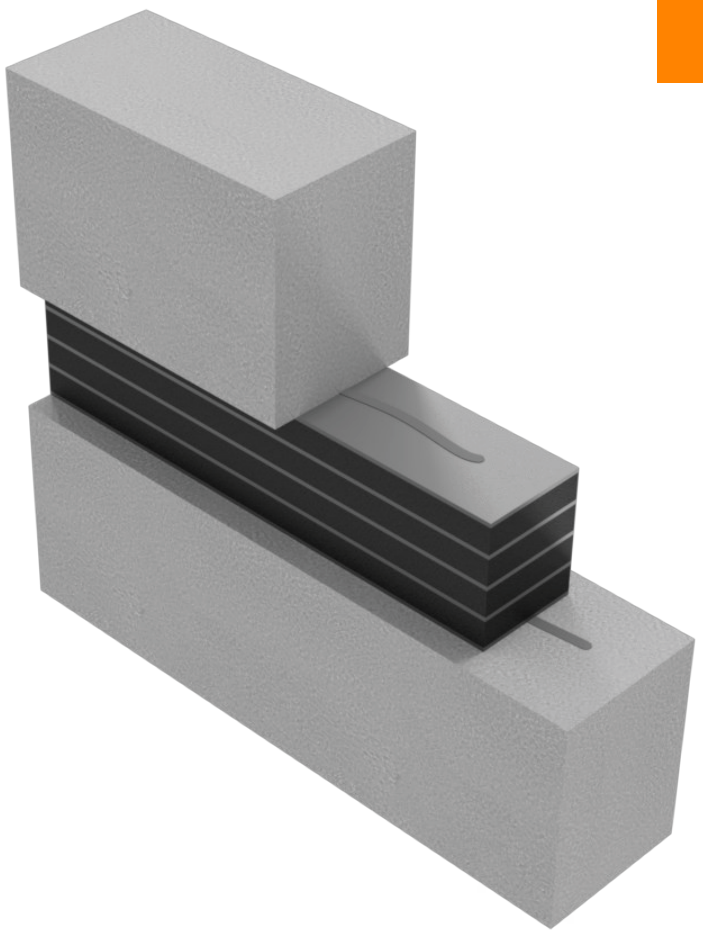
PASSIVE FIRE PROFESSIONALS

TABLE OF CONTENTS

BENEFITS - CONTROL JOINTS

WHAT ARE CONTROL JOINTS ?

Control, movement or expansion joints are an important part of good building practice. They are used to allow for movement and expansion and stop unsightly cracking. When we integrate a control joint into fire rated walls or fire rated floor slabs, these control joints must incorporate fire rated materials to provide an as tested fire rated control joint System. Fire rated control joints like, one would expect, need to be fire tested to show that they will not reduce the FRL of the wall or floor slab they are being used in. Fire testing incorporating control joints must be conducted for all different wall types and floor slab types and thicknesses, and of course, with different joint widths to provide the requisite fire test reports for NCC compliance. The fires test prove that the control joint will not crack or shrink, and will stick to the substrate during real fire conditions, and prevent the passage of flames and hot gases, and equally will not get too hot on the surface of the joint on the cold or non-fire side of each fire test.



COMPLIANCE

The FRL, commonly incorrectly referred to as the fire rating, provides a measure of time for both the integrity of the control joint in fire conditions (ability to resist hot gases or ignition) and the high temperature insulation properties of the control joint; that is its ability to insulate the joint from the 1000 Degree plus temperature of the fire, and maintain temperatures on the non-fire or non-exposed surface below a temperature rise of 180 deg C. A so called one hour fire rating, which we often hear spoken of, is in fact for regulatory purposes and the NCC, an FRL of-/60/60; that is from an actual fire test to AS1530 Part 4, the joint in question, and the fire rated sealing material, for the given width of joint and depth of material used, and just as importantly the orientation it is installed, (one sided, or two sided application), successfully provided both integrity and insulation during the fire test, in the given wall or floor type being fire tested for at least 60 minutes duration. Similarly, a two hour fire rating would be an FRL of-/120/120.

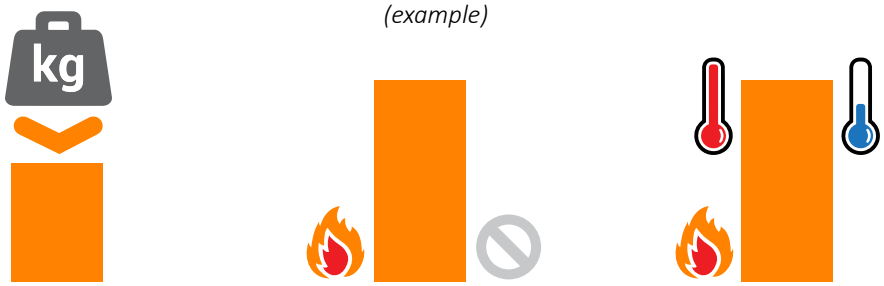
FIRE RESISTANCE LEVEL

FIRE RATING – HOW IS FIRE PERFORMANCE MEASURED?

An FRL (fire resistance level) is a handy way of summarising the performance of a building element. It consists of 3 numbers, all given in minutes:

FRL 240/240/240

(example)



Structural Adequacy

The ability of the building element to support the weight of adjacent building elements.

ie: a brick wall supporting a concrete floor slab above.

Integrity

The ability of an element to prevent the passage of flames and hot gasses.

ie: a plasterboard wall remaining intact and not allowing holes to form.

Insulation

The ability of an element to resist heat transfer from the exposed face to the unexposed face.

ie: a copper pipe remaining below a set temperature limit on the unexposed side of the wall penetration system.

INTEGRITY

The Ryan Span system will achieve the integrity performance for up to 2 hours physically stopping the direct spread of fire, however the insulation performance of the penetration will be limited to the type of wall being used and conductivity of the services in the Control Joint.

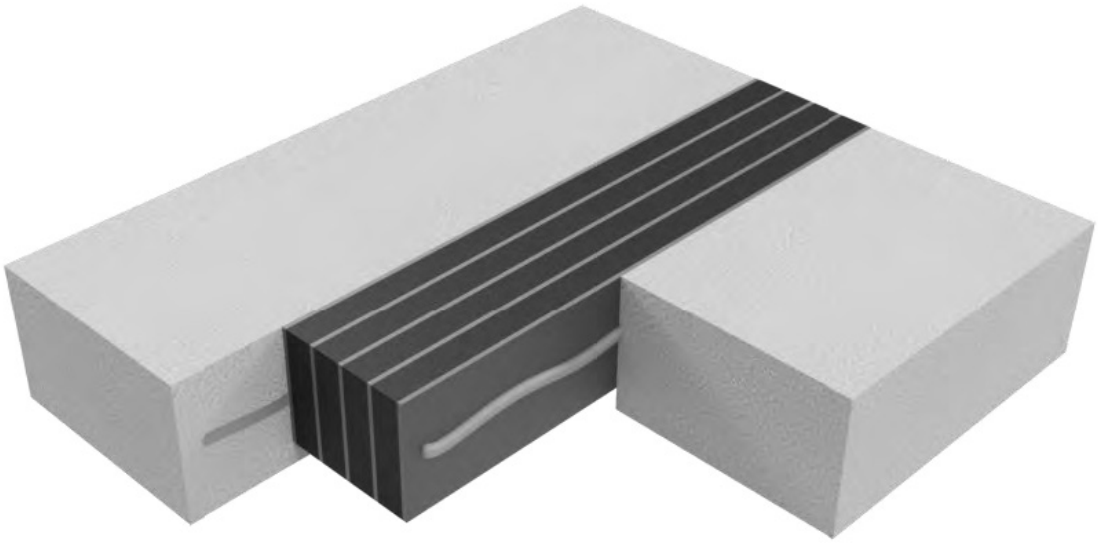
INSULATION (TEMPERATURE RISE)

Heat rise via conduction will occur through all parts of the system, Ryan Span is able to maintain its insulation performance under fire conditions in all common wall and floor types.

BENEFITS - RYAN SPAN & RYAN SPAN PRO

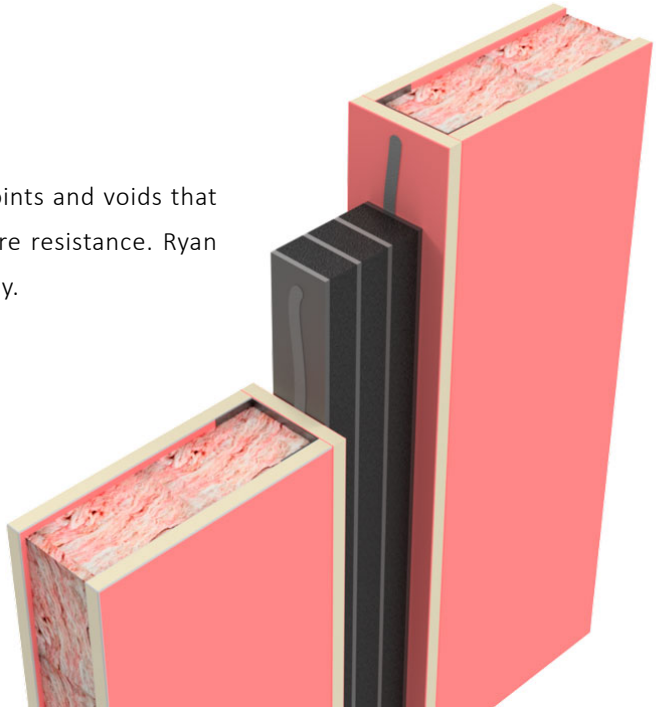
WHAT IS Ryan Span?

Ryan Span is a very pliable laminated strip consisting of multiple layers of intumescent graphite sandwiched between layers of combustion modified foam. Ryan Span provides a high level of movement and is suitable for larger gaps up to 100mm and provides up to 2 hours fire protection. It is a quick and easy solution to install with minimal mess and clean-up.



APPLICATIONS

Ryan Span is suitable for use within construction joints and voids that require a high degree of flexible movement and fire resistance. Ryan Span can be installed both vertically and horizontally.



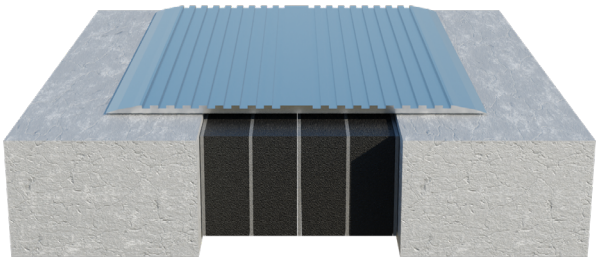
BENEFITS - RYAN SPAN & RYAN SPAN PRO

RYANSPAN

INDEPENDENT TESTING

Ryan Span has many independent tests; some include:

- **Fire** AS1530.4:2014, AS4072.1:2005
- **Acoustic** ISO 10140-2
- **Environmental** ASTM-B117:2011



PRODUCT SPECIFICATIONS

Joint Size	Product Code	Dimensions
10 to 25mm	Ryan Span- 25	25mm x 25mm x 1m
40to 75mm	Ryan Span- 50	50mm x 50mm x 1m
40-75mm	Ryan Span- 75	75mm x 50mm x 1m
76-100mm	Ryan Span- 100	100mm x 100mm x 1m
101-150mm	Ryan Span- 150	150mm x 100mm x 1m

FIRE RATED

SMOKE SEAL

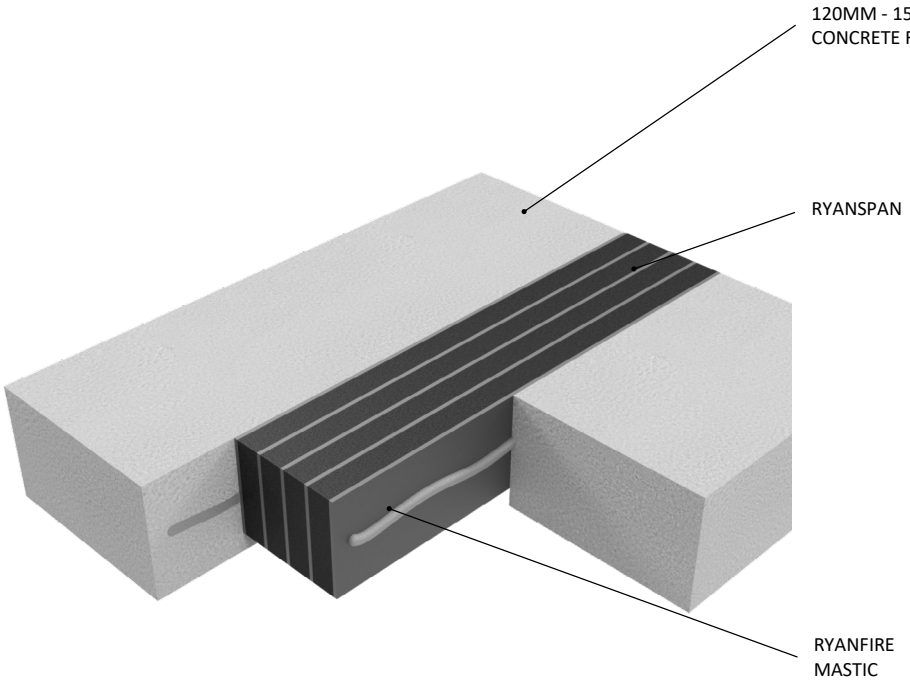
ACOUSTIC SEAL

sustainable

NCC 2022 READY

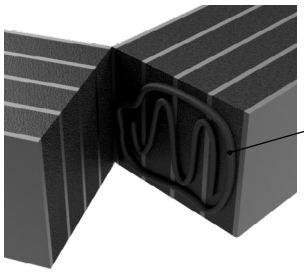
INSTALLATION

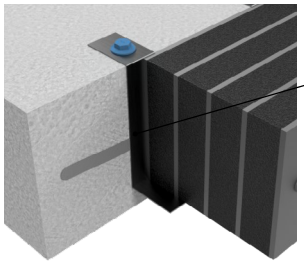
CONCRETE FLOOR SLABS



INSTALLATION INSTRUCTIONS

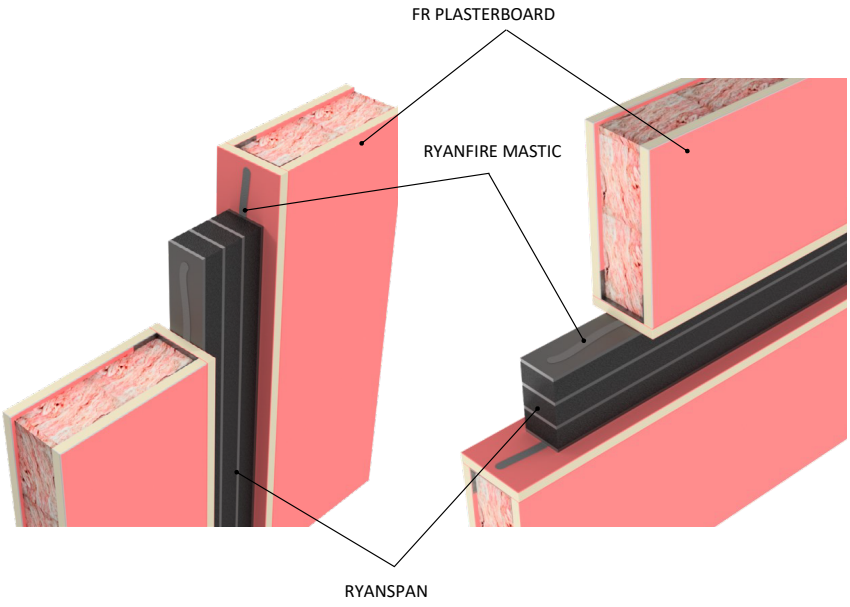
1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. INSERT THE RYANSPAN INTO THE VOID TO SIT FLUSH WITH THE SURFACE OF THE FLOOR. ENSURE THE RYANSPAN SITS TIGHTLY WITHIN THE GAP.
3. APPLY A BEAD (NOMINALLY 5MM) OF RYANFIRE MASTIC AROUND THE EDGES OF THE APERTURE.
4. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.
5. RYANSPAN 150 REQUIRES Z CLIPS. INSTALL THE Z CLIPS USING 10G X 32MM CONCRETE ANCHORS, 50MM FROM EACH EDGE, AND AT CENTRES NOT EXCEEDING 200MM.





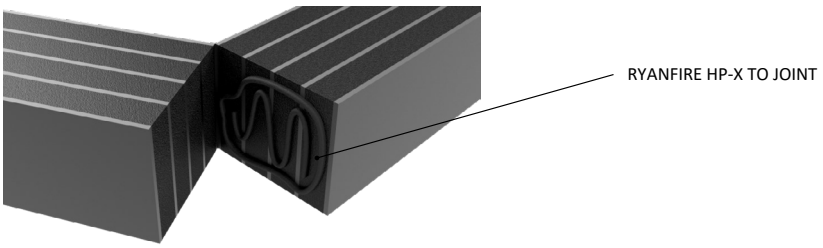
INSTALLATION

PLASTERBOARD WALLS



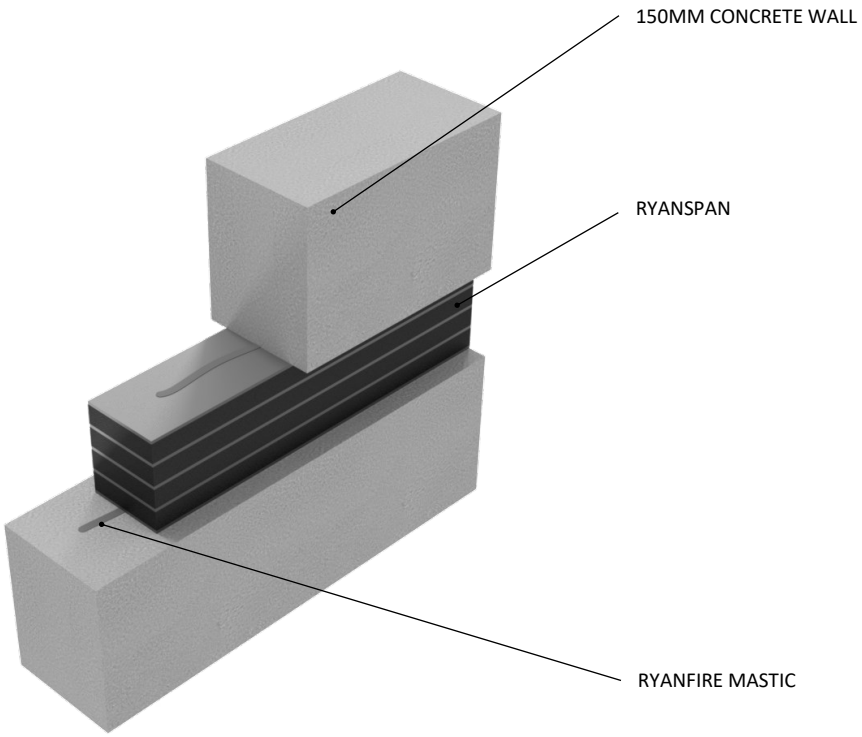
INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. THE APERTURE MUST BE FULLY LINED.
3. APPLY A BEAD OF RYANFIRE MASTIC TO THE INTERNAL LINING OF THE APERTURE.
4. SELECT THE CORRECT WIDTH OF RYANSPAN REQUIRED FOR THE GAP.
5. COMPRESS THE RYANSPAN AND FIT CENTRALLY WITHIN THE GAP.
6. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.



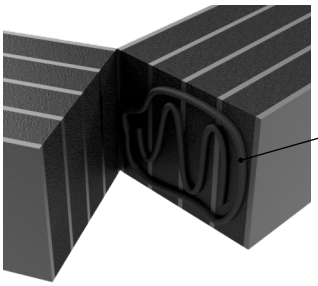
INSTALLATION

CONCRETE & MASONRY WALLS



INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. APPLY A BEAD (NOMINALLY 5MM) OF RYANFIRE MASTIC CENTRALLY, ON EACH SURFACE OF THE GAP.
3. SELECT THE CORRECT SIZE OF RYANSPAN REQUIRED FOR THE GAP.
4. COMPRESS AND INSERT THE RYANSPAN INTO THE VOID TO SIT CENTRALLY WITHIN THE PLANE OF THE WALL. ENSURE THE RYANSPAN SITS TIGHTLY WITHIN THE GAP.
5. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.



SYSTEM RANGE

RYANFIRE MASTIC

Colour	Light Grey
Appearance	Viscous paste
Packaging	600ml foil sausages (gun grade) 5kg pails (brush grade)
Density	1.57 g/ml
Acoustic	Composite STC 63 (base wall STC 67, 35mm gap), ISO 10140-2 Composite STC 55 (base wall STC 55, 35mm gap), ISO 10140-2
VOC	97 g/l (SCAQMD Method 304-91)

RYANFIRE HP-X

Colour	Dark Grey
Appearance	Viscous paste
Packaging	310ml cartridges
Density	1.52 g/ml
VOC	18 g/l (SCAQMD Method 304-91)

FAQ

Q Do I need any sealant to install these products?

A Ryan span needs a bead of RyanFire HP-X between the barrier and the joint seal along both sides, and at the butt joint between lengths.

Q Why can't I just use a conventional fire sealant

A Ryan Span provideS joint seals for much greater joint widths, and can accommodate a large amount of building movement.

Q What lengths to do the Ryan Span systems come in?

A Ryan Span and Ryan Span Pro come in 1 meter lengths.

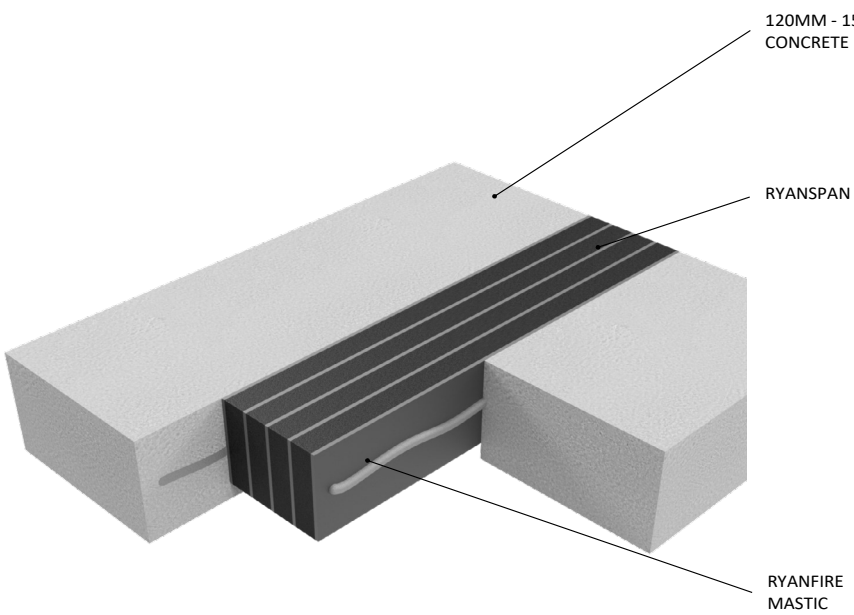
Q What movement can Ryan Span accommodate?

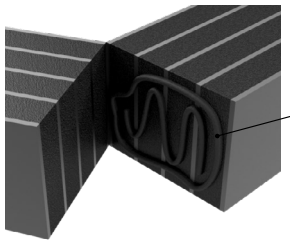
A Min 50% compression & recovery.

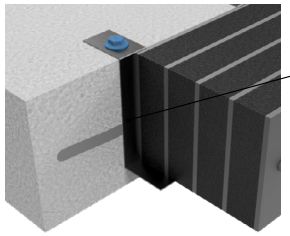
Q Can Ryan Span be used outside in a car park?

A Yes, install a trafficable aluminium cover plate over the joint on top of the slab. Ryan Span has undergone rigorous salt spray weathering tests, and the material will still provide the fire requirements.

SOCIAL MEDIA







INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. INSERT THE RYANSPAN INTO THE VOID TO SIT FLUSH WITH THE SURFACE OF THE FLOOR. ENSURE THE RYANSPAN SITS TIGHTLY WITHIN THE GAP.
3. APPLY A BEAD (NOMINALLY 5MM) OF RYANFIRE MASTIC AROUND THE EDGES OF THE APERTURE.
4. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.
5. RYANSPAN 150 REQUIRES Z CLIPS. INSTALL THE Z CLIPS USING 10G X 32MM CONCRETE ANCHORS, 50MM FROM EACH EDGE, AND AT CENTRES NOT EXCEEDING 200MM.

Products: **RYANSPAN**
RYANFIRE MASTIC
RYANFIRE HP-X
Approvals: **AS 1530.4/AS 4072.1**
BK: **99 / 164 / 203**
Ref: **21SFR00049 / 22SFR00052 / 23SFR00019**
ID: **A - C / C / A - C**

Scenario: Linear gap seal to concrete floor

Construction: 120 - 150mm thick concrete floor

Void Size: Up to 150mm wide, unlimited length

	Fire Resistance		
	120mm floor	125mm floor	150mm floor
Ryanspan 50	-/60/60	-/60/60	-/90/60
Ryanspan 75	-/60/60	-/60/60	-/120/120
Ryanspan 100	-/60/60	-/60/60	-/120/120
Ryanspan 150*		-/90/90	-/90/90

*** Z clips are required for Ryanspan 150**

RYANFIRE PASSIVE FIRE PROTECTION

RYANFIRE Technical Support:
info@ryanfire.co.nz - Tel 09 443 0362

Drawing Title

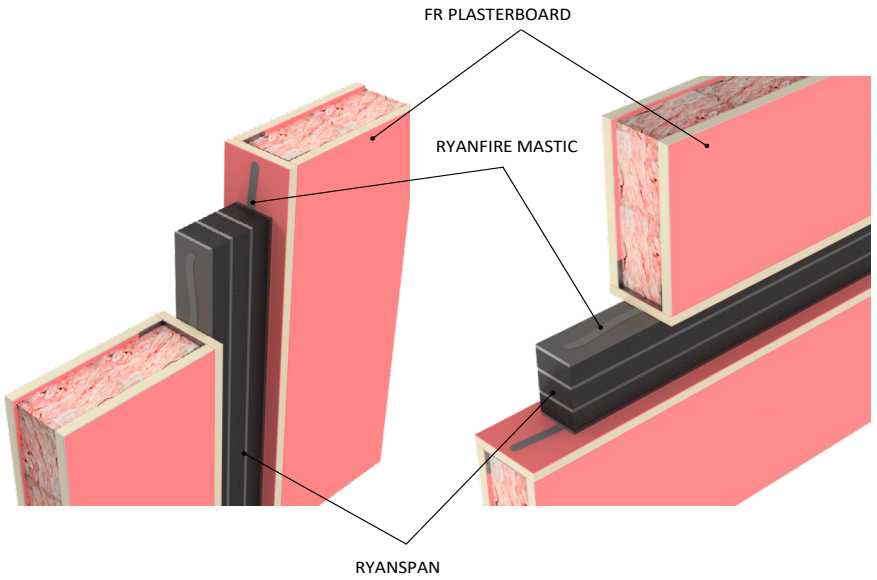
Ryanspan slab edge/floor seal 120 - 150mm concrete floor

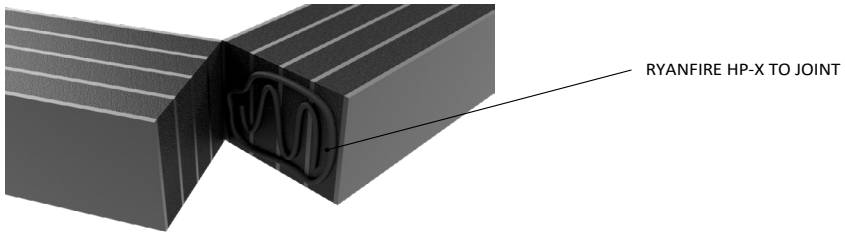
Scale	Date
NTS	September 2023

Drawing Number	Rev
V52.1	5.0

INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. THE APERTURE MUST BE FULLY LINED.
3. APPLY A BEAD OF RYANFIRE MASTIC TO THE INTERNAL LINING OF THE APERTURE.
4. SELECT THE CORRECT WIDTH OF RYANSPAN REQUIRED FOR THE GAP.
5. COMPRESS THE RYANSPAN AND FIT CENTRALLY WITHIN THE GAP.
6. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.





Products: RYANSPAN
RYANFIRE MASTIC
RYANFIRE HP-X
Approvals: AS 1530.4/AS 4072.1
BK: 82 / 118 / 121 / 137
Ref: 22SFR00013 / 22SFR00023 / 22SFR00032
ID: A, B / C, D / A, C, E
Scenario: Vertical linear gap seal
Construction: 102mm FR Plasterboard / Masonry wall
Fully lined aperture
Void Size: Up to 100mm wide

Fire Resistance:

Gap	Vertical	Horizontal
25mm	-/120/90	
50mm	-/120/90	-/120/90
75mm	-/120/90	-/120/90
100mm	-/90/90	-/90/90

Web based drawings are for example only. Fire performance of any system is dependant on, but not limited to size of opening, substrate, if penetrations are passing through, type, size and number. Please refer to Ryanfire technical department for detailed and specific fire performance information.

RYANFIRE PASSIVE FIRE PROTECTION

Client

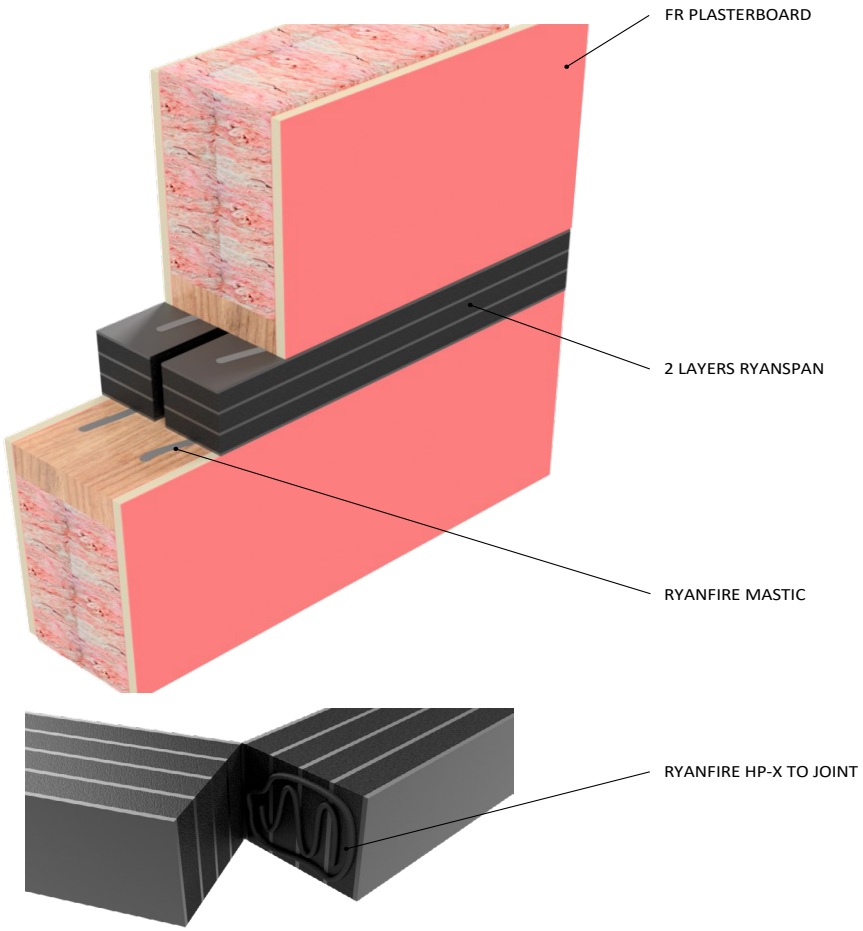
Job Title

Drawing Title

Ryanspan linear gap seal 102mm plasterboard wall

Scale	Date
NTS	July 2024
Sheet Size: A3	Drawn By
Drawing Number: V67.1	Rev: 5.0

RYANFIRE Technical Support: info@ryanfire.co.nz - Tel: 09 443 0362



INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. APPLY A BEAD OF RYANFIRE MASTIC TO THE INTERNAL EDGES OF THE APERTURE.
3. SELECT THE CORRECT WIDTH OF RYANSPAN REQUIRED FOR THE GAP.
4. COMPRESS THE RYANSPAN AND FIT IT WITHIN THE GAP TO SIT FLUSH WITH THE SURFACE OF THE WALL.
5. REPEAT THIS PROCESS TO THE OPPOSITE SIDE OF THE WALL.
6. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.

Products:	**RYANSPAN** **RYANFIRE MASTIC** **RYANFIRE HP-X**
Approvals:	**AS 1530.4/AS 4072.1**
BK:	**222**
Ref:	**22SFR00048**
ID:	**B, C**
Scenario:	Horizontal linear gap seal
Construction:	166mm FR Plasterboard / Masonry wall
Void Size:	Up to 75mm wide
Fire Integrity:	60 minutes
Fire Insulation:	60 minutes

Web based drawings are for example only. Fire performance of any system is dependant on, but not limited to size of opening, substrate, if penetrations are passing through, type, size and number. Please refer to Ryanfire technical department for detailed and specific fire performance information.

RYANFIRE PASSIVE FIRE PROTECTION

RYANFIRE Technical Support:
info@ryanfire.co.nz - Tel 09 443 0362

Drawing Title

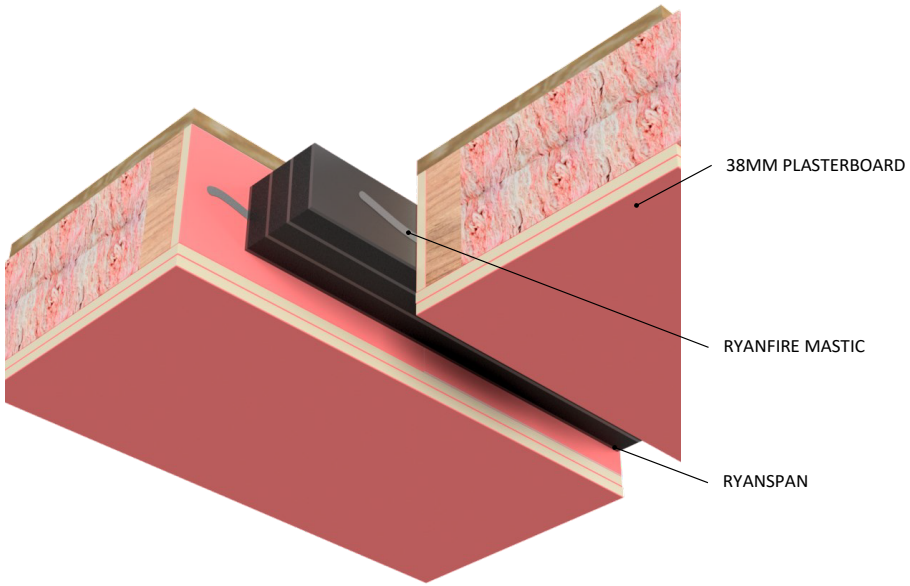
Ryanspan horizontal linear gap seal 166mm plasterboard wall

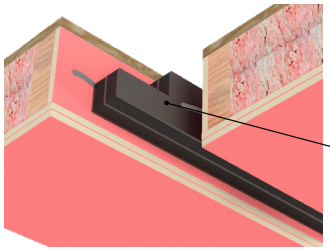
Scale	Date
NTS	**July 2024**

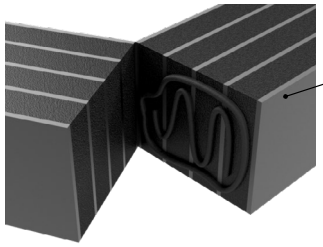
Drawing Number	Rev
V67.8	**2.0**

INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. THE APERTURE MUST BE FULLY FRAMED AND LINED.
3. APPLY A BEAD OF RYANFIRE MASTIC TO THE INTERNAL FACES OF THE APERTURE.
4. SELECT THE CORRECT WIDTH OF RYANSPAN REQUIRED FOR THE GAP.
5. COMPRESS THE RYANSPAN AND FIT IT WITHIN THE GAP TO SIT CENTRALLY WITHIN THE GAP.
6. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.
7. WHEN 50MM RYANSPAN IS REQUIRED, 2 LAYERS ARE REQUIRED. JOINTS MUST BE STAGGERED BY A MINIMUM OF 200MM







Products:	**RYANSPAN** **RYANFIRE MASTIC** **RYANFIRE HP-X**
Approvals:	**AS 1530.4/AS 4072.1**
BK:	**237**
Ref:	**23SFR00071**
ID:	**A - C**
Scenario:	Linear gap seal
Construction:	Min 38mm thick FR plasterboard ceiling
Void Size:	Up to 100mm wide
Fire Integrity:	120 minutes
Fire Insulation:	120 minutes

Note that using the 50mm Ryanspan requires 2 layers.

Web based drawings are for example only. Fire performance of any system is dependant on, but not limited to size of opening, substrate, if penetrations are passing through, type, size and number. Please refer to Ryanfire technical department for detailed and specific fire performance information.

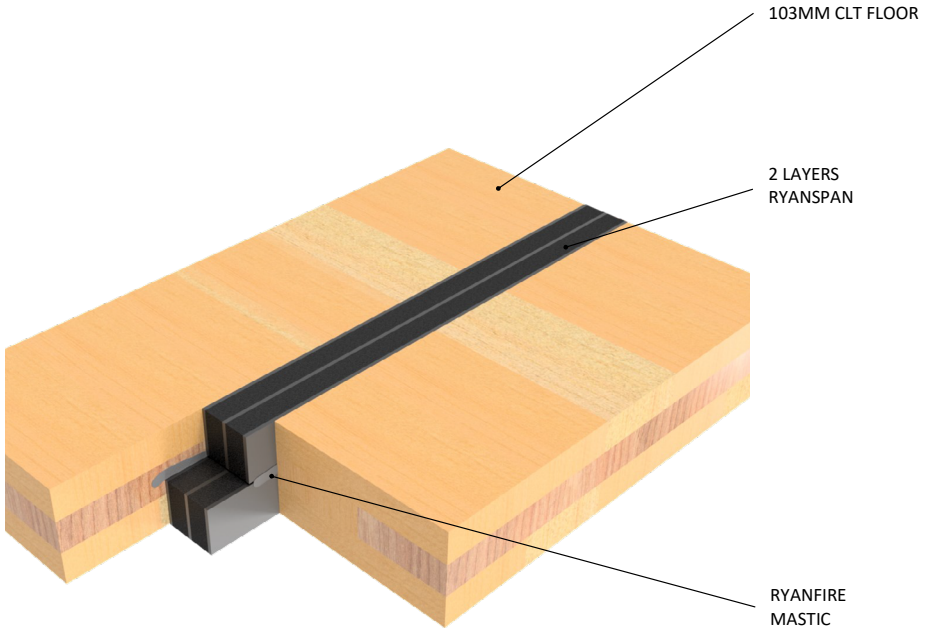
RYANFIRE PASSIVE FIRE PROTECTION

RYANFIRE Technical Support:
info@ryanfire.co.nz - Tel 09 443 0362

Drawing Title
Ryanspan linear gap seal 38mm plasterboard ceiling

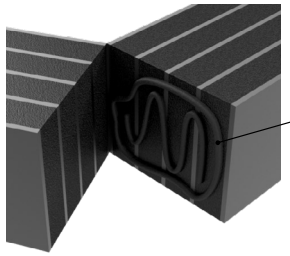
Scale	Date
NTS	**July 2024**

Drawing Number	Rev
V67.11	**2.0**



INSTALLATION INSTRUCTIONS

1. ENSURE THE APERTURE IS CLEAN AND FREE OF DUST AND DEBRIS.
2. INSERT THE FIRST LAYER OF RYANSPAN INTO THE VOID TO SIT FLUSH WITH THE BOTTOM OF THE FLOOR. ENSURE THE RYANSPAN SITS TIGHTLY WITHIN THE GAP.
3. APPLY A BEAD (NOMINALLY 5MM) OF RYANFIRE MASTIC AROUND THE EDGES OF THE CENTRE OF THE APERTURE.
4. INSERT THE SECOND LAYER OF RYANSPAN INTO THE VOID TO SIT FLUSH WITH THE TOP OF THE FLOOR. ENSURE THE RYANSPAN SITS TIGHTLY WITHIN THE GAP.
5. TO JOIN TWO PIECES OF RYANSPAN, APPLY RYANFIRE HP-X TO EACH END AND BUTT THEM UP AGAINST EACH OTHER. ENSURE A TIGHT FITTING SEAL.



Products:	**RYANSPAN** **RYANFIRE MASTIC** **RYANFIRE HP-X**
Approvals:	**AS 1530.4/AS 4072.1**
BK:	**234**
Ref:	**23SFR00075**
ID:	**B**
Scenario:	Linear gap seal to CLT floor
Construction:	103mmm Cross Laminated Timber (CLT) floor
Void Size:	Up to 50mm wide, unlimited length
Fire Integrity:	60 minutes
Fire Insulation:	60 minutes

Web based drawings are for example only. Fire performance of any system is dependant on, but not limited to size of opening, substrate, if penetrations are passing through, type, size and number. Please refer to Ryanfire technical department for detailed and specific fire performance information.

RYANFIRE PASSIVE FIRE PROTECTION

RYANFIRE Technical Support:
info@ryanfire.co.nz - Tel 09 443 0362

Drawing Title

Ryanspan slab edge/floor seal 103mm CLT floor

Scale	Date
NTS	**July 2024**

Drawing Number	Rev
V52.12	**2.0**