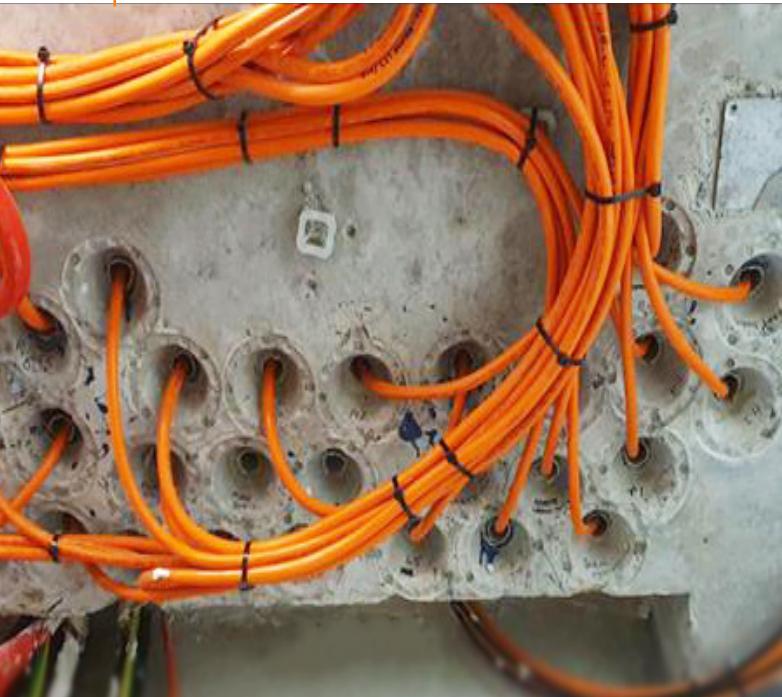


FyrePEX™ HP INTUMESCENT SEALANT FOR CAST-IN SERVICES



Cast-in conduits and other services offer several advantages to trades in sequencing, costs, and site efficiencies. Their use is increasingly common across residential and commercial construction.

FyrePEX™ HP Intumescent Sealant is approved for this type of application as a simple back-fill type install for easy and visible compliance over a range of cast-in services.



KEY FEATURES



- Fast, clean, easy
- Simple back-fill type install
- Cost effective, reduces site time
- Trafalgar Fire quality and testing
- Suitable for cast-in services for all relevant trades
- Tested and approved to AS1530.4:2014

APPLICATIONS



Plumbers

PEX-AL-PEX pipes
PEX pipes

Fire Contractors

Fire cables

Electricians

Small TPS power cables
Large 3C+E power cables
CAT comms cables
NBN cables / draw cords

TRADES

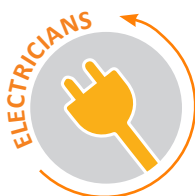


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BENEFITS

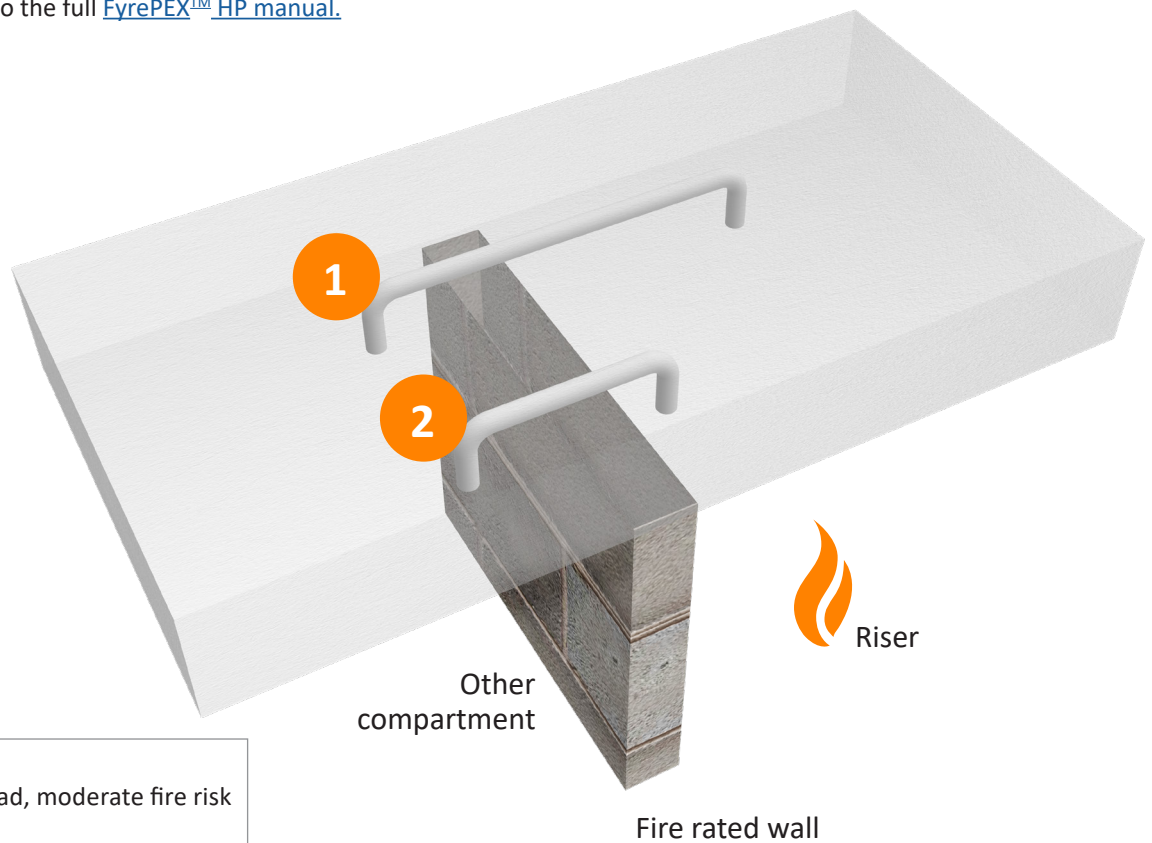


FyrePEX™ High-Performance sealant is a graphite water-based intumescent mastic sealant that is used for fire stopping of service penetrations through fire-rated walls and floors to prevent the spread of fire. The sealant expands when exposed to heat/fire so it is perfect for sealing in and around plastic pipe and conduit services that have been cast directly into a concrete floor slab.

While Trafalgar Fire can help to ensure the fire and smoke performance, the use of cast-in conduits could introduce structural weakness to the slab. It is recommended that the structural designs incorporate analysis and confirmation of the structural adequacy of the slabs before installation.

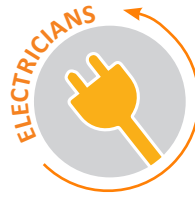
For cast-in services, installation is fast, clean and easy, with a simple backfill providing an appropriate FRL to ensure all NCC requirements are met.

This manual looks at cast-in conduit applications only, so for standard penetration systems through all approved walls and floors, please refer to the full [FyrePEX™ HP manual](#).



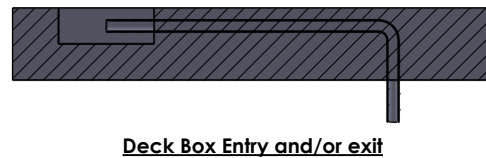
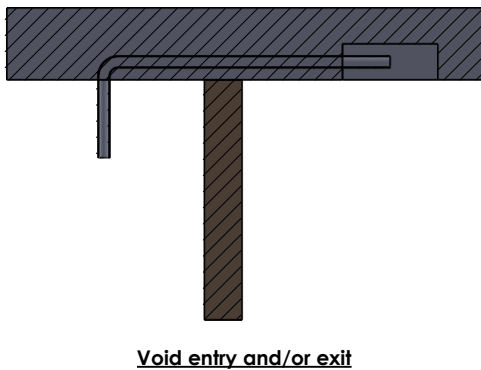
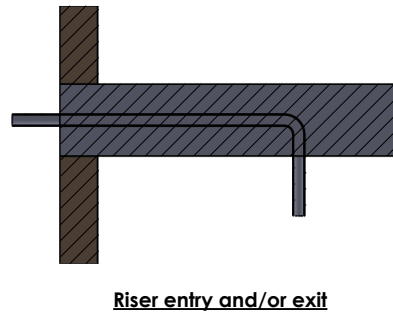
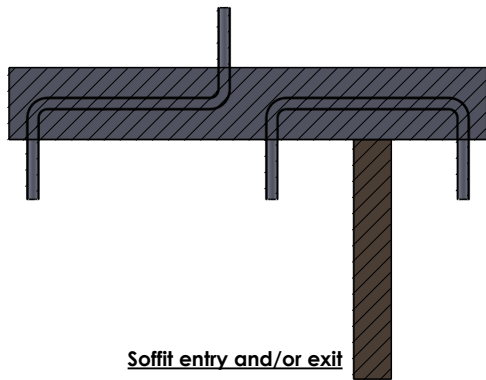
- 1 **Long conduits**
Risk of smoke spread, moderate fire risk
- 2 **Short conduits**
Risk of fire and smoke spread


APPLICATIONS



Where services are cast into concrete floors there is still a risk of fire and/or smoke spread through a building, and regardless of the distance between entry and exit, the building code (NCC) still requires passive fire protection to be installed. FyrePEXTM HP sealant is suitable for a range of installation types including:

- Soffit entry and/or exit
- Void-entry and/or exit
- Riser entry and/or exit
- Deck boxes with soffit-entry
- Short travel distances – as little as 250mm
- Conduits up to 40mm diameter
- Additional smoke seals available as an option
- Cables and draw chords
- PEX plumbing pipes



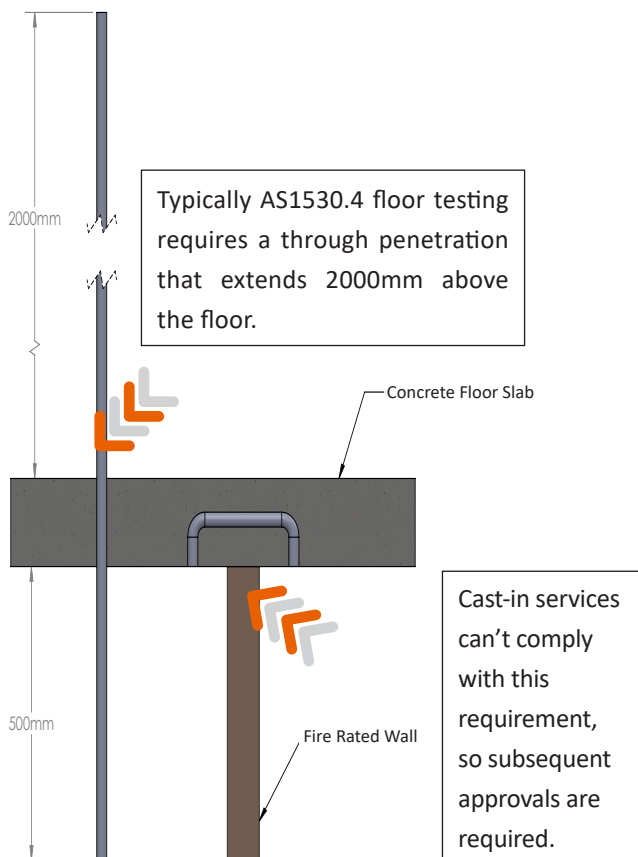
Drawing Name: Installation Configurations				Test Standard: AS1530.4	Codes:	Revision:	Date:	No.:	NOTICE:
Project Title: FyrePEX HP Sealant for Cast-in Conduits				Fire resistance level:	Drawn By: SM	<small>NOTE: ALL DIMENSIONS ARE IN MILLIMETRES (mm)</small>			
Drawing No. : 1	Sheet: 1 of 1	Date: 29/07/2021	Scale: NTS	Based on Report No.:	Checked By: JH	<input type="checkbox"/> STANDARD DRAWING	<input type="checkbox"/> PROJECT DRAWING	 <small>TRAFALGAR Head Office: PO BOX 545 Chester Hill NSW 2162 T: 1800 888 714 F: 1800 201 500 E: technical@tgroup.com.au W: www.tfire.com.au</small>	

COMPLIANCE ISSUES WITH CAST-IN SERVICES

On site, the chance of a service that has been cast into a concrete floor slab spreading a fire may be seen as low. However, this still represents an opening in a fire barrier that connects two fire compartments so the building code (NCC) requires an approved passive fire system to be used to seal these openings to maintain both fire and smoke separation.

This has previously represented an issue in the passive fire industry as fire testing to AS1530.4 typically requires a service to project 500mm into the test furnace on the underside of a concrete slab, and 2,000mm on the top side. In other words, there is no specified method to test these cast in services.

As such Trafalgar Fire have completed specialty representative fire testing using the general principles of AS1530.4-2014 to mock up several cast-in conduits and pipes with short travel distances of 250mm, with and without deck boxes and have had a subsequent assessment report written by a NATA accredited laboratory, leading to safer and more compliant buildings.



Compliance of our FyrePEXTM HP cast-in services applications is covered under Warrington Fire assessment report FAS200393, which assigns these systems an FRL and complies directly under the National Construction Code via Schedule 5.

FRL Approvals Tables

CONCRETE SLABS

Approved Service Specifications



Permissible installation types – Subject to installation requirements in on [page 7](#):

Service Types	Service Specifications	FRL	Installation Types
Empty (with or without draw cords)	Nylon/steel braid draw cords	-/120/120	<ul style="list-style-type: none"> • Riser entry • Soffit entry • Void entry • Deck box installation
TPS cables	Up to 4x cables	-/120/120	
3C+E power cables	Up to 16mm ² cables	-/120/120	
Fire cables	Up to 4x cables	-/120/120	
CAT cables	Up to 4x cables	-/120/120	
Fibre cables (NBN)	Up to 4x cables	-/120/120	
PEX pipes	Up to 20mm nominal	-/120/120	
PEX-AL-PEX pipes	Up to 20mm nominal	-/120/120	

*FRL achieved is subject to the supporting construction and walls. I.e. a conduit cast in a 90/90/90 slab can only achieve a-/90/90 FRL, or a conduit over a-/60/60 wall can only achieve-/60/60.

FRL Required	Minimum travel distance (within concrete slab)
-/90/90	250mm
-/120/120	500mm

INSTALLATION

STEP 1



Set conduits in place in the concrete slab.

STEP 2



Once the slab has been poured and cured, simply backfill FyrePEXTM HP sealant into the service to a depth of 30mm.

INSTALLATION CONSIDERATIONS

SERVICE SEPARATION



When setting the services in place, ensure that each is 70mm apart from the next (edge to edge).

LENGTH OF CONDUIT RUN



Depending on the required FRL the minimum distance the service must run through the slab changes to be compliant with the approvals.

FyrePEXTM HP



FyrePEXTM High-Performance sealant is a graphite water-based intumescent mastic sealant that is used for fire stopping of service penetrations through fire-rated walls and floors to prevent the spread of fire for up to 2 hours.

Click to Watch Installation Video



KEY FEATURES



- Specifically designed for water and gas PEX pipe penetrations
- Also suitable for HVAC&R services
- Quick and easy to apply and install
- FyreSHEATH option helps reduce wastage
- Tested for SpeedPanel, Hebel and plasterboard walls
- Non-toxic & Green star rated for low VOC
- Water based for easy clean up
- Tested and approved in accordance with AS1530.4-2014 and AS4072.1

APPLICATIONS



Plumbers	PEX pipes PEX-AL-PEX pipes Insulated Steel Copper
HVAC&R	Pair coil (single or in clusters of 3)
Electricians	Power Data cables Conduits

TRADES

