

A brief insight into

Fire Stopping

Passive. Prevention. Protection.
Protecting properties since 2015

YOUR legal responsibility to protect YOUR building and its occupants

FIRE STOPPING

What is it?

Fire Stopping is the measure of preventing flame and smoke travelling through a fire compartment wall/floor. Often done using fire resisting materials adhered to the existing building where services penetrate or openings in construction.

A good example to understand it is a box, the box is designed to last 60 minutes in a fire. However, there is a hole in the box allow the fire to travel out of the box. Fire-Stopping would fill that hole with proven fire resisting materials to contain the fire for 60 minutes.

Why is it important?

Fire Stopping is important because it is a **legal** requirement. Not to mention that it's sole purpose is to protect occupants and the building in the event of a fire. Giving as much time as possible for the Fire Brigade to gain control of the fire. As defined in the Approved Document B;

"If a fire separating element is to be effective, every joint and imperfection of fit, or opening to allow services to pass through the element, should be adequately protected by sealing or FireStopping so that the fire resistance of the element is not impaired"
Section 10.2 Approved Document B (fire safety) Vol.2 2010

"Every compartment wall and compartment floor should form a complete barrier to fire between the compartments they separate and have the appropriate fire resistance"
Section 8.20 Approved Document B (fire safety) Vol.2 2010

HOW WOULD I KNOW IF MY FIRE-STOPPING IS ADEQUATE?

Fire Risk Assessments (FRA)

The first sign that your firestopping is adequate is if it is flagged in Fire Risk Assessments. These assessments will highlight any visible firestopping defects as they are non-intrusive in nature. Therefore if they do not highlight any defects, the compartmentation may be in order but you should not rely on them as your 'Bible'. You should still get a compartmentation survey conducted to ensure compliance.

If your FRA highlights any firestopping defects, your first responsibility is to get a compartmentation survey conducted which will ascertain if the witnessed defective compartmentation is a one-off occurrence or is consistent throughout the building. Failing to get a compartmentation survey conducted can put you at risk of negligence if a fire was to occur.

In the event of fire, and deaths, a court will want to know how every fire protection system was selected; the basis for selection of the installer, whether adequate time was provided for its installation, and whether there was adequate liaison between the different parties to ensure it was installed correctly. No ifs, no buts – it's all contained in the Construction, Design and Management Regulations 2007. The court will request all of this documentation, can you provide it if asked?

ACCREDITATION



Why is it important?

As per the RRF50 it is required to ensure a competent contractor is chosen. Accreditation can prove a contractor's competence.

IF IN DOUBT, CONTACT US TODAY

T : 01708340934
M : 07931744557

E : enquiries@evolutionsfireprotection.com
W : www.evolutionsfireprotection.com

Suite 6, Regency House,
Harold Wood, RM3 0DQ

What does compliant firestopping look like?

Installer. Products. Documentation.

Are the **key** points to identifying compliant firestopping.

INSTALLER

There is a noticeable difference between correct/incorrect installations. This can be traced back to the installer.

Are they NVQ certified?

Do they know the manufacturers install spec?

Have they been trained?

Has the company got an industry approved accreditation? (FIRAS, ASFP, BM TRADA)

PRODUCTS

Product selection is key. Knowing the correct products to use in the correct situation is vital to the success of a firestopping seal. Products are not to be mixed with different manufacturers as this is not tested and they cannot warrant the seal. Products used must be BS476 Pt 22 or BS EN 1366-3/4 tested. This test dictates the fire resistance on non load bearing elements.

DOCUMENTATION

A competent contractor should provide as much documentation as possible. (Product Data, Safety Data, Certificates, Manufacturers Installation Specifications etc) Each of their seals would be recorded and labelled with a sticker with before and after photos relating back to a worksheet. They should be able to provide this with no hesitation or delay for any install.

Compliant Firestopping Examples



Good Fire Stopping

A correctly installed, labelled seal which dictates the date, installer and identification number.

This has been sealed using an Ablative Batt, Fire Rated Acrylic in Mastic and Brush form using suitable fixings.

All edges have all been coated in a brush grade acrylic mastic and is suitably fixed to the plasterboard as per manufacturers instructions.



Good Fire

Plastic Pipes will melt in a fire thus leaving a hole the diameter of the pipe. As you can see a collar has been fitted to this pipe as it passes through a wall. All of its lugs have been fixed (which is a requirement for all collars) and we have even installed a Fire Rated Acrylic to ensure a sufficient smoke seal.

In a fire this will close this plastic pipe and fill the 110mm hole in this wall.



Good Fire Stopping

A correctly installed, labelled seal which dictates the date, installer and identification number. All of this is mandatory even for a small cable seal such as this one.

This seal can last up to 4 hours however it is only required to last 60 minutes.



Good Fire Stopping

Akin to Plastic Pipes, lagged pipes also require a closer due its lagging not being fire rated. Therefore it is essential that the lagging is closed down to prevent it from combusting.

An Intumescent Wrap has been installed to the lagging which will crush the lagging in a fire similar to that of a collar.

IF IN DOUBT, CONTACT US TODAY

T : 01708340934
M : 07931744557

E : enquiries@evolutionsfireprotection.com
W : www.evolutionsfireprotection.com

Suite 6, Regency House,
Harold Wood, RM3 0DQ

What should I look for?

FIRE STOPPING

Mistakes or Incorrect Installs

There are a large number of mistakes a firestopping seal can have from inadequate joints, incorrect product usage, mixing material manufacturers, missing fixings, incorrect overlap. **The list can be extensive which is why we recommend you contact an accredited fire-stopping specialist or consult an association body such as BMTRADA, FIRAS, ASFP, IFE to give their verdict on the state of your protection.**

The most common red flag is Foam. In recent years there has been a shift in opinion regarding 'Fire Foams' in FRA's but these products have been flagged for years by Fire-Stopping specialists for being inadequate and often times worse than no fire-stopping. There are a multiple reasons to why they are inadequate but primarily many are installed to services/applications outside their original manufacturers specifications. Refer to the specifications of the Manufacturer to confirm if your 'Foam' is suitable.

Common Mistakes



Poor Fire Stopping

Polyurethane Foam should only be used to manufacturers specifications.

If the manufacturer is unknown, it should be removed and replaced with a third-party accredited product and installer.

Foam often claims to be 'fire rated' however a majority have 'reaction to fire' classification. Which is in relation to ignitibility and surface spread of flame. This reaction to fire classification cannot support the product when fire integrity is required.



Poor Fire Stopping

Plastic Pipes will melt in a fire thus leaving a hole the diameter of the pipe. Which this then introduces the major issue of allowing a fire to travel through the pipe voiding any compartmentation.

It is required that a closing device is installed to any plastic pipe which penetrates a fire wall or floor. In a fire this device would expand crushing the pipe and filling the hole.



Poor Fire Stopping

Ablative Batts and Fire Rated Acrylic Mastic are the normal types of Fire-Stopping seen in any new construction.

However there are very strict rules:

- All edges, joints must be sealed with Mastic including a brush coat. (If you can see green, its wrong!)
- It should be as few pieces as possible
- It is required to be fixed or compression fit depending on substrate and manufacturer



Poor Fire Stopping

As mentioned above, Plastic pipes require Closing devices. They can many forms such as an Intumescent Wrap/ Intumescent Mastic/ Collar/Sleeve. An Intumescent Mastic is seen to the left. However there are strict rules:

- The closer device should not be proud of the Batt by no more than 10mm
- Depending on manufacturer Intumescent Mastic may have strict annular and depth requirements

IF IN DOUBT, CONTACT US TODAY

T : 01708340934
M : 07931744557

E : enquiries@evolutionsfireprotection.com
W : www.evolutionsfireprotection.com

Suite 6, Regency House,
Harold Wood, RM3 0DQ

GETTING STARTED

GET STARTED The Six Step Process

There is a simple five step process to ensuring the building is safe for all. Evolutions Fire Protection are happy to assist.

- Step 1 - Incorrect Fire-Stopping Identified (FRA, Fire-Stopping Specialist Visit, Self Inspection)
- Step 2 - Rectify Incorrect Fire-Stopping
- Step 3 - Conduct A Compartmentation Survey
- Step 4 - Any Defects Found?
- Step 5 - Review & Rectify All Found Defects From The Compartmentation Survey
- Step 6 - Compliance

We recommend that you keep a copy of all fire-stopping records on site for future trades and fire brigade for the building to show that the fire-stopping has been conducted.

OUR SERVICES



1. Fire-Stopping Installer



2. Fire Door Installer



3. Compartmentation Surveys

"It would not be unreasonable to assume that during the past decade, our commercial building stock has become less resilient to fire – and this goes some way to explaining the steep increase in fire losses".

Roy Watkinson, Technical & Commercial Insurance Director, AXA Insurance, FRM Journal 2011

Dwelling Fires in 2018

30,412

Source: Home Office Fire Rescue Incident Statistics England Ending year June 2018

About Evolutions Fire Protection Ltd.

Bringing innovation to the fire industry.

We are a family run business that is building a growing reputation in the fire protection industry for high quality installations at affordable prices. We are also third-party accredited by BM Trada (Cert No. 910) for our fire stopping installations and fire door installations.

Incorporated
23 Feb 2015

Previous Projects
30 Projects

Employees
25 Employees

Ryan - Director
07913744557

Email us at
r.farmer@evolutionsfireprotection.com

Alex - Manager
07398785584

Email us at
a.child@evolutionsfireprotection.com

Reports

All reports are fully refunded if remedials are given to us!

We can cater for any requirements and any budget. With a wide variety of reports available we can offer a detailed medium to present the buildings defects to you.

Our most popular reports are Bolster based

By using Bolster Systems we are able to accurately locate and identify defective fire stopping on a live map. Then you can watch us in real time rectify this live map to protect your building!



Fire Stopping Installation



Fire Door Installation



T : 01708340934
M : 07931744557

E : enquiries@evolutionsfireprotection.com
W : www.evolutionsfireprotection.com

Suite 6, Regency House,
Harold Wood, RM3 0DQ