



UNDERSTANDING PASSIVE FIRE PROTECTION

Passive fire protection, or containment, refers to products or methods which slow or prevent the spread of fire. This needs to be built into a building's fire protection scheme along with detection (systems that detect fire) and suppression (systems that extinguish or prevent the spread of fire).

Fire rated walls and floors, which contain fire, can lose their resistance once openings are made to allow services, such as cables, to pass through. These openings need to be sealed to prevent fire spreading. Fire stopping products with the same or higher fire rating as the walls and floors they are installed in are used to maintain integrity.



Fire stopping products are used to contain fire and restore the fire rating of walls and floors.

APPLICATIONS

Legrand's EZ-Path range is a flexible and cost-effective solution that meets fire stopping requirements in all market sectors where passive fire protection is required from data centres, which have significant cabling requirements, to multi-dwelling units, with single cable requirements.



DATA CENTRES The cabling requirement within data centres is significant and constantly changing



COMMERCIAL OFFICES Offices are regularly changing and reconfiguring requiring updates to cabling etc



HEALTHCARE Healthcare installations require rigorous planning and have numerous firewalls



Hotels have a significant cabling requirement including CCTV and upgrades to multimedia equipment



EDUCATION It is crucial to minimise disruption when installing or updating fire stopping products in education settings



MULTI-DWELLING UNITS Multi-dwelling units require many single cable installations for satellite television etc

Llegrand

CHOOSING A FIRE STOPPING DEVICE FOR ELECTRICAL AND DATA INSTALLATIONS

Before choosing a fire stopping device it's vital to understand the requirements of the building it will be installed in.

Firstly it is important to be aware of the construction of the building and the areas within it. This is easier with a new build as walls etc are shown on drawings, but can be a little more complicated with existing buildings.

The type of wall or floor used has a bearing on the fire stopping device that you can use. The following wall types can be used for passive fire protection:



Rigid walls and floors Either made of a variety of brick, concrete block or concrete.

Floors are considered in the same way as rigid walls when selecting a fire stopping device.



Flexible walls

Often called partition, dry wall or cavity walls, these are made of a steel frame with plasterboards either side of a set gap.



ROCKWOOL ablative coated batt Intended to act as an airseal barrier to reinstate the fire resistance of concrete floors, masonry walls and drywall systems when voids have been created for the passage of services.

Increased capacity, new equipment and replacement of obsolete equipment can mean that electrical and data cables need to be added and removed regularly. It's important to remember this when planning passive fire protection as doing this at a later date will mean drilling and cutting of walls and floors and therefore loss of fire resistance during and after works.

FIRE CLASSIFICATION

It is also important to know the required fire classification of the area the fire stopping device will be installed in.

Fire classification E: Integrity

Fire resistance class E: Integrity demonstrates the ability to prevent the passage of flames or hot gases through the module when exposed to fire on one side, and to prevent the occurrence of flames on the unexposed side.

Fire classification EI: Integrity and Insulation

Fire resistance class EI: Offers the highest level of protection from flames, smoke and heat. This classification of fire rated devices performs to the standard of E when exposed to fire on

one side, and also restricts temperature rise on the unexposed side to below the required standard.

The classification is formed by putting either E or El followed by the time in minutes that the wall or fire stopping device is approved to.

EI120 / E180 Integrity & Integrity Insulation

WHY CHOOSE EZ-PATH FIRE STOPPING DEVICES

EZ-Path mechanical fire stopping devices offer the client, specifier, contractor and fire inspector a solution for passive fire protection through walls and floors where electrical and data cables have been installed.

EZ-Path devices contain a factory fitted intumescent lining which reacts to either flame or heat (at 177°C) by expanding by 800% in size, closing the pathway.

- EZ-Path can be used for power and data cables up to 100mm in diameter
- The device is approved empty or 100% visually full allowing for easy inspection
- Does not require a fire specialist to install
- Approved for use in all wall and floor types
- Available in two sizes. The 33 module is ideal for restricted spaces in ceiling and floor voids and 44+ module for all other applications
- Cables can be added or removed without the need for additional holes which means the fire rating of the wall or floor does not have to be restored and dust and debris is not created, thus controlling cost





Single cable devices available for cable up to 14mm in diameter



Modular plates allow for increased capacity



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Extension pieces available for walls thicker than 250mm