



...prevents the spread of fire through electrical conduit



Uniclass L74731:L68114	EPIC K7321 :F813
CI/SfB (63.29) X (K2)	

FEATURES

- Meets the firestopping requirements of the 17th edition of the IEE Wiring Regulations
- Tested to BS476 Part 20/EN 1366-3 for up to 2 hours with variable cable fill
- Can be used in masonry/stud walls and concrete floors
- For use in offices, schools, hotels, data-centres, hospitals, clean rooms, armed forces, nursing and student accommodation and other commercial properties or multiple occupancy residential buildings
- Supplied in 300mm lengths and can be cut to length
- Available for 20mm and 25mm plastic conduit
- Suitable for most data-cabling and wiring installations
- No need for special tools
- Simple, quick and error free installation
- No need for resealing conduit after carrying out upgrade cabling works
- Forms an integral part of the conduit installation
- No earth bonding required
- Peace of mind that installation is safe and 'fit for purpose'
- Easily identifiable to building inspectors

 **Polypipe**
Polypipe Ventilation

THE REGULATIONS

The new 17th edition of the IEE Wiring Regulations states, that where a wiring system passes through a fire compartment the openings remaining after the passage of the wiring system shall be sealed according to the degree of fire-resistance prescribed for the respective element of building construction before penetration. It also states that during alteration work, sealing which has been disturbed shall be reinstated as soon as appropriate. In addition to this, wiring systems such as conduit systems must also be internally sealed to the degree of fire-resistance of the respective element before penetration as well as being externally sealed.

Approved Document B of the Building Regulations states that tested proprietary sealing systems can be used on service penetrations. It warns that not all of the materials listed will be suitable in every situation.

Furthermore, Approved Document P states that electrical installations must be designed and installed to afford appropriate protection against mechanical and thermal damage and so that they do not present electric shock and fire hazards to people.

The Regulatory Reform (Fire Safety) Order 2005 now means that a fire risk assessment

WHAT IS A SUITABLE PRODUCT?

Often there is uncertainty about what is actually required and if the installed product does in fact meet the requirements.

Traditionally, intumescent mastics, fire rated foams and firestop compounds have been used to firestop electrical conduit, but these raise many questions and problems.

What size hole should an installer drill, how much intumescent mastic, foam or compound should surround the conduit and how far into the penetration should the intumescent be injected?

You don't know! Standard practice when installing a 20mm conduit would be to drill out a 20mm diameter hole in a wall or floor. For an intumescent sealant to work it requires a minimum defined width and depth of seal. Working on a minimum annular gap of 10mm around the conduit, the contractor would have to drill out a hole of 40mm, to allow any sealant to be pumped in. You can never be 100% certain that the amount of intumescent used will close off the penetration.



RESPONSIBILITY

approach is required for non-domestic premises and the person responsible for the fire safety of the building must focus on reducing risk and their emphasis must be on fire prevention. Lack of firestopping to cable penetrations is often highlighted as a major source of risk for fire spread, due to upgrade works in occupied buildings for telecomm, power and data cables.

This clearly identifies a requirement for every electrical contractor to firestop their cable runs where they penetrate fire compartments in commercial, industrial and multiple occupancy buildings, both in new and existing buildings.

Firestopping is often neglected in both new and existing buildings with some contractors taking the attitude, 'out of sight, out of mind'. However, increasingly the contractor can be held liable for problems incurred as a result of not installing a 'fit for purpose' product. When fire is involved this normally means that there could be significant financial penalties and possibly even claims of corporate manslaughter.

Manufacturers, specifiers, stockists and contractors all have a 'duty of care' to ensure that products used are suitable.

What happens when you put mastic internally into the conduit or wiring bundle?

The regulations state that installations must be sealed internally as well as externally, but by pumping intumescent into the wires it makes rewiring or refurbishment almost impossible as the wires would stick together. It would also mean the installation would no longer be covered by its inspection certification. There is also a risk of potential detrimental chemical compatibility problems between the sealant and the external cable sheathing. During re-wiring works, fire stop seals have to be destroyed and, more often than not, they are not reinstated as the installer is unaware of their responsibility or does not have the tools to do the job.

How do building inspectors know if the penetration is effectively sealed internally and externally with an intumescent material?

In many cases they do not. Often it will be just guesswork that the right amount of intumescent has been used, or if an intumescent material has been used. It has already been identified that even with manufacturers' certification many installations will be unique and therefore not meet the regulatory requirements. Sometimes building inspectors can only be sure the installation is fit for purpose if the installation is removed for inspection.

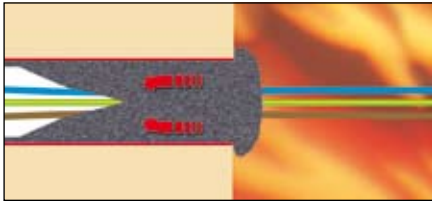
THE SOLUTION

FireBrake Electrical Conduit removes these ambiguities.

New and unique, it has been designed to solve these problems and meet the regulatory requirements in a professional, quick, simple and cost effective way. However, most importantly it also prevents careless installation, which can be common with other firestopping conduit products. It ensures that the installation is safe and will work under fire conditions.

How does it work?

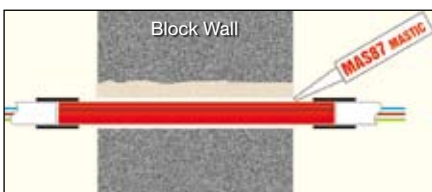
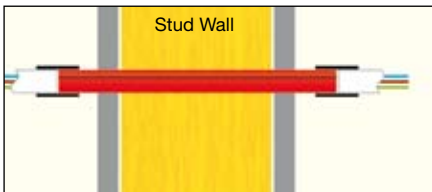
FireBrake Electrical Conduit has an internal layer of intumescent that reacts to fire and rapidly expands, stopping the spread of fire through the electrical system by providing a 100% closed fire stop plug, thus reinstating the fire resistance of the element concerned. It ensures that the installation is 100% protected both internally and externally. It is certain that the installation will work when it most needs to.



Installation

As FireBrake Electrical Conduit has the same outer diameter as standard conduit, it can be connected with standard conduit couplers and forms part of a complete cable management system. FireBrake Electrical Conduit is supplied in 300mm lengths that can be easily cut, which means that one length can often complete two installations.

Although a technically advanced fire protection product, it is easy to install and does not present the installer with anything 'different' to consider during installation. It can be fitted into pre-cast, core cut or other accurately produced openings using standard installation techniques, familiar to all site engineers. No additional fixing is necessary, although some installations may require the use of standard acrylic acoustic intumescent mastic for making good.



Because there are no metal components, this ensures that there is no need for any earth bonding.

Inspection of wiring is simple as the inner bore of the conduit is not filled with any other firestopping material. It also means that wiring after inspection is still possible. FireBrake Electrical Conduit provides a fail-safe and easy solution for potential wiring and cabling upgrade works, a major source of risk for fire spread in occupied buildings

FireBrake Electrical Conduit is tested for installation in concrete floors, plasterboard partitions and block work walls.

Savings

As has been proved, FireBrake Electrical Conduit is very quick and simple to install and is estimated to reduce typical installation time on traditional methods by as much as 66%.



Peace of Mind

Most importantly, FireBrake Electrical Conduit will provide unrivalled reliability for the life of the conduit system. The nature of the product means that there is less chance for poor workmanship and will also avoid ambiguous installations, such as those associated with compounds and mastics. The installation becomes professional and seamless. It ensures that the installation is safe and will work under fire conditions and that supporting documentation will prove that the product is 'fit for purpose'.

Easily Identifiable

FireBrake Electrical Conduit is easily identifiable as a firestop – sealants could just be decorator's caulk and test data of sealants with conduit is slim, if they even exist. FireBrake Electrical Conduit's wall thickness is engineered to provide the exact amount of active ingredient to close the conduit off if empty, partially or completely filled with cables. The red colour of the FireBrake Electrical Conduit helps to identify the product during inspection.



THE RANGE

Code	Description	Length
20C89	20mm FireBrake Electrical Conduit	300mm



25C89	25mm FireBrake Electrical Conduit	300mm
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FireBrake Electrical Conduit is available in attractive contractor packs that are ideal for keeping in the back of a van or, alternatively, as a dispenser at the stockist so individual lengths can be purchased.

The 20mm pack contains 42 lengths and the 25mm pack takes 26 lengths.



FURTHER INFORMATION

If you require additional information on FireBrake Electrical Conduit or copies of field of application reports, please do not hesitate to contact our technical or sales offices on 01799 540 602.

...the complete solution

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