Cable Penetration Seals for Cable Management

Passive Fire Protection

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THE FIRE RATED PATHWAY DESIGNED FOR CABLING
CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

Fire protection
Containment / Detection / Suppression

Fire containment
Passive Fire Protection

Code and testing methods

Penetration seal systems

PENETRATION SEALS FOR DATA
and LOW VOLTAGE CABLES

Needs and requirements

Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLE PRINTING
Systems designed to discover fire early in their development for safe evacuation of occupants

Also known as active fire protection, systems designed to extinguish and prevent the spread of fire in a building

Also known as passive fire protection, fire rated walls and floors are built to restrict the spread of fire to another area.

Methods of providing fire detection, fire containment and extinguishment
CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

- Fire protection
  - Containment / Detection / Suppression

- Fire containment
  - Passive Fire Protection

- Code and testing methods

- Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

- Needs and requirements

- Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

EzhPath®
Fire containment is also known as Passive Fire Protection

Passive fire protection can be described as the process of restoring the fire rating of the barriers (walls and floors) which have lost their fire resistance from construction openings.

Penetration seals are the systems installed where openings had been made to restore the original fire resistance of the barrier.
Openings are made in fire rated walls and floors for services as cables / plastic pipes / metallic pipes / ducts / busbars ....

Wall and floors are not fire rated anymore.

Openings are not sealed
When openings are made for services, fire rated barriers lost their fire resistance. Fire can progress to other areas. Openings were not sealed.
How to restore the resistance of fire rated barriers?

Passive Fire Protection shall be implemented.

Penetration seals are installed in each opening to restore the fire resistance of the area.
Penetration Seals prevent the fire from progressing to other areas.

The fire rating of the barriers had been restored.

Fire is contained. The rest of the building is safe.
CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

- Fire protection
  - Containment / Detection / Suppression
- Fire containment
  - Passive Fire Protection

CE Code and testing methods

Penetration seal systems

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

- Needs and requirements
- Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

EZ-Path®
Every **penetration seal system** for services and joints in walls and floors shall provide a fire resistance at minimum equal to the fire resistance of the fire rated barrier (wall or floor).

**Regulation**
- Construction Product Regulation (CPR)
  - Directive 89/106/EEC

**Testing methods**
- Fire resistance testing standard
  - Fire Rated Barrier: EN1366-1
  - **Penetration seals**: EN1366-3
  - Construction joints: EN1366-4

**Certification**
- Fire resistance classification
  - EN13501-2
  - Performance up to 4 hours
    - EI30 / EI60 / EI120 / EI180 / EI240
The fire test is run according to the EN1366-3
“Fire resistance tests for service installations. Penetration seals”

Rigid wall
Flexible wall
Rigid floor
CE Marking for Penetration Seals

- The CPR includes requirements for construction products to have the CE Marking and a declaration of performance (DoP).
- Construction product covered by a harmonised European standard (hEN) or for which ETA has to be CE marked.

Why to apply for the CE Marking?

To make sure that the product complies with CPR rules, and is under a quality control survey by a third party Notified Body.

CPR = Construction Product Regulation
PASSIVE FIRE PROTECTION

- Fire protection
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- Fire containment
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- Code and testing methods

PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

- Needs and requirements
- Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLING

PENETRATION SEALS FOR CABLE MANAGEMENT
TYPES of PENETRATION SEALS

MEP
Mechanical, Electrical and Piping

Data and low voltage cables

Curtain wall joints

Construction joints
CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

PASSIVE FIRE PROTECTION

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PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

- Needs and requirements for data and low voltage cables
- Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLE MANAGEMENT

EZPath®
Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

- Why?
- The challenges
- The penetration seal solution
Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

Why?

• Increase Capacity
• Support New Equipment
• Support New Applications
• Replacing Obsolete Cabling Infrastructure
Cable penetration seals for cable management

NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

Cable Moves, Adds and Changes

Working environments are changing constantly, bringing new priorities and challenges for an Organization.

Challenges

- Disruption to Operation
- Downtime in Productivity
- Inconvenience to Tenants
- Risk of compromising existing Infrastructure
Working environments are changing constantly, bringing new priorities and challenges for an organization.

The Cable Penetration Seal Solution

NEEDS and REQUIREMENTS FOR DATA and LOW VOLTAGE CABLING

How to choose the right cable penetration seal system?

The penetration seal system shall be:

- Always fire rated
- Cable friendly
- A modular solution for flexibility
- Certified for all types of constructions and cables

NEEDS and REQUIREMENTS

for the network

- No downtime acceptable.
- The system should be continuously operational
CABLE PENETRATION SEALS FOR CABLE MANAGEMENT

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PENETRATION SEALS FOR DATA and LOW VOLTAGE CABLES

- Needs and requirements
- Hidden costs and risks of penetration seals

THE FIRE RATED PATHWAY DESIGNED FOR CABLING
WHAT ARE THE REAL COSTS OF CABLE PENETRATION SEALS?

**VISIBLE COSTS**

- Product price
- Installation cost

**HIDDEN COSTS and RISKS**

- Downtime
- Cable damages
- Non-compliance risk
- Handling cost
- Improper installation risk
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Needs and requirements

Hidden costs and risks

THE FIRE RATED PATHWAY DESIGNED FOR CABLES

EZ-Path®
EZ-Path is a self-sealing cable penetration system engineered as a fire rated pathway.

EZ-Path does not require any handling for fire protection and is always ready for inspection.

EZ-Path can accommodate by design any cable changes.

EZ-Path is built with two intumescent flexible pads which adapt automatically to accommodate the cables. When exposed to heat, the pads expand to completely seal the device from smoke and flames up to 4 hours.
THE FIRE RATED PATHWAY DESIGNED FOR CABLELING

No firestop handling during cable maintenance
The fire is contained
The rest of the building is safe.

EZ-Path is always compliant
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Wall application  Limited access area  Floor application
Where access is limited

- Lower ladder
- Above the ceiling
- Below raised floor
THE FIRE RATED PATHWAY DESIGNED FOR CABLELING

Certified and Approved

Up to 100% cable loading

For all types of cable
- Data
- Fiber optic
- Control
- Power

No action is needed to activate the internal sealing mechanism. Top and bottom intumescent pads adjust themselves automatically to ensure contact onto surface of cables.
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

No sharp edge
Cable friendly pathway

Retrofit possibly for existing cables
Device can be opened

Earth ground feature
THE FIRE RATED PATHWAY DESIGNED FOR CABLING

Possibility to pull cables through the device

High cable capacity per surface unit

Extension feature for thick walls
Tested and Certified

Reaction to Fire : EN13501-1          Class E
Fire Resistance Test : EN1366-3      Up to 4 hours
Classification : EN1301-2            Up to EI120

ETA 13 / 0887
Up to 4 hours fire resistance

**Before** fire exposure
EZ-Path Series 44+ grouted

**After** 240 minutes fire exposure
non-exposed and exposed sides
Up to 4 hours fire exposure
Non exposed side not damage

Classified E240 per the EN13501-2
HIDDEN COSTS AND RISKS

WHAT IS THE REAL COST OF EZ-PATH?

VISIBLE COSTS
Product price
Installation cost

HIDDEN COSTS, RISKS and NEEDS
- Downtime
- Handling cost
- Cable damages
- Improper installation risk
- Non-compliance risk

WITH EZ-PATH, NO ADDITIONAL HIDDEN COSTS and RISKS

Only for EZ-Path
EZPath®

- No firestop handling
- Compliant for inspection
- No additional cost and risk
- Ready for cable management

THE FIRE RATED PATHWAY DESIGNED FOR CABLELING

CABLE PENETRATION SEAL

- Firestop handling is required after every cable change
- Inspection may reject the penetration seal compliance
- Additional costs involved by cable changes
EZ-Path®

EZ-Path is always ready for fire safety inspection

CABLE PENETRATION SEAL

The system may not be fire safety compliant
Advantages of **EZ-Path**

**CABLE FRIENDLY**
- Cable pathway designed for cable changes, adds and moves.

**NO FIRESTOP HANDLING**
- Ready for cable maintenance and inspection
  - *24/7* fire protection

**MECHANICAL FINISHED PRODUCT**
- No more sealant and coating to apply

**PROJECT EARLY INTEGRATION**
- EZ-Path provides fire protection and cable management solution at an early stage

**NO MORE COST AND LIABILITY RISK**
- No hidden costs, risks for this cable penetration seal. No worry anymore about fire protection
- You can focus on cable management