K-FLEX FIRE WRAP

INTRODUCTION

K-FLEX FIRE WRAP is an intumescent wrap designed to maintain the fire resistance of fire separating walls and floors when these are breached by continuous plastic pipes or metal pipes with combustible insulation, and may be used in gypsum, masonry or concrete walls and concrete floors.

Each pipe wrap consists of a graphite based reactive intumescent strip which reacts to heat and closes the opening left by the softening plastic pipe or pipe insulation in fire.

The pipe wrap is installed completely around the pipes or insulation and secured with the self-adhesive tab.

The annular space around the pipe wrap is sealed with K-FLEX FIRE ACRYLIC.

APPLICATION

- Plastic pipes penetrating fire separating rigid or flexible walls ≥ 100mm
- Plastic pipes penetrating fire separating floors ≥ 150mm

CHARACTERISTICS AND FEATURES

K-FLEX FIRE WRAP consists of an easy to fix the plastic sleeve containing a tough, flexible, intumescent sheet material and offering up to 240 minutes fire resistance.

Features include:

- Seal ranges offering up to 240 Minutes Fire Resistance;
- Independently fire tested and assessed to the requirements of EN 1366-3:2009 and BS 476 Part 20:1987;
- Fire tested in both horizontal and vertical orientations;
- Quick and Easy to fix with self-adhesive closing
- Hidden fixing within the depth of the floor or wall construction;
- Fast acting intumescent action;
- Intumescent material unaffected by moisture or CO_2;
- Can be used in conjunction with K-FLEX FIRE ACRYLIC sealant.

FIRE CLASSIFICATION

PENETRATION TYPE & MAX DIMENSIONS	MINIMUM WIDTH AND NUMBER OF LAYERS OF PIPE WRAP	CLASSIFICATION
FLEXIBLE AND RIGID WALL CONSTRUCTIONS ≥ 100MM		
≤ Ø110mm PVC-U & PVC-C pipe	50 x 3.6mm (2 layers) both sides	E 120 U/C, C/C EI 90 U/C, C/C
Ø125mm PVC-U & PVC-C pipe	50 x 5.4mm (3 layers) both sides	E 120 U/C, C/C EI 90 U/C, C/C
Ø160mm PVC-U & PVC-C pipe	50 x 7.2mm (4 layers) both sides	E 120 U/C, C/C EI 90 U/C, C/C
RIGID FLOOR CONSTRUCTIONS ≥ 150MM		
≤ Ø110mm PVC-U & PVC-C pipe	75 x 1.8mm (1 layer), or 50 x 3.6mm (2 layers) soffit side	EI 180 C/C
Ø125mm PVC-U & PVC-C pipe	50 x 7.2mm (4 layers) soffit side	EI 180 C/C
Ø160mm PVC-U & PVC-C pipe	50 x 10.8mm (6 layers), or 75 x 5.4mm (3 layers) soffit side	EI 180 C/C

TECHNICAL NOTE

The minimum permitted separation between adjacent seals/apertures is 20cm.

An aperture can include several services, and they may also be different.

Services should be a minimum of 30mm from seal edges or other services so that the fire seals can be correctly fitted around each service.

Services in floors require a minimum separation of 10cm from other services.

The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

SUPPORTING CONSTRUCTION

Flexible walls must have a minimum thickness of 100 mm and comprise steel studs lined on both faces with minimum 2 layers of 12.5 mm thick boards. The walls must also incorporate a full fill core insulation of stone wool (35kg/m^3).

Rigid walls and floors must comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m^3. The service support must be classified in accordance with EN 13501-2 for the required fire resistance period.

INSTALLATION

1. Fix a suitable pipe wrap around the service penetration and fasten with the tape as tightly as possible in order to prevent any excess opening between the pipe wrap and the service.
2. In floors, only one pipe wrap is required to be installed flush with the soffit so that the edge of the wrap is visible from the underside when back-filled. For walls it is normal to fit a wrap on both sides of the wall, again with the edge just visible.
3. Where wraps are installed in hollow core slabs or planks, the tubular voids should be filled with stone-wool insulation, normally the same thickness as the depth of the floor.
4. Once the wrap is securely installed, using a suitable shuttering board, cast around the pipe wrap with K-FLEX FIRE EX MORTAR to the required depth.
5. See the detail drawings of various installation methods on next pages.

LIMITATION

It is the user's responsibility to determine suitability of use.

Since the product is applied under circumstances beyond our control L'Isolante K-Flex can accept no direct or consequential liability whether in contract or in tort, for the interpretations of such recommendations and reserves the right to modify the recommendations as necessary.