

Insulated Fire Sleeves

Fire protection of insulated pipe penetration

As part of the comprehensive FirePro® range of fire protection products, FirePro® Insulated Fire Sleeves are a unique combination of mineral wool and graphite intumescent that provide all the benefits of thermal, noise and fire with an added intumescent effect.

Tested to BS 476 Part 22, FirePro® Insulated Fire Sleeves will provide up to 2 hours fire protection.

Advantages

- Quick, simple and accurate installation
- Maintains pipe insulation at penetration points
- Supplied with integral vapour barrier
- No mastic or ancillaries required
- Excellent thermal and acoustic insulation
- Non-combustible

Description

Use of FirePro® Insulated Fire Sleeves makes a complex task simple. For insulated pipes, it is normally necessary to remove the insulation at point of penetration to enable standard pipe collars to close plastic pipes. This removal of insulation results in condensation on cold pipes and loss of thermal performance on hot pipes.

FirePro® Insulated Fire Sleeves avoids this problem by providing both fire stopping and thermal insulation.

FirePro® Insulated Fire Sleeves are intended for use on copper, mild steel, polypropylene and PVC pipes and can provide ½, 1 and 2 hour fire resistance.

FirePro® Insulated Fire Sleeves can be used on most types of plastic pipes.

Dimensions

FirePro® Insulated Fire Sleeves are supplied 300mm long. They are manufactured to fit a range of standard pipe sizes, from 17mm to 169mm O.D. and standard thicknesses of 25mm to 100mm.

Other pipe sizes and thicknesses may be available to special order.



Service temperatures

FirePro® Insulated Fire Sleeves are used to fire stop pipe work operating at temperatures between 0°C and 180°C. At low temperatures, care should be taken to maintain the vapour barrier.

Acoustics

FirePro® Insulated Fire Sleeve has been tested to provide a Weighted Sound Reduction Index (Rw) of up to 49db.

Compatibility

FirePro® Insulated Fire Sleeves are compatible with most materials with which they are likely to come into contact in normal building and industrial applications.

Precautions should be taken when insulating austenitic stainless steel, regardless of insulation type. Please contact Wilhams Insulation Far East Sdn Bhd for further details.

Biological

The Fire Sleeves offer no sustenance to vermin and do not encourage the growth of fungi, moulds or bacteria.

Performance and Properties

Fire Rating

For uninsulated pipes, a thickness of 25mm is required to maintain the fire rating. FirePro® Insulated Fire Sleeves should be installed to the same thickness as the pipe insulation (minimum 25mm thick).

FirePro® Insulated Fire Sleeves are intended for use on copper, mild steel, PVC, uPVC, HDPE, Polybutylene and ABS pipes. Tested in accordance with BS EN:1366-3:2009 and BS 476:Part 20:1987, the sleeves provide up to 2 hours fire protection. Please contact our technical sales team to confirm suitability of use.

Pipe Material	Pipe Size Range	Pipe Wall Thickness Range	Orientation & Construction		Integrity	Insulation
			Type			
			Floor ₁	Wall ₁		
Steel (uninsulated)	22mm - 165mm	2.5mm - 14.2mm	Masonry, Low Density Concrete, High Density Concrete	Plasterboard, Masonry, Coated Panel ₄	120 mins	-
Copper (uninsulated)	12mm - 160mm	2.5mm - 14.2mm	Masonry, Low Density Concrete, High Density Concrete	Plasterboard, Masonry, Coated Panel ₄	120 mins	-
Polybutylene	12mm - 28mm	2mm - 3.5mm	Masonry, Low Density Concrete, High Density Concrete	Mineral Wool ₂ , Plasterboard, Masonry, Coated Panel ₄	120 mins	120 mins
PVC, uPVC, HDPE, ABS	15mm - 160mm	3mm - 4.2mm	Masonry, Low Density Concrete, High Density Concrete	Mineral Wool ₂ , Plasterboard, Masonry, Coated Panel ₄	120 mins	120 mins ₃

₁ Sleeve needs to protrude 25mm out of walls and floors

₂ Up to 110mm diameter

₃ 160mm diameter applications are limited to 90 minutes

₄ When installed in a FirePro® Ablative Coated Batt, the sleeve needs to protrude 25mm out in a single layer / 40mm out in a double layer. Minimum length of sleeve in a single layer = 130mm

Installation

FirePro® Insulated Fire Sleeves are supplied 300mm long and are simply cut to the desired length. The sleeve must fully cover the part of the pipe that is located within the depth of the compartment wall or floor. The sleeve may be flush fitting or may protrude from the wall or floor by 25mm (typ.) to facilitate sealing of the outer foil facing onto adjacent insulation.

All joints to be taped with self-adhesive foil tape, including the joints where the insulated fire sleeve butts to existing insulation.

No specialist tools, mastics or ancillary materials are required for the fitting of FirePro® Insulated Fire Sleeves.

To maintain the fire rating stated above, the minimum allowable length of sleeve is 50mm.

FirePro® Insulated Fire Sleeves can accommodate irregularities in the division opening and the pipe O.D. up to 15mm.

Multiple pipe penetrations can be accommodated in conjunction with FirePro® Ablative Coated Batts.

On metal pipes, ROCKWOOL pipe insulation can be used to meet the insulation requirement for fire protection. Please contact Wilhams Insulation Far East Sdn Bhd for further details.



Packaging

FirePro® Insulated Fire Sleeves are supplied packed in cardboard cartons.

Health and Safety

Current HSE 'CHIP' Regulations and European Directive 97/69/EC confirm that ROCKWOOL fibres are not classified as a possible human carcinogen. A material safety data sheet is available from the Wilhams Insulation Far East Sdn Bhd.

FirePro® is the registered trademark of Wilhams Insulation Far East Sdn Bhd

WILHAMS

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