



Product Technical Data Sheet:

TDSCIPW

**PFC Corofil Intumescent
Pipe Wrap CIPW**

ETA Number: 20/1152

20/1147



**SERVICE
PENETRATIONS**



Technical Description of Product



PFC Corofil Intumescent Pipe Wraps are designed and tested to provide a fire-resistant seal in flexible walls, rigid walls, rigid floors, and PFC Corofil Coated panels where they have been penetrated by service penetrations containing plastic pipes and metallic pipes with insulation.

PFC Corofil Intumescent Pipe Wraps have been tested to EN1366-3 and offer fire resistance periods of up to 120 minutes for differing services and wall/floor constructions. Sizes are available to suit pipes from 32mm up to 250mm diameter. In the event of a fire the intumescent will expand when heated, providing a closure of combustible pipes to prevent the passage of fire between compartments.

PFC Corofil Intumescent Pipe Wraps are supplied in assembled form. The intumescent in the wrap is contained within a lightweight PVC carrier bag and is installed around the pipe at the soffit and upper face of rigid floors or on both faces of the wall depending on the application. The annular gap around the pipe wrap should be sealed using PFC Corofil Acoustic Intumescent Sealant (please see Technical Data Sheet TDCAIS for details). Please refer to the Performance Data tables on page 6 for the annular gap relevant to each pipe diameter.

Intended Use

The intended use of PFC Corofil Intumescent Pipe Wraps is to reinstate the fire resistance performance of wall and floor constructions where they are penetrated by various combustible pipes services.

The specific elements of construction that PFC Corofil Intumescent Pipe Wraps may be used with is listed under **Substrates** on page 5 of this data sheet.

This data sheet shows the only applications the product has been tested in. Please ensure the product has been tested in and is suitable for your application (see PFC Corofil terms and conditions 13.1.1).

Key Points

- Conditioned to Type X: Intended for conditions exposed to weathering -20°C to +70°C. Tested in accordance with EOTA TR024. Products for penetration seals intended for outdoor use exposed to weathering – rain, UV, high temperatures, frost and frost thaw in winter.
- PFC Corofil Intumescent Pipe Wraps have an assumed working life of 10 years. The indications of a working life can not be assumed as a guarantee given by PFC Corofil, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

Technical Data

Specification

Description	Result	Test Standard
Pipe Diameter	32mm, 40mm, 50mm, 55mm, 63mm, 75mm, 82mm, 90mm, 100mm, 110mm, 125mm, 140mm, 160mm, 200mm, 250mm	
Width (nominal)	40mm	
Thickness (nominal)	2mm at 32mm diameter, up to 12mm at 250mm diameter	
Plastic Pipe Material	PVC-U, PVC-C, ABS, SAN+ PVC, PE-HD, PE, PP	
Fire Resistance	Up to EI120	EN1366-3, EN13501-2
Density	Approximately 1.2g/cm ³	ISO 2811-1:2011
Expansion Ratio	Approximately 25:1	EOTA TR 024
Expansion Pressure N/mm ²	1.30	EOTA TR 024
Working Temperature	-20°C to +70°C	
Colour/Appearance	Red polythene bag containing intumescent strips	

Installation Instructions



- PFC Corofil Intumescent Pipe Wraps provide a penetration seal with specific combustible pipes, single pipes only, See Performance Data tables from page 6 for details.
 - Ensure that the aperture and penetration to be sealed is free from dust, grease and obstructions.
 - Ensure that the substrates and services have been tested for use with the PFC Corofil Intumescent Pipe Wrap and that the site conditions are within the application specification.
 - Apertures for pipe penetrations shall be separated by a minimum 200mm.
 - Services in walls shall be supported at maximum 400mm from the face of the separating element on both sides.
 - Services in floors shall be supported at maximum 400mm from the top surface of the floor.
 - Apertures in the separating element shall be a maximum oversize with respect to the pipe diameter according to the tables listed from page 6 of this data sheet and should be sealed using PFC Corofil Acoustic Intumescent sealant (see Technical datasheet TDSCAIS for details) to the full depth of the annulus.
 - Place the wrap around the pipe and hold in place using the self adhesive label attached to the wrap.
 - Slide the wrap into the aperture ensuring the edge of the wrap is friction fitted flush to both surfaces of the wall or floor.
 - Apply the sealant to the full depth of the annulus.
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Installation Instructions



Substrates

- Flexible walls: Minimum 100mm thick, comprising of metal or timber studs lined on both sides with 2 layers of 12.5mm 'type F' gypsum plasterboards according to EN520. In timber stud walls, no part of the penetration shall be closer than 100mm to the timber stud. A minimum 100mm of either class A1 or A2 insulation according to EN13501-1 shall be provided within the cavity between the penetration and the stud.
 - Rigid walls: Minimum 100mm thick and comprised of concrete, aerated concrete or masonry, with a minimum density of 650kg/m³.
 - Rigid floors: Minimum 150mm thick and comprised of concrete, aerated concrete or masonry, with a minimum density of 650kg/m³.
 - PFC Corofil Coated Panel system.
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Terminology

Fire resistance classes:

E = Integrity. The length of time it takes for the fire to pass to the non fire side.

I = Insulation. The length of time it takes for the heat of the fire to pass to the non fire side.

Test condition:

U/U = Uncapped in the furnace/Uncapped outside the furnace

U/C = Uncapped in the furnace/Capped outside the furnace

C/U = Capped inside the furnace/Uncapped outside the furnace

Performance Data

Resistance to Fire Classification of PFC Corofil Intumescent Pipe Wraps

Intumescent Thickness

The permitted thickness for the intumescent material for various ranges of pipe diameters

Intumescent Thickness	
Pipe Diameter	Intumescent Material
ø 32mm - ø 50mm	40mm wide x 2mm thick
ø 51mm - ø 82mm	40mm wide x 4mm thick
ø 83mm - ø 115mm	40mm wide x 6mm thick
ø 116mm - ø 160mm	40mm wide x 8mm thick
ø 161mm - ø 200mm	40mm wide x 10mm thick
ø 201mm - ø 250mm	40mm wide x 12mm thick

Walls minimum thickness 100mm

Flexible or Rigid Wall

PVC-u Pipes according to EN1452

PFC Corofil Intumescent Pipe Wraps installed within both sides of a flexible or rigid wall, minimum thickness 100mm - PVC-u pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
PVC pipe 32mm ø 1.8mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
PVC pipe 40mm ø 1.8mm wall thickness	40mm x 40mm x 2mm CIPW		
PVC pipe 50mm ø 1.8mm wall thickness	50mm x 40mm x 2mm CIPW		
PVC pipe 160mm ø 6.2mm wall thickness	160mm x 40mm x 8mm CIPW	10mm	EI90 U/C
PVC pipe 160mm ø 9.5mm wall thickness			EI120 U/C
PVC pipe 200mm ø 7.7mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	
PVC pipe 200mm ø 9.6mm wall thickness			

Performance Data

Walls Minimum thickness 100mm

Flexible or Rigid Wall

PE Pipes according to EN ISO 15494

PFC Corofil Intumescent Pipe Wraps installed within both sides of a flexible or rigid wall, minimum thickness 100mm - PE pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
PE pipe 32mm ø 2.9mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
PE pipe 40mm ø 2.9 mm wall thickness	40mm x 40mm x 2mm CIPW		
PE pipe 50mm ø 2.9mm wall thickness	50mm x 40mm x 2mm CIPW		
PE pipe 160mm ø 4.9mm wall thickness	160mm x 40mm x 8mm CIPW	10mm	EI15 U/C
PE pipe 160mm ø 9.5mm wall thickness			EI90 U/C
PE pipe 200mm ø 4.9mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	EI15 U/C
PE pipe 200mm ø 18.4mm wall thickness			EI120 U/C

PP Pipes according to EN 1451

PFC Corofil Intumescent Pipe Wraps installed within both sides of a flexible or rigid wall, minimum thickness 100mm - PP pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
PP pipe 32mm ø 2.9mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
PP pipe 40mm ø 2.9mm wall thickness	40mm x 40mm x 2mm CIPW		
PP pipe 50mm ø 2.9mm wall thickness	50mm x 40mm x 2mm CIPW		
PP pipe 160mm ø 4.0mm wall thickness	160mm x 40mm x 8mm CIPW	10mm	EI20 U/C EI90 U/C
PP pipe 160mm ø 14.6mm wall thickness			EI120 U/C
PP pipe 200mm ø 4.9mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	EI20 U/C EI90 U/C
PP pipe 200mm ø 18.2mm wall thickness			EI120 U/C
PP pipe 250mm ø 10.1mm wall thickness	250mm x 40mm x 12mm CIPW	14mm	EI20 U/C EI20 U/C

Performance Data

Walls minimum thickness 100mm

Single layer of 50mm PFC Corofil Coated Panel, pattress fixed to both outer faces of the wall. Maximum aperture 730mm wide x 1200mm high

PFC Corofil Intumescent Pipe Wraps installed within the outer faces of a 50mm PFC Corofil Coated panel installed pattress fixed to both sides of a flexible or rigid wall, minimum thickness 100mm.			
Penetration Specification	Wrap Reference	Penetration Formation	Classification
PVC pipe 50mm ø 1.8mm – 3.7mm wall thickness	50mm x 40mm x 2mm CIPW	Cluster formation of pipes with 0mm separation. There must be a minimum 50mm from the edge of seal	EI60 U/C
PVC pipe 200mm ø 7.7mm – 9.6mm wall thickness	200mm x 40mm x 10mm CIPW		
PE pipe 50mm ø 2.9mm – 4.6mm wall thickness	50mm x 40mm x 2mm CIPW		
PE pipe 200mm ø 11.9mm – 18.4mm wall thickness	200mm x 40mm x 10mm CIPW		
PP pipe 50mm ø 2.9mm – 6.9mm wall thickness	50mm x 40mm x 2mm CIPW		
PP pipe 200mm ø 4.9mm – 18.2mm wall thickness	200mm x 40mm x 10mm CIPW		

Performance Data

Floors minimum thickness 150mm

Rigid Floor

PVC Pipes according to EN 1452

PFC Corofil Intumescent Pipe Wraps installed within both sides of a rigid floor, minimum thickness 150mm - PVC pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
PVC pipe 32mm ø 1.8mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
PVC pipe 40mm ø 1.8mm wall thickness	40mm x 40mm x 2mm CIPW		
PVC pipe 50mm ø 1.8mm wall thickness	50mm x 40mm x 2mm CIPW		
PVC pipe 200mm ø 7.7mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	EI20 U/C EI90 U/C
PVC pipe 200mm ø 9.6mm wall thickness			EI60 U/C

HDPE Pipes to EN1519

PFC Corofil Intumescent Pipe Wraps installed within both sides of a rigid floor, minimum thickness 150mm - HDPE pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
HDPE pipe 32mm ø 2.9mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
HDPE pipe 40mm ø 2.9mm wall thickness	40mm x 40mm x 2mm CIPW		
HDPE pipe 50mm ø 2.9mm wall thickness	50mm x 40mm x 2mm CIPW		
HDPE pipe 200mm ø 4.9mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	
HDPE pipe 200mm ø 11.4mm wall thickness			

Performance Data



Floors minimum thickness 150mm

Rigid Floor

PP Pipes to EN1451

PFC Corofil Intumescent Pipe Wraps installed within both sides of a rigid floor, minimum thickness 150mm - PP pipes.			
Penetration Specification	Wrap Reference	Annulus Space	Classification
PP pipe 32mm ø 2.9mm wall thickness	32mm x 40mm x 2mm CIPW	4mm	EI120 U/C
PP pipe 40mm ø 2.9mm wall thickness	40mm x 40mm x 2mm CIPW		
PP pipe 50mm ø 2.9mm wall thickness	50mm x 40mm x 2mm CIPW		
PP pipe 200mm ø 4.9mm wall thickness	200mm x 40mm x 10mm CIPW	12mm	E20 U/C EI15 U/C
PP pipe 200mm ø 18.2mm wall thickness			E120 U/C EI90 U/C



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