Firebreak FX400 Pipe Collars

TECHNICAL DATA SHEET

Firebreak FX400 Pipe Collars are designed to maintain the fire resistance of floor and walls when penetrated by plastic pipes. Under fire conditions the intumescent filler expands to many times its original thickness exerting pressure on the softening pipe and closing the opening with a dense block of fire resistant char.

Description
The collars are available with two different fixing mechanisms and in three metal finishes, dependant on pipe size:

FX400-PC
Supplied in a hinged steel casing with toggle catch and a durable red powder coated finish.

FX400-Z
Supplied as two steel half shells casings with a simple 'slide together' fixing and durable zinc coating finish.

FX400-MC
Supplied as two stainless-steel half shells casings with a simple 'slide together' fixing. This collar type is used for all pipe sizes of less than 55mm diameter.
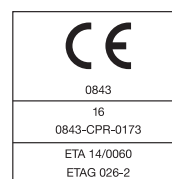
Fire Performance
FX400 Pipe Collars are tested to the latest European requirements for applications in walls and floors. Testing to other national standards is also available.

- Fire classification to EN 13501-2 and CE Mark (ETA 14/0060)

- Flexible walls (stud partitions) or rigid walls (masonry, concrete) of 100mm minimum thickness

- Rigid (concrete) floors of 150mm minimum thickness

- All testing undertaken using uncapped pipes (U/U) with specification applicable to all types of plastic pipe end uses including ventilation pipes

- Mechanical and durability testing to ETAG 026-2; Y2 (internal use within full ambient temperature range inclusive of temperatures less than 0°C)

- Third party product certification with UL International (Certificate # UL-EU-00513)

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ETA 14/0060
ETAG 026-2

UL EU

Firebreak FX400 Pipe Collars in concrete floors of minimum thickness 150mm

Penetrating service	Pipe outside diameter (mm)	Pipe wall thickness (mm)	Collar size	Fire performance (mins)	
				Integrity (E)	Integrity & insulation (EI)
PVC-U pipes (EN 1329-1, EN 1452-2, EN 1453-1)	20–38	3	Select nearest collar size equal to or greater than pipe ouside diameter (see pipe collar dimensions table)	240	240
	42–55	2		180	180
	60–82	3.2		180	180
	90–110	6.6		180	180
	125–160	9.5		180	180
	90–110*	3.2		90	90
PE pipes (EN 1519-1, EN 12201-2, EN1266-1) ABS pipes (EN 1455-1) SAN+PVC pipes (EN 1565-1)	20–40	3.7		180	180
	42–110	8.2		240	240
	125–160	6.2		180	180
MLCP pipes	16	2		240	240
	20–40	4		60	60

Collars reversed and cast into floor using Firebreak Compound.

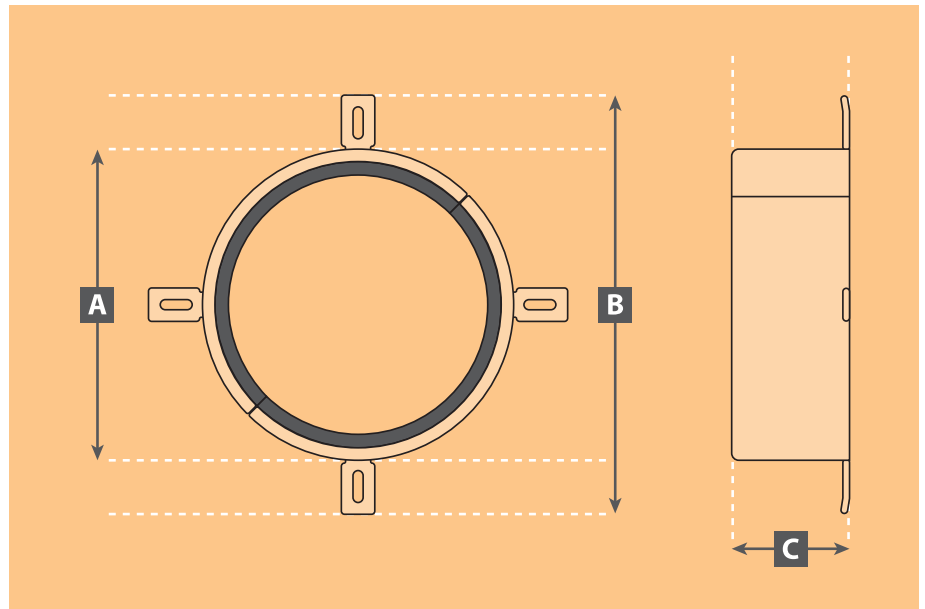**Note:** *For larger pipe sizes please refer to the FX500 technical data sheet.*

Firebreak FX400 Pipe Collars in partitions or masonry/concrete walls of minimum thickness 100mm

Penetrating service	Pipe outside diameter (mm)	Pipe wall thickness (mm)	Collar size	Fire performance (mins)	
				Integrity (E)	Integrity & insulation (EI)
PVC-U pipes (EN 1329-1, EN 1452-2, EN 1453-1)	20–38	3.0–3.2	Select nearest collar size equal to or greater than pipe ouside diameter (see pipe collar dimensions table)	120	120
	42–82	3.2		120	120
	90–100	6.6		120	120
	125–160	3.2–9.5		120	120
PE pipes (EN 1519-1, EN 12201-2, EN1266-1) ABS pipes (EN 1455-1) SAN+PVC pipes (EN 1565-1)	20–38	3.7–4.6		120	120
	42–50	4.6		120	120
	55–90	5.1		120	120
	110	6.2		120	120
	125–160	7.0		120	120
PP (DIN 8077/8078, EN ISO 15494)	20–40	6.8		120	90
	20–40	6.8		120	120
	42–75	6.8		120	60
MLCP pipes	20–32	3.0		120	90
	38–50	4.5		120	15*
PVC-U pipes + 19mm continuous combustible nitrile rubber insulation	50	2.0		120	90
PVC-U pipes + 25mm continuous combustible nitrile rubber insulation	50	2.0		120	120
Copper/steel pipes + 19mm continuous combustible nitrile rubber insulation	20–54	0.8–14.2		120	90
Telecoms cables bunch (</= 21mm)	Up to 100	N/A		120	90
Telecoms cables bunch (</= 21mm) + 300mm wide Insulwrap**	Up to 100	N/A		120	120

* Insulation performance of the aluminium composite pipe may be improved by the addition of a short (500mm) length of pipe insulation after the collar.

**Insulwrap is a 300mm wide x 5mm thick foil-faced insulating wrap. It is fixed around the services on both sides of a seal in a single layer to increase the fire performance of the seal.
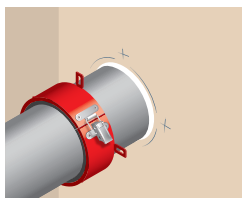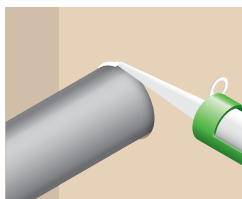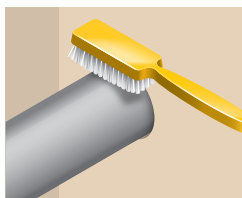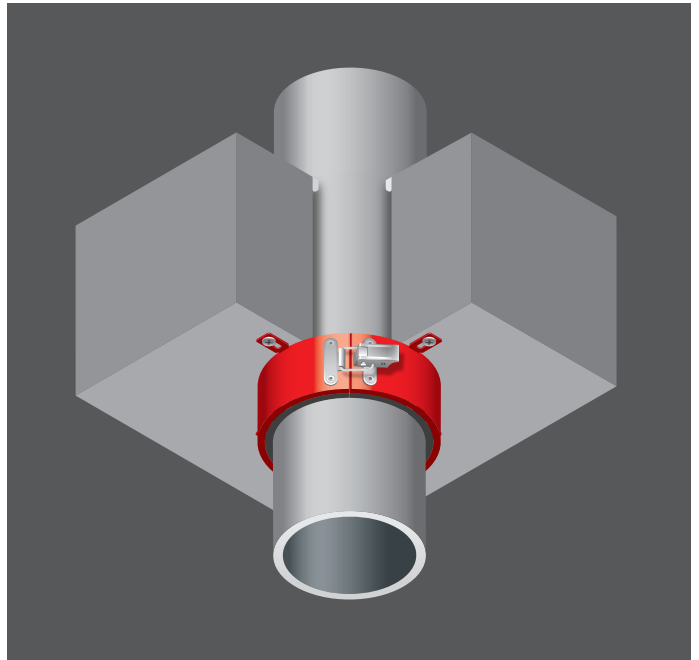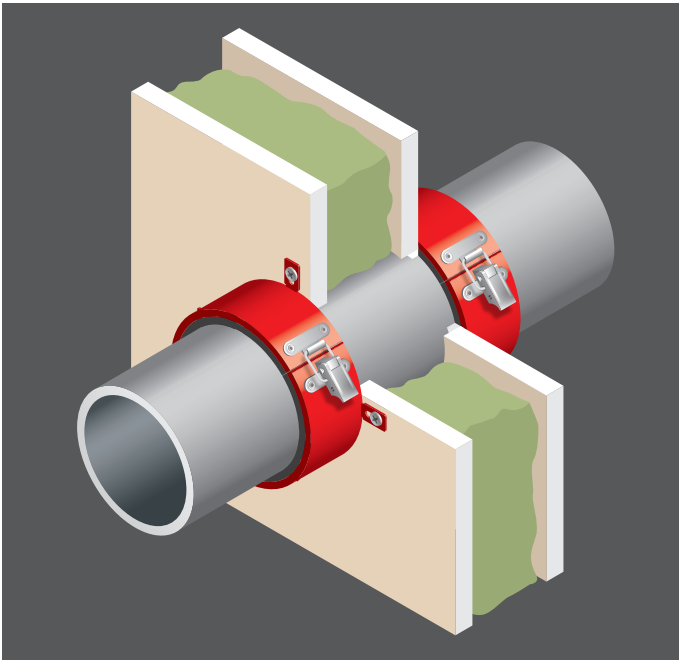
Note: For larger pipe sizes please refer to the FX500 technical data sheet.

Firebreak FX400 Pipe Collar dimensions (nominal)

Pipe size (mm)	Collar designation	Shell fixing	Collar finish	Ouside diameter (mm) A	Diameter including fixing lugs (mm) B	Height (mm) C	Number of fixing lugs
22	MC	Slide	Stainless steel	33	77	52	2
25	MC	Slide	Stainless steel	36	80	52	2
32	MC	Slide	Stainless steel	41	85	52	2
38	MC	Slide	Stainless steel	47	91	52	2
42.2	MC	Slide	Stainless steel	51	95	52	2
46	MC	Slide	Stainless steel	58	102	52	2
48.3	MC	Slide	Stainless steel	60	104	52	2
50	MC	Slide	Stainless steel	61	105	52	2
55	PC	Hinge	Powder coating	68	112	52	4
55	Z	Slide	Zinc	68	112	52	4
60	Z	Slide	Zinc	75	120	52	4
63	Z	Slide	Zinc	78	123	52	4
65	Z	Slide	Zinc	80	125	52	4
75	Z	Slide	Zinc	90	135	52	4
82	PC	Hinge	Powder coating	99	143	52	4
82	Z	Slide	Zinc	99	143	52	4
90	Z	Slide	Zinc	109	143	52	4
110	PC	Hinge	Powder coating	131	181	52	4
110	Z	Slide	Zinc	131	18	52	4
114.3	Z	Slide	Zinc	133	177	52	4
125	PC	Hinge	Powder coating	148	193	62	4
125	Z	Slide	Zinc	148	193	62	4
140	PC	Hinge	Powder coating	162	207	62	4
140	Z	Slide	Zinc	162	207	62	4
160	PC	Hinge	Powder coating	185	235	62	4
160	Z	Slide	Zinc	185	235	62	4

Slotted opening in fixing lugs is 6mm wide and suitable for use with M5 steel fixings.

Installation

- Ensure contact surface for collar is flat and free from obstructions

- Clean away all dirt and loose materials

- Seal any gaps around the pipe using Firebreak 22 Fire Resistant & Acoustic Sealant or Firebreak Compound to maximise acoustic and cold smoke seal performance

- Select suitable steel fixings which do not rely on plastic components for grip (i.e. 50mm x M5 steel masonry screws with penny washers, 50mm x M5 'thru type' sleeve anchors, M5 spring toggle or hollow wall anchors)

- Where holes for fixings need to be pre-drilled, place the collar around the pipe and mark the fixing positions on the wall/floor through the fixing tabs before removing and drilling suitably sized holes

- Fix the collar around the pipe using the slide lock or toggle latch and position against the surface aligning the holes in the fixing tabs with the pre-drilled holes as appropriate

- Complete the mechanical fixing to the surface using the selected steel fixings

NOTE: Collars should be fixed to both sides of walls and to the underside of floors only.

End use considerations

Whilst Firebreak FX400 Collars are intended for internal use, they have been subjected to mechanical and durability testing and the intumescent components are not affected by moisture. The collars are also suitable for use at temperatures below 0°C.

Maintenance

No routine maintenance is required although periodic inspection for possible damage is recommended.

Storage

It is recommended to store in dry conditions between 5°C and 40°C.

Shelf life

Shelf life is unlimited when stored under recommended storage conditions.

Health and safety

Please refer to safety data sheet before use.

Since the product is applied under circumstances beyond our control, Neutron Fire Technologies Limited 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.

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