

Technical Insulation

Passive Fire Protection
Great Britain & Ireland

K-Stop® Pipe Collar

Technical Data Sheet

Description

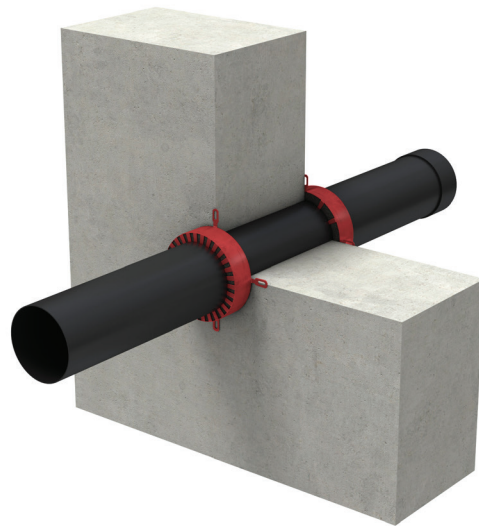
Kingspan K-Stop® Pipe Collar is designed to maintain the fire resistance of fire rated walls and floors where these are breached by service penetrations.

Each pipe collar consists of a red coated circular steel shell that splits in two to fit around the service penetrations by means of a simple 'slide-lock' system.

The steel shell contains a graphite based reactive material which reacts when exposed to heat closing the openings left by the softening plastic pipe in fire.

General Properties

- Fast expanding graphite material.
- For pipe sizes from smallest pipes available to Ø400 mm with a wide range of pipe wall thicknesses.
- Collars comes in two different heights for different fire classifications to maximize cost efficiency.
- Smaller pipes can be fitted within larger collars with the benefit of accommodating pipes that are at an angle or if the opening around the pipe is too large.
- Fire classifications up to 4 hours for both integrity and insulation depending on application.
- Certified for PVC-U, PVC-C, PE, LDPE, MDPE, HDPE, ABS, SAN+PVC and PP pipes.
- Tested and certified for U/U pipe end applications.
- Classified for fire sealing of building service penetrations.
- Provides good sound insulation.
- Simple to install using widely available standard screws.
- Unlimited storage time (under correct conditions).
- 25 years working life.



Sound Insulation

Description	Sound Reduction (Rw)
Collars installed as described in walls	58 dB

The sound insulation value is only valid for the collar / pipe and not for other elements in the building construction.

The sound insulation has been tested by the accredited laboratory Exova BM Trada in Great Britain according to BS EN ISO 10140-2: 2021* (Acoustics. Laboratory measurement of sound insulation of building elements - Measurement of airborne sound insulation). Test report is available upon request.

* And all previous editions.

K-Stop® Pipe Collar

Pipe End Configurations

When testing pipes, one can choose not to cap (or close) the pipe, or cap the pipe inside the furnace, or outside the furnace, or on both sides. The configuration chosen depends on the intended application of the pipe and/or the installation environment. The code defining if a pipe is capped is stated after the fire classification. For instance, EI 60 C/U which means the pipe was capped inside the furnace, and uncapped outside the furnace. The test configuration defines the approvals possible.

Our engineering judgment based on BS EN 1366-3: 2021* (Fire resistance tests for service installations - Penetration seals) are:

Intended Use of Pipe		Pipe End Condition ⁴⁾
Rainwater pipe, plastic	At drainage	U/U ¹⁾
	Not at drainage	C/C ²⁾
Drainage or sewage pipe, plastic	Ventilated drain	U/U ¹⁾
	Unventilated drain	U/C ¹⁾
	Drain w/water trap	U/C ¹⁾
	Not at drainage	C/C ²⁾
Pipe in closed circuit (water, gas, air, electricity etc.)		C/C ^{2) 3)}
Flue gas recovery system pipe, plastic		U/C ¹⁾
Pipe with open ends and ≥ 50cm length on both sides, plastic		U/U ²⁾
Pipe supported by suspension system, metal	Fire rated support	C/U ¹⁾
	Non-fire rated	U/C ¹⁾
Waste disposal shaft pipe, metal		U/C ¹⁾

¹⁾ Suggested in BS EN 1366-3: 2021*.

²⁾ Kingspan's judgment based on tests.

³⁾ Metal pipes should have fire rated support.

⁴⁾ U/U classified fire seals cover C/U, U/C and C/C. C/U classified fire seals cover U/C and C/C. U/C classified fire seals cover C/C.

* And all previous editions.

Sizes and Packaging

Product Diameter and Height	Quantity / Box
K-Stop® Pipe Collar Ø32 / 30 mm	24
K-Stop® Pipe Collar Ø32 / 50 mm	24
K-Stop® Pipe Collar Ø40 / 30 mm	24
K-Stop® Pipe Collar Ø40 / 50 mm	24
K-Stop® Pipe Collar Ø55 / 30 mm	24
K-Stop® Pipe Collar Ø55 / 50 mm	24
K-Stop® Pipe Collar Ø63 / 30 mm	24
K-Stop® Pipe Collar Ø63 / 50 mm	24
K-Stop® Pipe Collar Ø75 / 30 mm	24
K-Stop® Pipe Collar Ø75 / 50 mm	24
K-Stop® Pipe Collar Ø82 / 30 mm	24
K-Stop® Pipe Collar Ø82 / 50 mm	24
K-Stop® Pipe Collar Ø90 / 50 mm	24
K-Stop® Pipe Collar Ø90 / 30 mm	24
K-Stop® Pipe Collar Ø110 / 50 mm	24
K-Stop® Pipe Collar Ø110 / 30 mm	24
K-Stop® Pipe Collar Ø125 / 60 mm	20
K-Stop® Pipe Collar Ø140 / 60 mm	12
K-Stop® Pipe Collar Ø160 / 60 mm	12
K-Stop® Pipe Collar Ø200 / 60 mm	2
K-Stop® Pipe Collar Ø250 / 75 mm	2
K-Stop® Pipe Collar Ø315 / 75 mm	2
K-Stop® Pipe Collar Ø400 / 100 mm	1

Technical Data

Condition	Ready for use, steel shell with a graphite material
Shell	Powder coated 1 mm steel
Conditioning Procedure	BS EN 13238: 2010 (Reaction to fire tests for building products. Conditioning procedures and general rules for selection of substrates)
Expansion Ratio	17:1
Expansion Pressure	65.4 N
Graphite Weight	1.4 kg/m ² per mm thickness
Graphite Density	1409 kg/m ³
Normal Expansion Time	Less than 2 minutes
Minimum Expansion Temperature	105 °C
Durability	Z ₂ intended for use in internal conditions with humidity classes other than Z ₁ , excluding temperatures below 0 °C
Life	Under normal conditions; 30 years
Storage	To be stored in temperatures between 5 °C and 30 °C
Installation Temperature	+5 °C to +50 °C (sealant) and -20 °C to +50 °C (collar)
Service Temperature	-20 °C to +70 °C (sealant) and -40 °C to +80 °C (collar)
Colour	Red shell with anthracite inlay

Contact Details

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