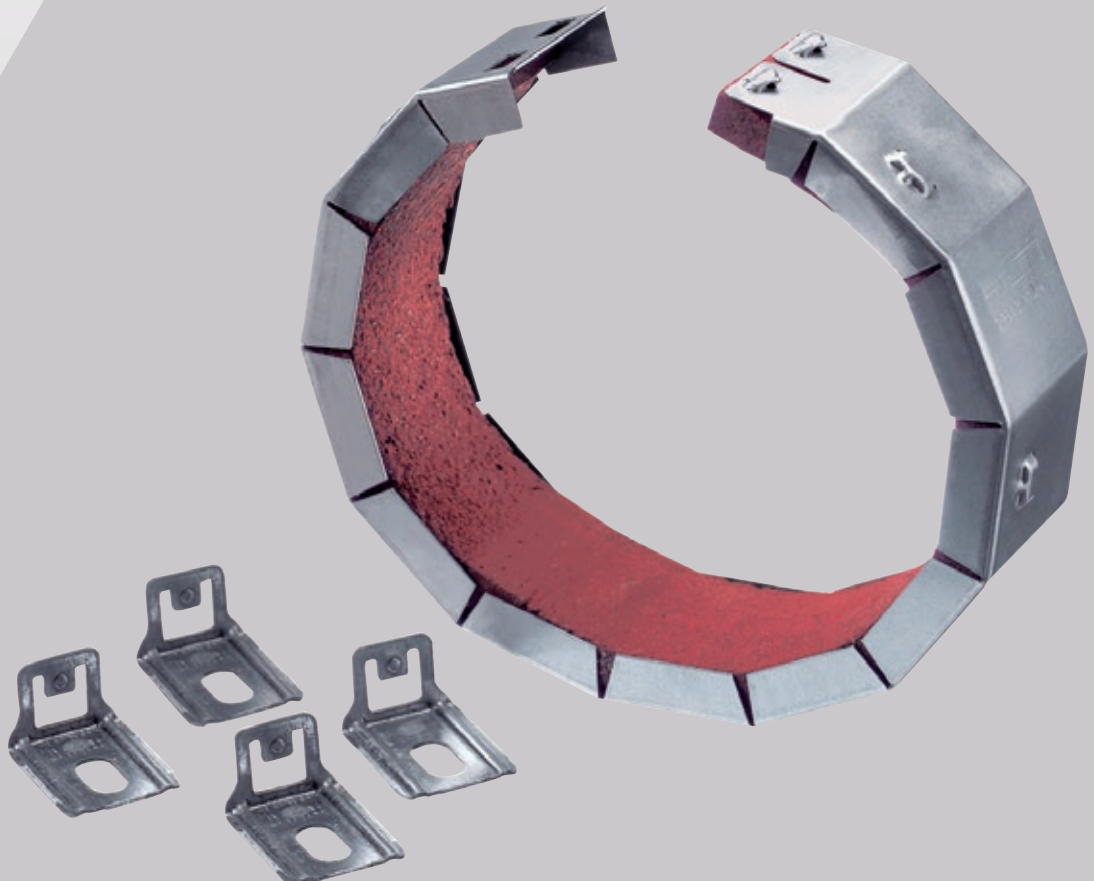




FIRESTOP COLLAR CFS-C P

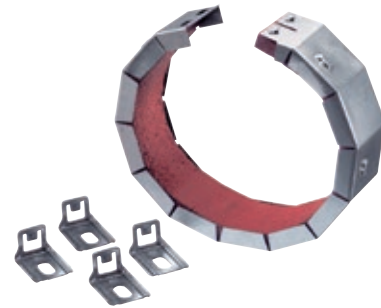
Technical Manual

European Technical Assessment
ETA-10/0404



HILTI FIRESTOP COLLAR CFS-C P

Firestopping for flammable pipes up to 250 mm in diameter with European Technical Approval.



Applications

- Sealing flammable pipes from 32 mm to 250 mm in diameter in penetrations through fire compartment walls and floors
- Pipe materials: PVC-C, PVC-U, PE, PE-HD, PE-X, PE-S2, PP, PP-R, ABS, Al-composite
- Suitable for use in openings in concrete, aerated concrete, masonry, drywall and in combination with coated board
- Different backfilling and sealing materials are covered

Advantages

- Quick and easy closure without use of a tool
- Adjustable position tabs for simple fastening
- Sound decoupling strip based on PE (foam) can be used
- Low profile for tight installations

Technical Data

Base materials	Concrete, Masonry, Drywall
Minimum wall thickness	100 mm
Minimum floor thickness	150 mm
Storage and transportation temperature – range	–5° C to 50° C
Application temperature range	–5° C to 50° C
Temperature resistance range	–20° C to 100° C
Closure of annual gap	Gypsum plaster, cementitious mortar, Hilti Firestop Acrylic Sealant CFS-S ACR



Nominal pipe diameter	Number of hooks and fasteners	Order designation	Sales quantity	Item number
50 mm	2	Firestop Collar CFS-C P 50/1.5"	1 pc	435406
63 mm	2	Firestop Collar CFS-C P 63/2"	1 pc	435407
75 mm	3	Firestop Collar CFS-C P 75/2.5"	1 pc	435408
90 mm	3	Firestop Collar CFS-C P 90/3"	1 pc	435409
110 mm	4	Firestop Collar CFS-C P 110/4"	1 pc	435410
125 mm	4	Firestop Collar CFS-C P 125/5"	1 pc	435411
160 mm	6	Firestop Collar CFS-C P 160/6"	1 pc	435412
180 mm	8	Firestop Collar CFS-C P 180/7"	1 pc	435413
200 mm	8	Firestop Collar CFS-C P 200/8"	1 pc	435414
225 mm	10	Firestop Collar CFS-C P 225/9"	1 pc	435415
250 mm	12	Firestop Collar CFS-C P 250/10"	1 pc	435416

INSTRUCTION FOR USE: CFS-C P

QR
www.hilti.group
EN:
<http://fsselector.hilti.com>

1

A

B

2

3

4.1

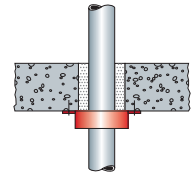
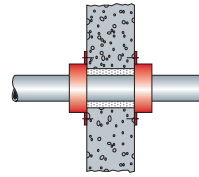
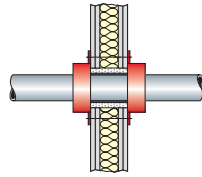
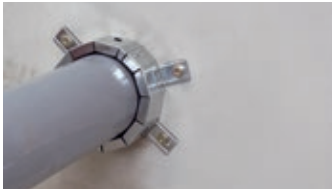
4.2

4.3

5

	CFS-C P-50/1.5" - 2 CFS-C P-63/2" - 2
	CFS-C P-75/2.5" - 3 CFS-C P-90/3" - 3
	CFS-C P-110/4" - 4 CFS-C P-125/5" - 4
	CFS-C P-160/6" - 6

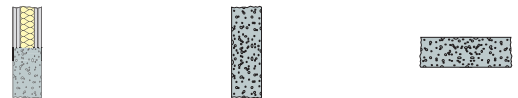
GENERAL INFORMATION



Partition	Flexible Wall	Rigid Wall	Rigid Floor
Base material thickness (t_E) density	≥ 100 mm	≥ 100 mm ≥ 450 kg/m ³	≥ 150 mm ≥ 2400 kg/m ³
Minimum seal depth	25 mm CFS-S ACR	15 mm CFS-S ACR	10 mm CFS-S ACR
Fixing to wall	M8 threaded rods + nuts	HUS, DBZ, HAS Ø ≥ 6 mm for collar up to 110 mm, Ø ≥ 10 mm larger collars	
Gap filler	CFS-S ACR, gypsum, cementitious mortar		CFS-S ACR with backfilling, gypsum, cementitious mortar
Penetrant	PVC-C, PVC-U, PE, PE-HD, PE-X, PE-S2, PP, PP-R, ABS, Al-composite		

Note: Opening diameter should not be larger than the collar outside diameter to allow a safe fixing of collar to wall/floor.

MAIN APPROVED APPLICATIONS



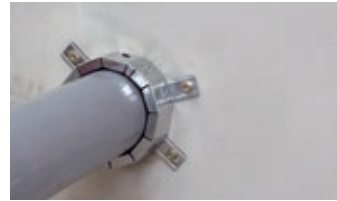
Applications	Pipe material	Pipe Ø (mm)	Flexible & rigid wall ≥ 100 mm	Rigid wall ≥ 150 mm	Rigid floor
Waste water 	PVC-U (EN ISO 1452, EN 1329-1, EN 1453-1) and PVC-C (EN 1566-1)	50 – 160		EI 120 U/U	EI 120U/U
		180 – 250	-	EI 180 U/U	
	PE PE (EN 1519, EN 12666-1), ABS and PE-HD	50 – 160		EI 120 U/U	EI 120 U/U
		200 – 250	-	EI 120 U/U	
	PP (EN 1451-1, DIN EN 12056)*	32 – 110		EI 120 U/U	EI 90U/U
		125 – 160	-	-	
Industry 	PVC-U (EN ISO 15493, DIN 8061/8062)	50 – 160		EI 120 U/U	EI 120 U/U
		180 – 250	-	EI 180 U/U	
	PE (EN ISO 15494, DIN 8074/8075)	50 – 160		EI 120 U/U	EI 120 U/U
		180 – 200	-	EI 120 U/U	
	PP (DIN 8077/8078)	200 – 250	-	EI 180 U/U	EI 120 U/C
		50		EI 90 U/U	
Potable water 	PP (DIN 8077/8078)	63		EI 60 U/U	EI 180 U/U
		75 – 110		EI 120 U/U	
		110 – 125	-	-	
	PP (EN ISO 15874, DIN 8077/8078)	50		EI 90 U/U	EI 120 U/U
		63		EI 60 U/U	
		75 – 110		EI 120 U/U	
PE (EN 12201-2)	110 – 125	-	-	EI 180 U/U	
	50 – 160		EI 120 U/U		
		200 – 250	-	EI 120 U/U	EI 120 U/U

* e.g. Magnaplast (R); Skolan dB (R), Phonex AS (R); Pipelife (R); Master 3 (R); POLOPLAST (R); Polo Kal NG (R); POLOPLAST (R); Polo Kal 3 S (R); Rehau (R), Raupiano Plus (R), Wavin (R); AS (R)/KeKelit (R); Phonex AS (R); Wavin (R); SiTech (R). Cloes (R); Blue Power (R), Cloes (R); PhoNoFire (R), Valsire (R); Triplus (R), Valsire (R); Silere (R), Geberit (R); Silent PP (R)

Excerpt of ETA document. Check the exact field of application (pipe types and diameters, pipe types, diameters and wall thickness, insulations types) in the ETA 10/0404 document.

OTHER APPROVED APPLICATIONS

Wide range of branded plastic pipes through walls and floors approved



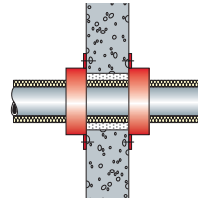
See ETA 10/0404 for list of approved pipes (+GF+, Aquatherm, Geberit, KeKelit, Magnaplast, Pipelife, POLOPLAST, Rehau, Wavin)

Pre-insulated pipes through walls and floors. PE-HD pipes (+GF+ Cool-Fit) with ABS/PUR insulation



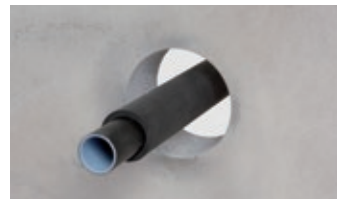
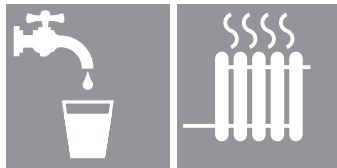
See ETA 10/0404 for list of approved pipe sizes from +GF+ Pipings Systems

Plastic and Composite pipes with Armaflex AF insulation through walls and floors



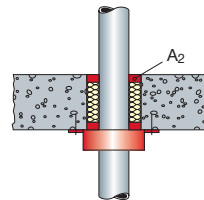
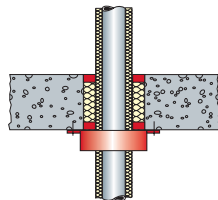
See ETA 10/0404 for list of approved pipes and configurations. PE, PP, branded (Aquatherm Wavin Friatec Rehau +GF+ Geberit Ke Kelit...)

Composite pipe (PE-Xb/Al/ PE-HD e.g. Geberit Mepla) approved through rigid floor and wall



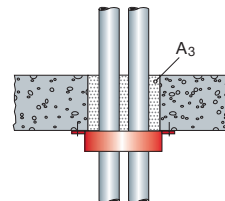
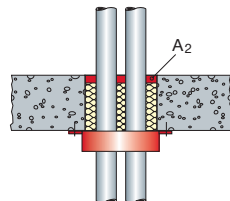
See ETA 10/0404 for list of approved pipes and configurations. Ø 40, 50, 63 and 75mm

Approved configurations with 550 kg/m³ rigid floors. Insulated and non-insulated pipes.



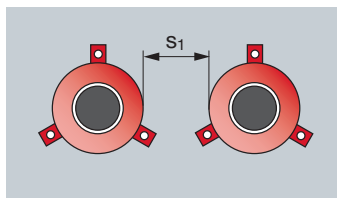
See ETA 10/0404 for list of approved pipes. Pre-insulated plastic pipes, PVC-U, PE, PP and various branded pipes

2 pipes in single collar configurations through rigid floors



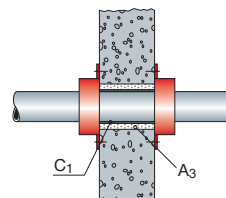
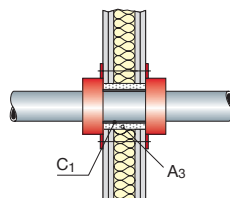
See ETA 10/0404 for list of approved pipes and configurations. PE EN 15494 or DIN 8074/5 2 x Ø 20mm

Zero distance between collars S₁ = 0



See ETA 10/0404 for details of approved pipes and configurations

Sound decoupling strip (C₁) to be used with Gypsum or Mortar as gap filler (A₃) to improve acoustic performances.



PE foam sound decoupling strips. Maximum allowed thickness ranges from 5 mm to 9 mm depending on the configuration. See ETA 10/0404 for more details

CHARACTERISTICS OF FIRESTOP COLLAR CFS-C P

Characteristics	Assessment of characteristics	Norm, standard, test
Health and the environment Air permeability (tightness) Water permeability	Airtightness can be achieved up to 250 Pa when annular gap is sealed with a sealant e.g. Hilti Firestop Acrylic Sealant CFS-S ACR (10 mm thick) or Hilti Firestop Mastic Filler CFS-FIL (10 mm thickness).	EN 1026
	Watertight to 1 m head of water up to 3 days for Hilti Firestop Acrylic Sealant CFS-S ACR.	ETAG 026-2
Dangerous substances	CFS-C P does not contain dangerous substances detailed in Council Directive 67/548/EEC and Regulations (EC) no 1272/2008 as well as EOTA TR 034, edition March 2012 above the acceptable limits.	Material safety data sheet
Protection against noise (Airborne sound insulation)	The following airborne sound insulation for a single penetration of plastic pipe firestopped with Hilti Firestop Collar CFS-C P can be achieved when the annular gap is sealed. With Hilti Firestop Acrylic Sealant CFS-S ACR with mineral wool back filling: Flexible wall $R_w = 53 \text{ dB}$ $D_{n,w} = 60 \text{ dB}$ Rigid wall $R_w = 51 \text{ dB}$ $D_{n,w} = 58 \text{ dB}$ With cementitious mortar: Rigid wall $R_w = 52 \text{ dB}$ $D_{n,w} = 59 \text{ dB}$	EN ISO 140-3 EN ISO 20140-10 EN ISO 717-1
Durability and serviceability	Category Z ₂ (suitable for penetration seals intended for use in dry indoor conditions excluding temperatures below 0° C).	ETAG 026-2
Reaction to fire	Class E	EN 13501-1



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