



PRODUCT PACK

CFS-FIL: Filler mastic

ETA – 21/0256

TECHNICAL DATA ➤

APPLICATIONS ➤

CHANGE LOG ➤



CFS-FIL FILLER MASTIC

A water-based acrylic intumescent firestop sealant for small to medium-sized cables and CPVC pipe penetrations.



APPLICATIONS

- For use within concrete, masonry rigid walls
- For use with small to medium sized cables
- For use with CPVC pipes
- For use with CFS-BL firestop block
- For use with CFS-BL P firestop block
- For use with CFS-PL firestop plug
- For use with CFS-CC firestop cable collar
- For use with CFS-RCC firestop cable collar

ADVANTAGES

- Solvent free sealant, easy to clean up
- Simple adding of cables later on
- Low shrinkage of sealant
- Paintable with most paints

Technical data

Chemical basis	Water-based acrylic sealant
Movement	±7.5%
Intumescent	Yes
Approx. cure time (at 23°C/50% r.H):	~ 2 mm / 72h
Application temperature range	1.5°C - 40°C
Storage and transportation temperature – range	5 °C - 25 °C
Paintable	Yes
LEED VOC	9 g/L
Approvals	ETA-21/0256



Packaging	Volume	Colour	Order designation	Sales quantity	Item number
Cartridge	310 ml	Red	Firestop filler mastic CFS-FIL	1 pc	2052899

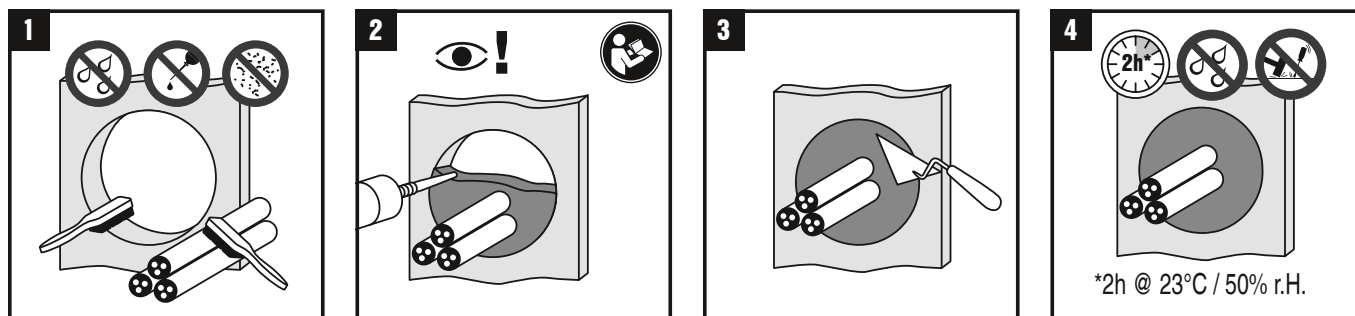
INSTALLATION INSTRUCTIONS



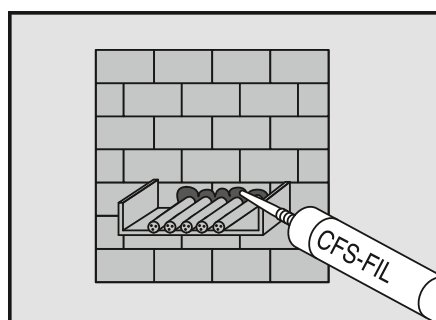
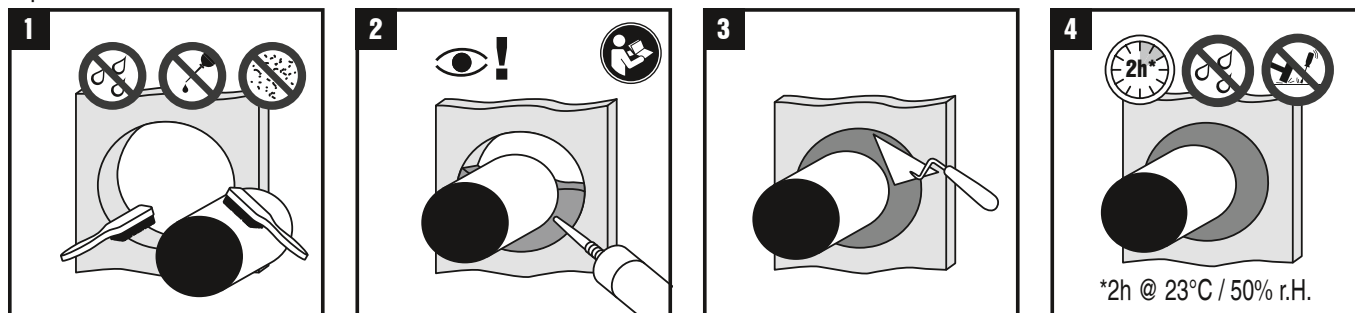
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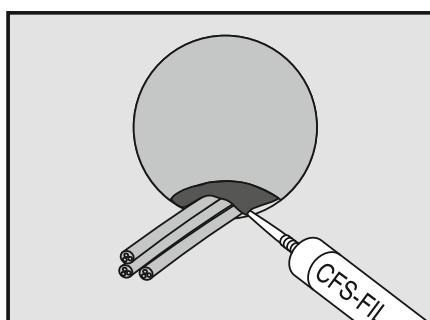
Cables



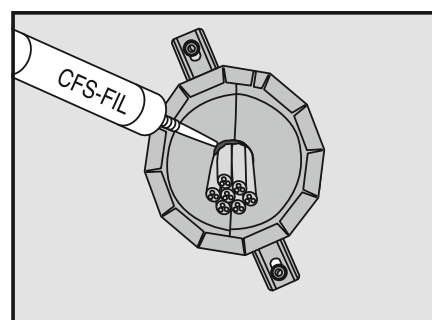
Pipes



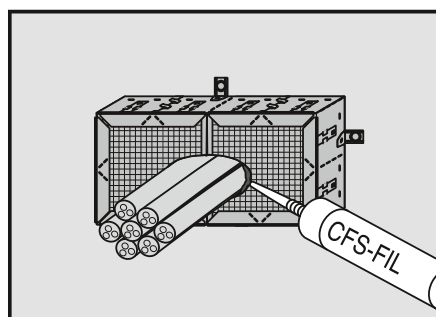
CFS-BL / CFS-BL P



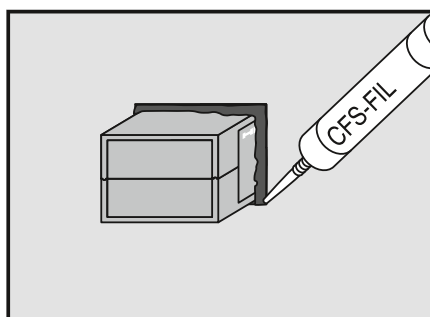
CFS-PL



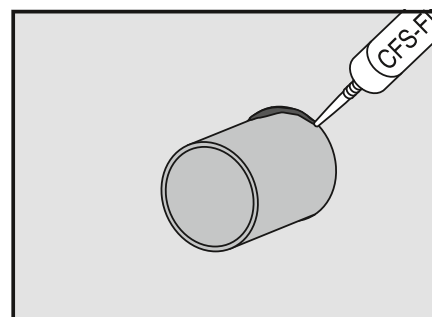
CFS-CC



CFS-RCC



CFS-MB



CFS-C EL

APPLICATION INFORMATION

FOR PIPES/CABLE DIAMETERS

S = Single pipe/cable*

B = pipe/cable Bundle

*For pipes, if no S or B, assume single pipe.

FOR INSULATION

N-C = Non-Combustible (e.g., stone wool etc.)

C = Combustible (e.g., Armaflex, phenolic etc.)

None = No insulation

LS = Local Sustained

LI = Local Interrupted

CS = Continuous Sustained

CI = Continuous Interrupted

Please note, in many cases details have numerous pages. Please check all pages for the necessary information as differing insulation layouts might be on differing pages (e.g., LS one page 1 and LI on page 2 etc.).

PENETRATION TYPE

Single = penetration seal intended for penetrations with only one service passing through

Multi = penetration seal intended for penetrations where more than one service of the same type (e.g. cables) or pipe material group pass through

Mixed = penetration seal intended for penetrations where more than one type of services (e.g. cables and pipes or pipes of different pipe material groups) pass through

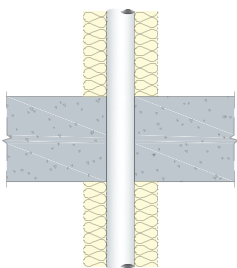
CLASSIFICATION

Classification will give the best-case EI value possible. As such, check each specific detail as there may be instances where a higher I value is possible or another sized service within the application may attain a lower value (e.g., 110mm pipe achieves EI 120 but a 160mm pipe achieves EI 90).

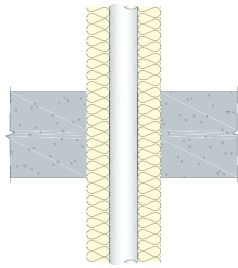
PRODUCT/DETAIL

Full product name first/Detail ID (See specific detail for the full ID).

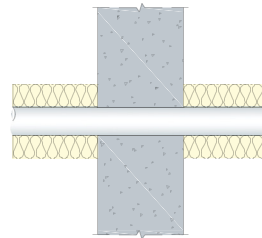
Please note, in many cases details have numerous pages. Please check all pages for the necessary information.



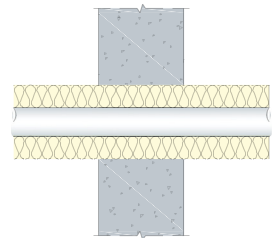
Continued Interrupted (CI)



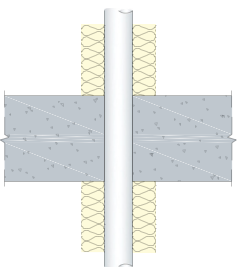
Continued Sustained (CS)



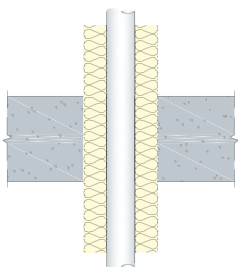
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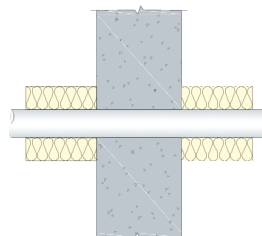
Continued Sustained (CS)



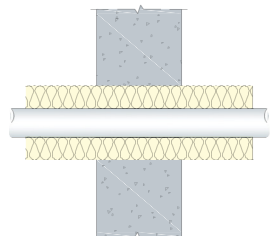
Local Interrupted (LI)





Local Sustained (LS)





Local Interrupted (LI)



Local Sustained (LS)

Single board drywall	Double board drywall	Rigid wall	Timber wall	Sandwich panel	Rigid floor	Timber floor	Metal deck	Linear joints		
Mechanical			Electrical			HVAC				
Min. base material thickness	Pipes ¹		Insulation ¹			Penetration type ¹			Classification ¹	Product/Detail ¹
	Material	Size	N/C	C	None	Single	Multi	Mixed		
	≥ 100	CPVC (Blazemaster)	Ø ≤ 60.3		✓	✓			EI 120	FIL:RW-M-01 
	≥ 100	CPVC (Spears EverTuff)	Ø ≤ 53.98		✓	✓			EI 120	FIL:RW-M-01 



Single board drywall	Double board drywall	Rigid wall	Timber wall	Sandwich panel	Rigid floor			Timber floor	Metal deck	Linear joints
Mechanical			Electrical					HVAC		
Min. base material thickness	Electrical service				Penetration type ⁱ			Classification ⁱ	Product/Detail ⁱ	
	Service	Max. Diameter (Ø) or Size (H x W)		Insulation	Single	Multi	Mixed			
	≥ 100	Single Cables	≤ 21			✓	✓	EI 90	FIL:RW-E-01 	
	≥ 100	Cable Bundles	≤ 46			✓	✓	EI 90	FIL:RW-E-01 	



Single board drywall	Double board drywall	Rigid wall	Timber wall	Sandwich panel	Rigid floor	Timber floor	Metal deck	Linear joints
Mechanical			Electrical			HVAC		
Min. base material thickness	Electrical service		Penetration type ⁱ			Classification ⁱ	Product/Detail ⁱ	
	Service	Max. Diameter (Ø) or Size (H x W)	Insulation	Single	Multi			Mixed
	≥ 150	Single Cables	≤ 21		✓	✓	EI 120	FIL:RF-E-01
	≥ 150	Cable Bundles	≤ 46		✓	✓	EI 120	FIL:RF-E-01



Single board drywall	Double board drywall	Rigid wall	Timber wall	Sandwich panel	Rigid floor	Timber floor	Metal deck	Linear joints		
Mechanical			Electrical			HVAC				
Min. base material thickness	Pipes ¹		Insulation ¹			Penetration type ¹			Classification ¹	Product/Detail ¹
	Material	Size	N/C	C	None	Single	Multi	Mixed		
≥ 75	cPVC (Blazemaster, Spears EverTuff)	Ø ≤ 48.3			✓	✓			≤ EI 60	FIL-FW/RW-75-M-01 ²



FIL: SP-RF-E-01

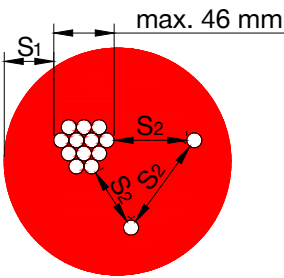
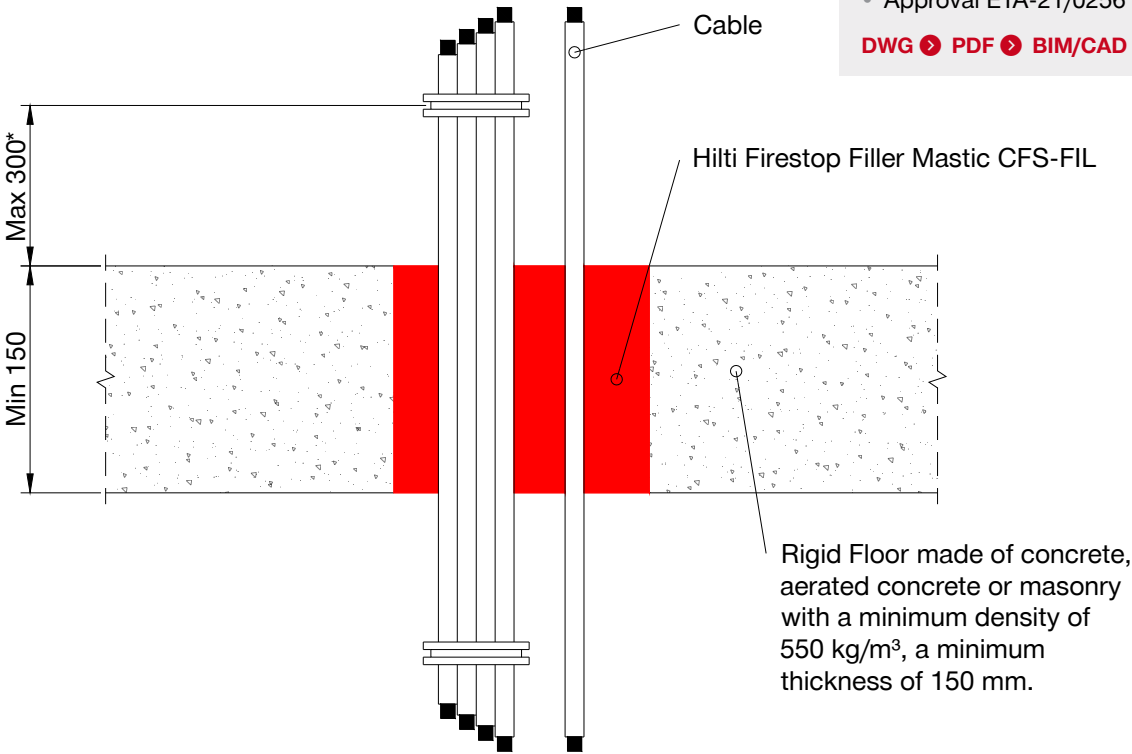
CABLES THROUGH RIGID FLOORS

Fire rating up to EI 120

Information

- Not to scale
- All units are in millimetres
- Tested according EN 1366-3
- Approval ETA-21/0256

[DWG](#) [PDF](#) [BIM/CAD](#) [Web](#)



Minimum distances between the services	
Single/multiple cable(s) to single/multiple cable(s)	$S_2 = 0$
Single/multiple cable(s) to edge of aperture	$S_1 = 0$
Minimum distances between the penetrations	
Cable or multiple cable penetration and other services	200

Cable type ²	Fire class
Single cable diameter up to Ø 21	EI 120
Multiple cables (single cable diameter max. Ø 21 mm. small cables), up to a bundle of Ø 46 mm with zero distance between the cables	EI 120

* First support and ancillary products should be capable of achieving the same fire performance as the seal and supporting structure.
² The total amount of cross sections of the cables (core and insulation) does not exceed 60% of the penetration area.

1. The application limits on this detail are for guidance purposes only. For more detailed information based on the full range of available test results please contact the Hilti Technical Advisory Service.
 2. The product and application has been assessed as a minimum to the BS 476 standard. It may have additional European and worldwide testing. Please contact Hilti for further information.
 3. All installations should be carried out in accordance with Hilti's installation instructions and by competent & experienced installers using Hilti branded products.
 4. All services are to be correctly and adequately supported to prevent collapse and distortion.

FIL: SP-RW-E-01

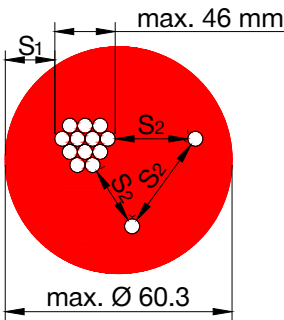
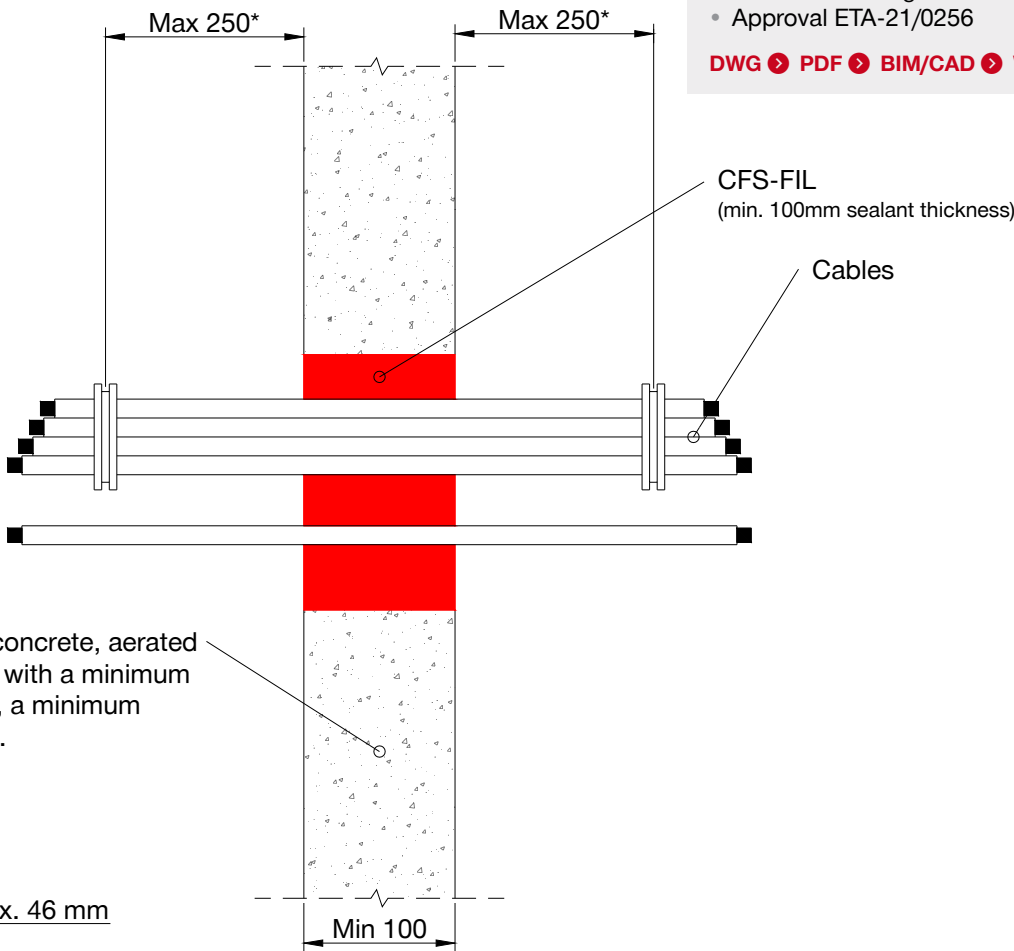
CABLES THROUGH RIGID WALL

Fire rating up to EI 90

Information

- Not to scale
- All units are in millimetres
- Tested according to EN 1366-3
- Approval ETA-21/0256

DWG PDF BIM/CAD Web



Minimum distances between the services

Single/multiple cable(s) to single/multiple cable(s)	$S_2 = 0$
Single/multiple cable(s) to edge of aperture	$S_1 = 0$

Minimum distances between the penetrations

Cable or multiple cable penetration and other services	200
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Cable type ¹	Fire class
Single cable diameter up to Ø 21	EI 90/E 120
Multiple cables (single cable diameter max. Ø 21 mm. small cables), up to a bundle of Ø 46 mm with zero distance between the cables	EI 90/E 120

¹ The total amount of cross sections of the cables (core and insulation) does not exceed 60% of the penetration area.

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[Back](#)

FIL: SP-RW-M-01

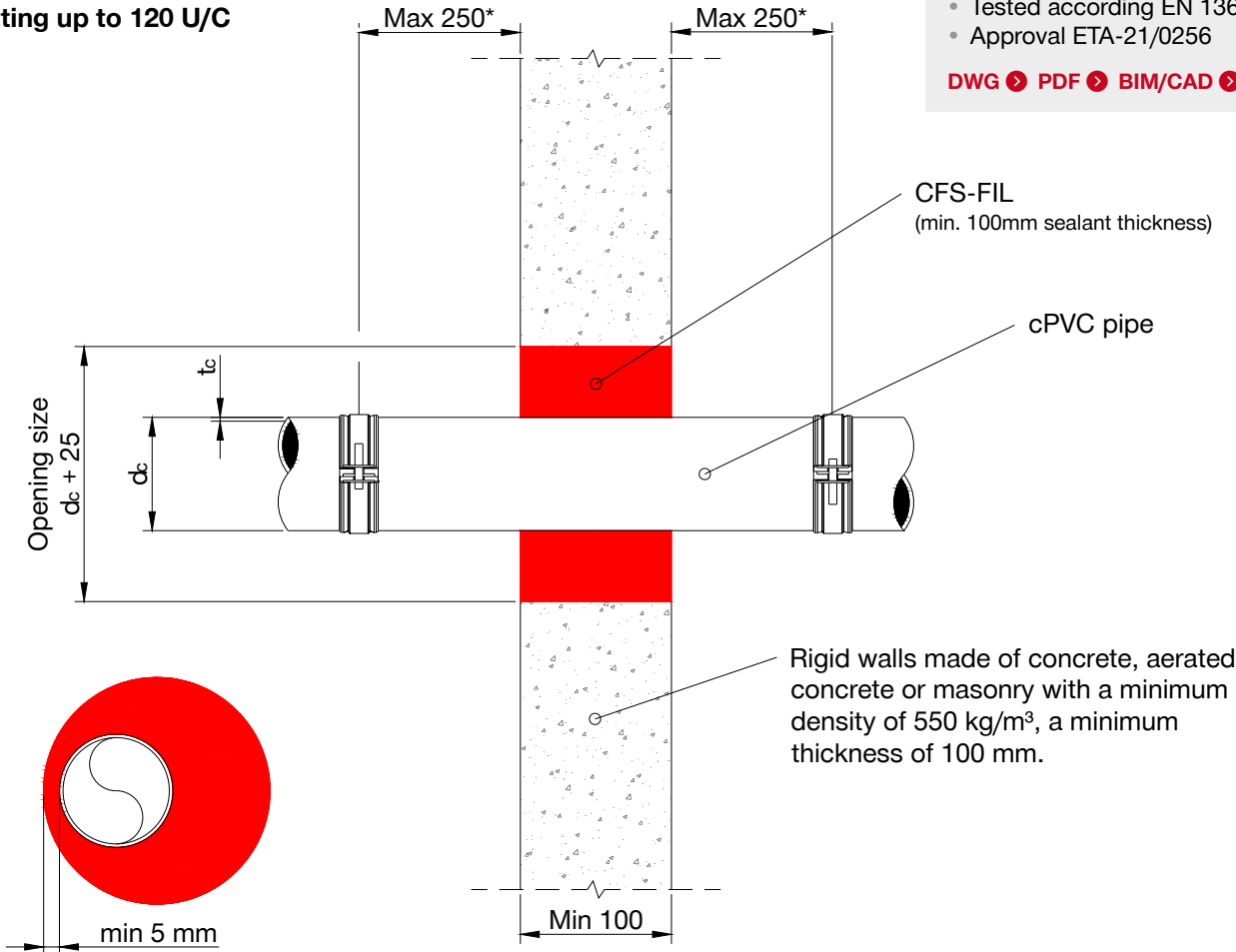
CPVC PIPES THROUGH RIGID WALL

Fire rating up to 120 U/C

Information

- Not to scale
- All units are in millimetres
- Tested according EN 1366-3
- Approval ETA-21/0256

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CPVC Blazemaster: The width of the annular gap is min 5 mm, max. 25 mm

	Pipe Diameter (d_c)	Wall thickness (t_c)	Opening size Max ($d_c + 25$)	Classification
Blazemaster 25	33.4	2.7	58.4	EI 120 U/C
Blazemaster 32	42.2	3.4	67.2	EI 120 U/C
Blazemaster 50	60.3	4.7	85.3	EI 120 U/C
Spears EverTuff 1/2"	15.88	1.98	40.88	EI 120 U/C
Spears EverTuff 1"	28.58	2.85	53.58	EI 120 U/C
Spears EverTuff 2"	53.98	5.19	78.98	EI 120 U/C

* First support and ancillary products should be capable of achieving the same fire performance as the seal and supporting structure.

Minimum distances between the penetrations

CPVC pipe to CPVC pipe penetration	50
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FIL: FW/RW-75-M-01

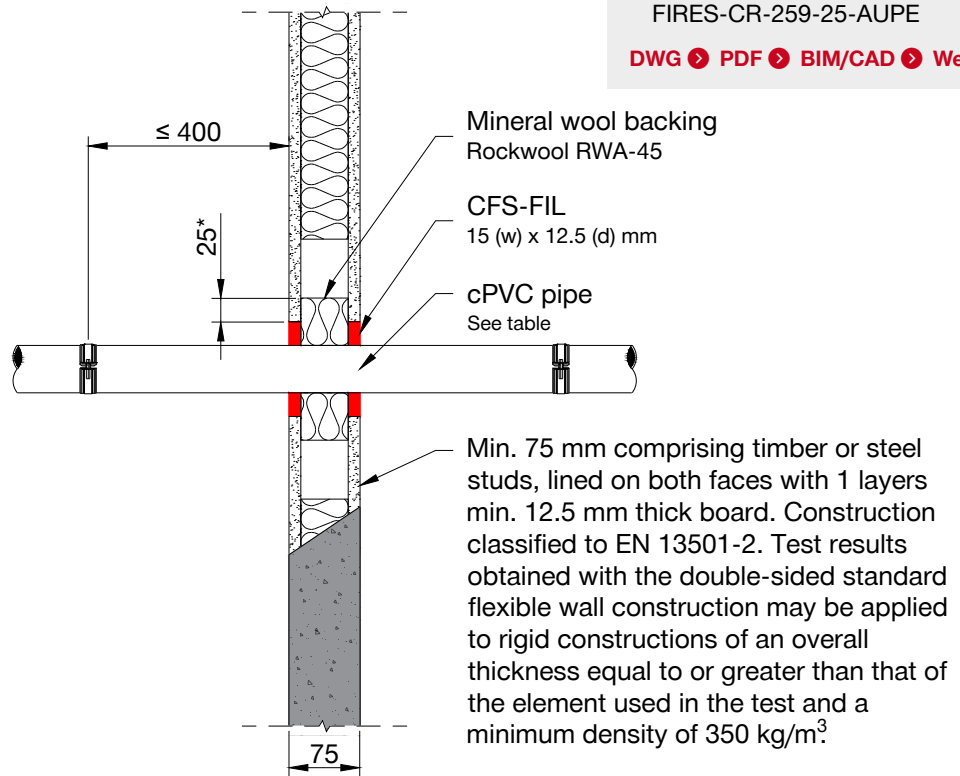
CPVC PIPE ON FLEXIBLE WALL TH. ≥ 75 MM

Fire rating up to EI 60 U/C

Information

- Not to scale
- All units are in millimetres
- Tested according to EN 1366-3
- Classification report
FIRES-CR-259-25-AUPE

DWG PDF BIM/CAD Web



Notes:

- (*) The stone wool backing is applied to full depth inside the wall, overlapping the opening by 25 mm, type Rockwool RWA-45
- All services are passing through the penetration seals, perpendicular to the supporting construction.
- **Maximum distance to 1st rigid support: ≤ 400 mm**
- Distances between service openings ≥ 50 mm
- Annular gap 15 mm
- Distance between Hilti CFS-FIL and seal edge 15 mm

Brand and type	Pipe diameter	Wall thickness	Classification	
Viking plastics, BlazeMaster pipe	Ø 26.7	2.24	EI 60 U/C	
	Ø 33.4	2.7	EI 60 U/C	
	Ø 42.2	3.4	EI 45 U/C	E 60 U/C
	Ø 48.3	4.15	EI 45 U/C	E 60 U/C
Spears, FlameGuard	Ø 26.7	2.0	EI 45 U/C	E 60 U/C
	Ø 33.4	2.5	EI 60 U/C	
	Ø 42.2	3.1	EI 30 U/C	E 60 U/C
	Ø 48.3	3.6	EI 45 U/C	E 60 U/C

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