www.fischer.de

fischer stands for

Fixing systems
Automotive
fischertechnik
Consulting
Electronic Solutions

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fischer

Catalogue
FireStop

“Innovative strength and technological competence strenghten our position at market.”

Foreword

Dear Partners,

Structural fire protection can save lives and maintain infrastructure in the event of a fire. Our comprehensive fischer FireStop product portfolio makes an important contribution to this. The solutions effectively prevent the spread of fire, smoke and toxic gases and thus far-reaching disasters in the event of fire. The assessments and approvals of our FireStop products in accordance with European and international standards give you peace of mind when using them.
For simple and complex applications in construction projects, the fischer range has the right, easy-to-assemble and efficient system solution. In this way, penetrations of any media lines can be effectively sealed off, curtain walls and VHF (ventilated curtain walls) can be safely constructed and construction joints can be securely sealed.
From planning and design to training and the installation of FireStop solutions on site, we also support you with numerous services. As a strong partner for passive fire protection, we are at your side with help and advice in all construction phases until the successful completion of the project.
For effective sealing against fire, smoke and toxic gases, the new FireStop catalogue provides you with an overview of our current products and services. Further information and details, such as installation instructions, calculation tables and an index for approvals and tests, also support you in selecting the most suitable solution.

Experience from the construction industry and impulses from our close exchange with customers and other industry experts are continuously incorporated into the further development of our FireStop portfolio. We are therefore always happy to receive your suggestions and ideas.
We hope you enjoy planning and installing our FireStop products!

Christian Knoll
Managing Director fischer SystemTec

“Whoever chooses fischer receives more than a range of safe products. The aim is to always develop the best solutions for our customers across the globe.”

Besides the innovative products, this predominantly concerns support that is focused on the customer, and services designed to improve customer benefit.

A brand and its promise to perform.

Continious improvement

The fischer ProzessSystem (fPS) we ensure that we are adapting and optimising our processes in line with customer requirements in a flexible manner and on a continuous basis. Thus we are glad having been awarded with the 1. place “Excellence in Operations” within the challenging contest “Factory of the Year”.

DIE FABRIK DES JAHRES
Global Excellence in Operations
Produktion ATKearney

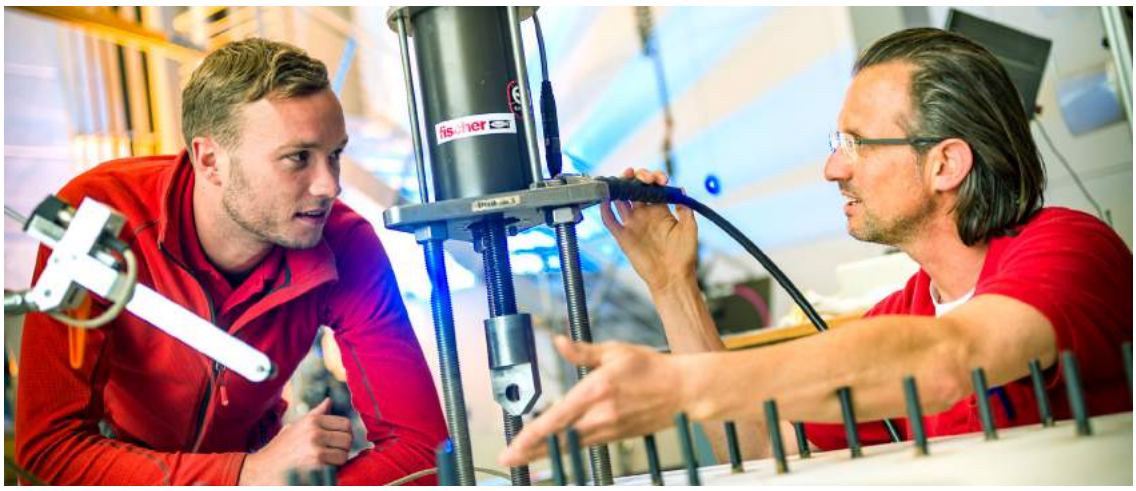
Award 2015
Exellence in Operations

Safety that connects. Decisive quality.

We don’t make any compromises when it comes to the safety of our products. A whole host of our products are distinguished by comprehensive, up-to-date and international approvals. The fischer product range is well-positioned in all sectors of fixing technology – Steel, Nylon and Chemical fixings. In awardwinning quality which continues to impress both professional clients and private customers with equal measure.

ETA CE

International approvals characterise many of our products.



Always on the pulse of time

At fischer, innovation is more than just a sum of the patents. We are open to new things and are prepared for change – always with the aim of off ering our customers the greatest possible benefits. Over the years, our own development and production sites have been developing numerous fixing solutions for the most wide-ranging applications. Be it new production procedures or materials, such as renewable raw materials: We are carrying out the research for your safety and will continue to do so in the future. This gives us such great flexibility that we can even develop tailor-made customer solutions. This power to innovate has seen fischer become market leader in anchor technology and the fixing industry.

Our service to you

We are a reliable partner, one that will stand at your side and address your individual requirements with advice and action:

- Our products range from chemical systems to steel anchors through to plastic anchors.
- Competence and innovation through own research, development and production.
- Global presence and active sales service in over 100 countries.
- Qualified technical consulting for economical and compliant fastening solutions. Also on-site at the construction site requested.
- Training sessions, some with accreditation, at your premises or at the fischer academy.
- Design and construction software for demanding applications.

We take responsibility

Our active environment management policy means that we are helping to maintain an intact environment for our generation and for those that follow. The environment management policy at the Tumlingen site has been certified in line with DIN EN ISO 14001.

It fills us with particular pride that in 2020 we have received the most important and largest award in Europe in the field of sustainability: the German Sustainability Award - category large companies.

This was in recognition of our holistic approach and the strategic anchoring of our sustainability management. With our greenline products we have launched the first range of fixings on the market that is based on renewable raw materials to more than 50%.

BIOBASED 50 - 85 %
DIN Geprüft
8C029

Greenline assortment based on 50% regrowing raw materials

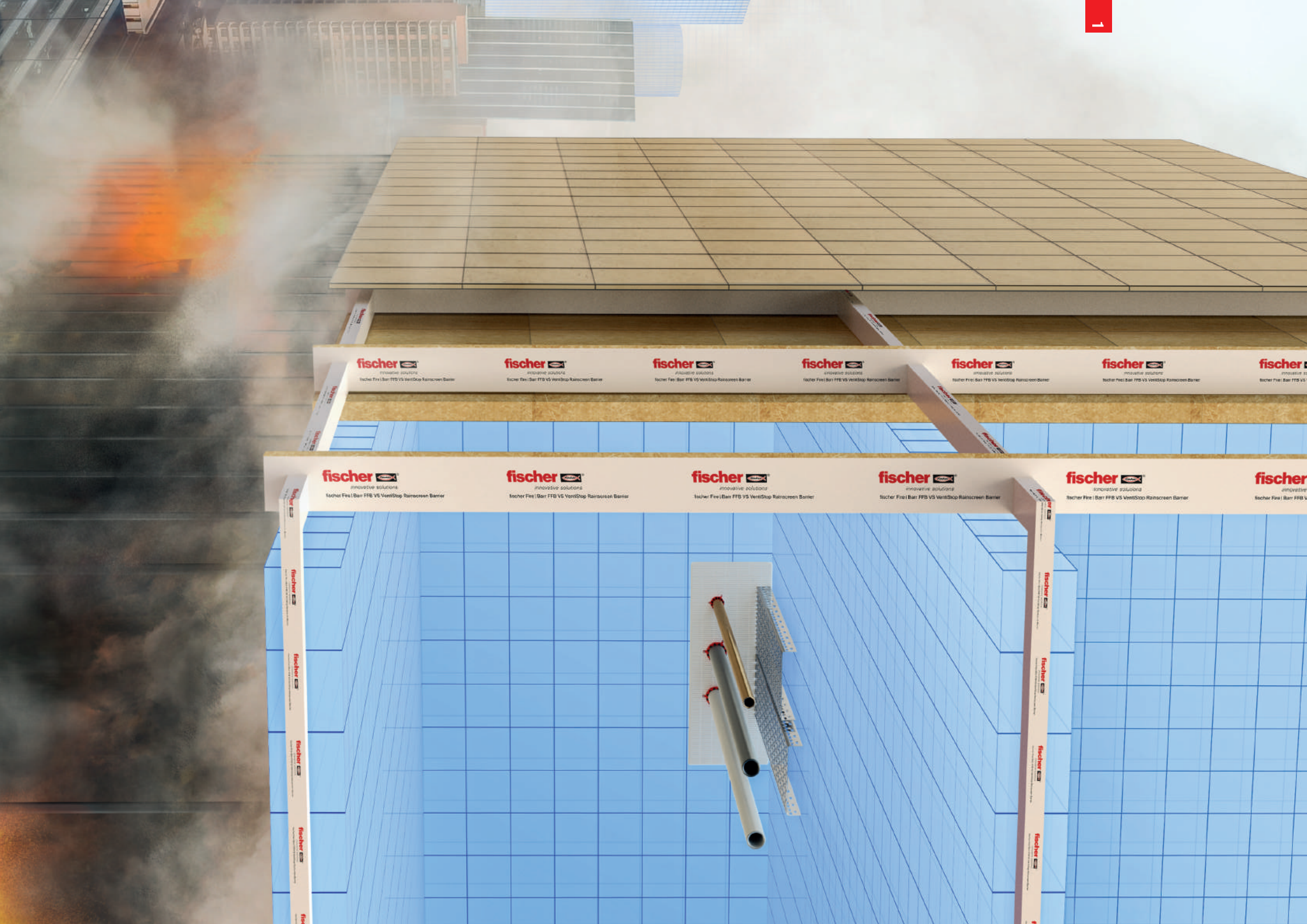
Deutscher Nachhaltigkeitspreis 2020
SIEGER
Großunternehmen

German Sustainability Award


fischer
FFB VS VentiStop Rainscreen Barrier

Innovations
that inspire professionals.

Content


fischer
innovative solutions
fischer Fire | Barr FFB VS VentStop Rainscreen Barrier

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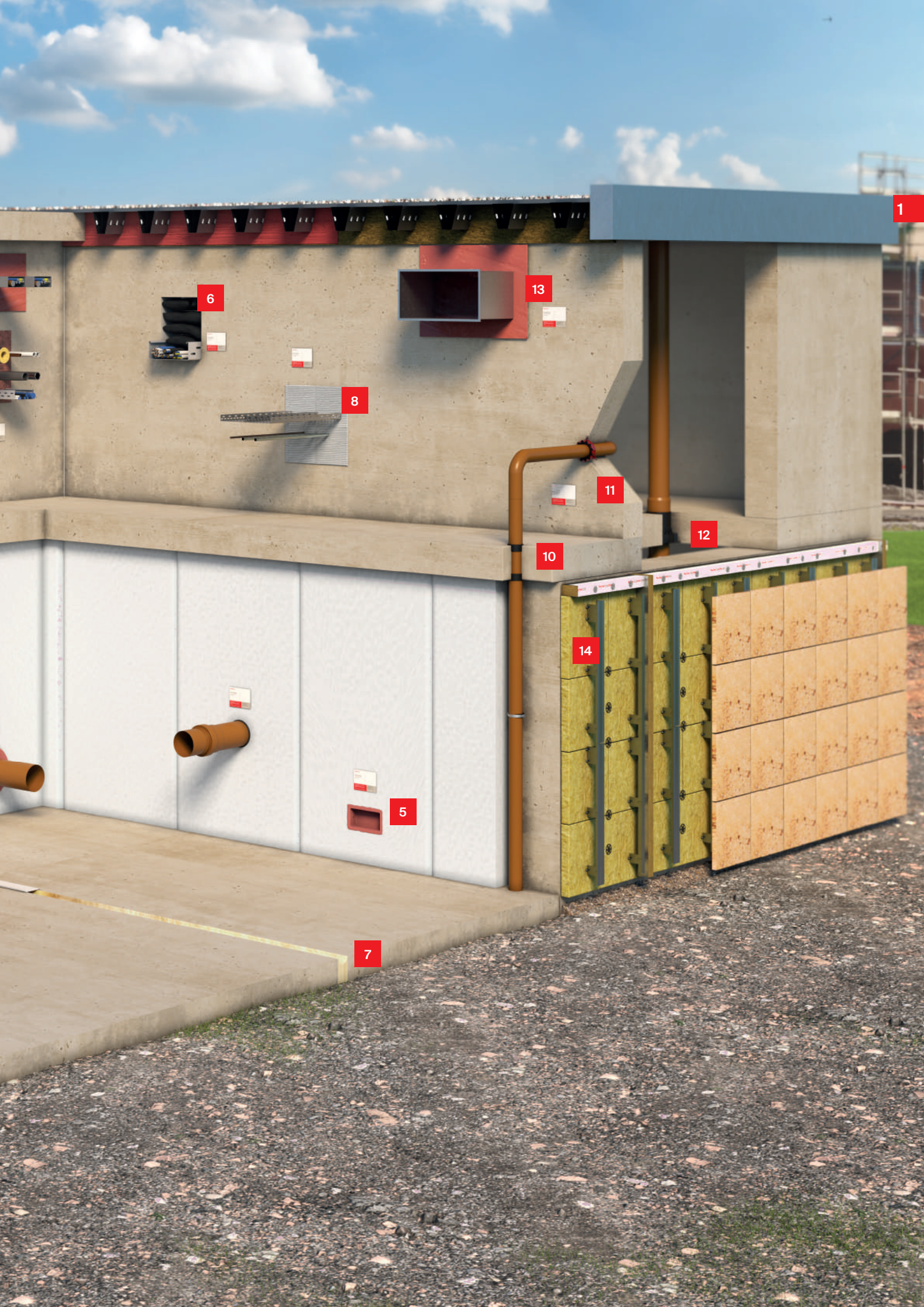
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FireStop Applications.

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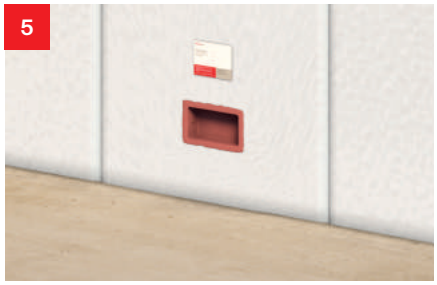

FiPP/UFS 310/FiGM

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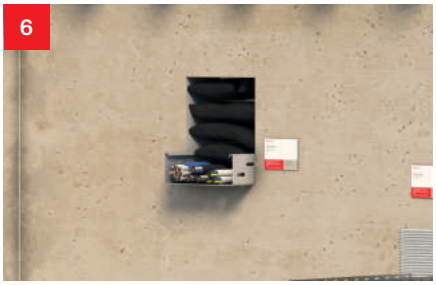

FiP

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FiAM (US)/FFRS/FFB-ES/RFS 640/FireStop Foam

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RFS 640/UFS 310/FiGM/FCPS

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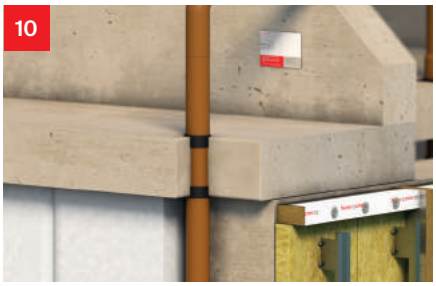

FiWS/FiPW/FFSC/FiAM

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FiWS/FFC

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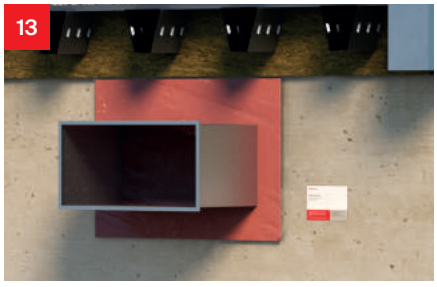

RFS 640/UFS 310/FiGM/FCPS

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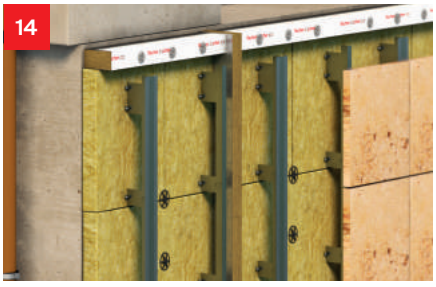

FFB VS/FCFcL

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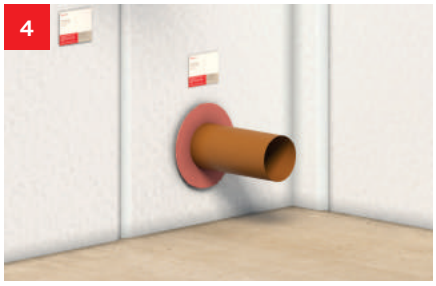
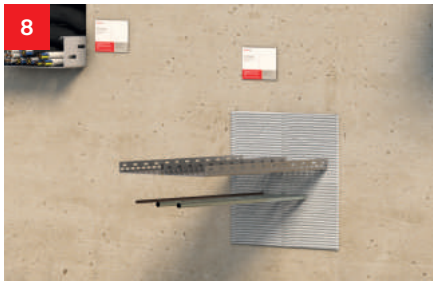
FBS/FBB



UFS 310/FiAM (US)/FiGM



FFSC/FCPS

FCID

FCPS/FiAM/TDW

2

FireStop Assortment

Intumescent Acoustic Mastic FiAM

Flexible fire resistant acoustic mastic

Construction joint application

Non combustible pipe application

Applications

- Metallic pipes: 13“ (325 mm)
- Cable trays: 18“ x 2“ (450 x 50 mm)
- Cable bunches: 4“ (100 mm)
- Linear joints: flexible and rigid construction elements
- Joints between FCPS coated panel system

Advantages

- Water based
- Low VOC
- Movement capability ± 25 %
- Excellent acoustic properties
- Approved for infinite linear gap length
- Halogen and solvent free
- Paintable and excellent slump characteristics

Certificates

ETA-20/1065
ETA-20/1064

EU

EN ISO 10140
EN 1026
EN 1366-3
EN 1366-4
ASTM E 84 (UL 723)
ASTM E 1966 (UL 2079)

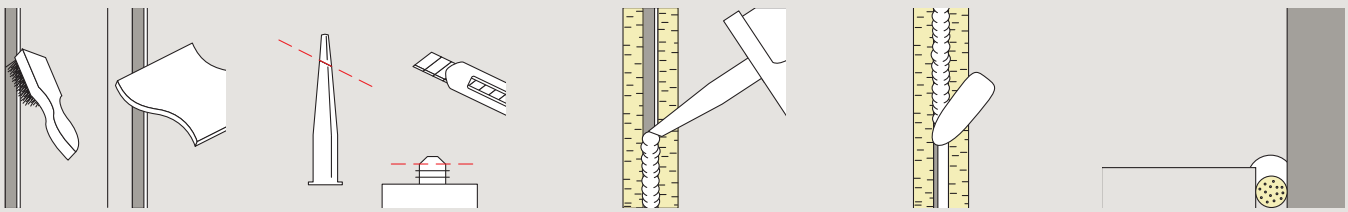
Building materials

- Flexible wall constructions
- Rigid floor and wall constructions
- Masonry
- Concrete
- Timber
- Steel
- FCPS System

Functioning

- FiAM is a one-part water-based acrylic emulsion.
- It has a fire resistance of up to 5 hours when used in construction joints and services in both vertical and horizontal applications.
- When exposed to fire, it reacts to form a highly insulative char that slows down heat transfer and provides a barrier to fire.
- It is suitably compatible in a variety of materials, and is utilised within the FCPS which is designed to seal large openings in fire rated floors and walls.

Installation FiAM



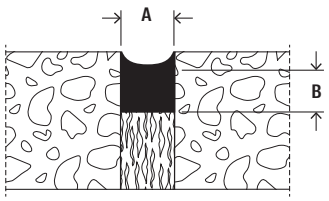
Intumescent Acoustic Mastic FiAM

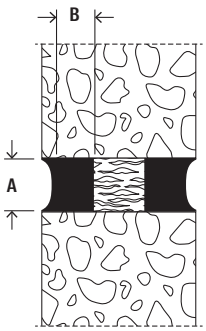
Item	Item no.	Approval ETA	Languages on the cartridge	Contents [ml]	Adapted for	Sales unit [pcs]
FiAM 310	**053011**	●	DE, FR, EN, IT	310	–	1
FiAM 310	**538152**	●	DK, FI, SE, NO	310	–	1
FiAM 310	**538150**	●	TR, PT, ES, NL	310	–	1
FiAM 310	**538151**	●	PL, SK, CZ, HU	310	–	1
FiAM 600	**056006**	●	–	600	–	1
KPM 2 Plus	**053117**	–	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1
Applicator gun 600 ml	**097967**	–	–	–	FIAM 600 ml	1

Technical data

Base material	Water-based acrylic
Relative gravity	approx. 1.6 g/cm³
Skin-forming time	approx. 10 min at 23 °C RH
Curing rate	approx. 1.5 mm per 24 hours
Storage temperature	+ 5 °C to + 25 °C
Movement capability	±25 %
Shelf life	18 month
pH Value	8 - 9.5
Accoustic performance	63 dB
Yield per l/m	depending on application
Colour	white (grey on request)
European Technical Assessment	ETA-20/1064, ETA-20/1065
CE marking	2531-CPR-CX010321

Curing rate is dependent on substrate, air humidity and weather conditions.





Application data

Joint width A [mm]	Joint depth B [mm]	ml per linear metres*
60	5	300
50	5	250
30	5	150
15	5	75
5	5	25

*The consumption of the product depends on the application.

Substrate	Max. joint width [mm]	Fire ratings	
		Integrity rating [min]	Insulation rating [min]
Concrete/masonry	60	240	240
Concrete or masonry/steel	60	240	60
Concrete or masonry/timber	60	60	60
Concrete/masonry/head detail	60	240	240

For detailed information please refer to listed system.

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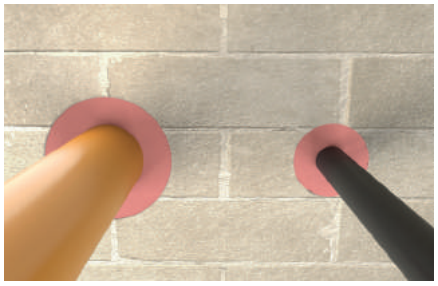
Service type size		Fire ratings	
		Integrity rating [min]	Insulation rating [min]
Copper/steel/metal pipes	35 - 159 mm diameter	up to 240	up to 240
Loaded cable try	450 x 50 (tray) cables to 21 mm	up to 120	up to 90
Single/bunched cables	21 - 100 mm diameter cables	up to 120	up to 120

Intumescent Acoustic Mastic FiAM US

General purpose fire resistant sealant designed for UL specific applications

Construction joint application



Non combustible pipe application

Applications

- Linear joints: flexible and rigid construction elements with dynamic movement
- Metallic pipes and ducts
- Insulated metallic pipes
- Conduits
- Cable and cable bunches
- Cable trays

Advantages

- Water based
- Excellent acoustic properties
- Low VOC
- Halogen and solvent free
- Various applications with two products only
- Age resistant
- Smoke resistant
- Excellent adhesion
- F-rating up to 3 hrs
- T-rating up to 3 hrs

Certificates

ASTM E 84 (UL 723)
ASTM E 814 (UL 1479)
ASTM E 1966 (UL 2079)

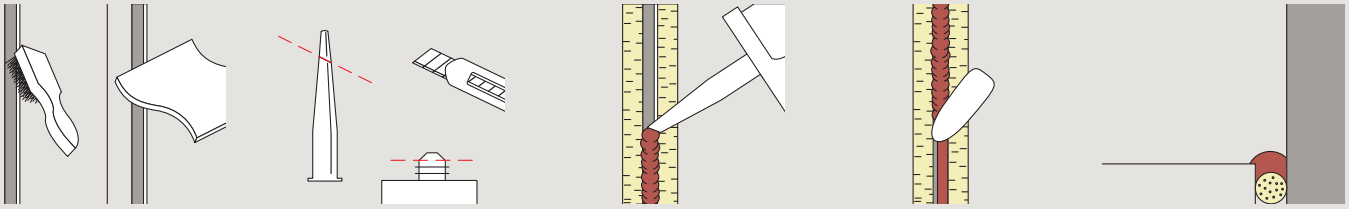
Building materials

- Flexible wall constructions
- Rigid floor and wall constructions
- Masonry
- Concrete
- Steel

Functioning

- The FiAM US is a one-part water based fire resistant sealant designed for a wide range of UL listed applications.
- The FiAM US can be used in construction joint and service penetration applications.
- The FiAM US can be used in both vertical and horizontal orientation and can be used in conjunction with the FiWS for a wide range of combustible services.

Installation FiAM US

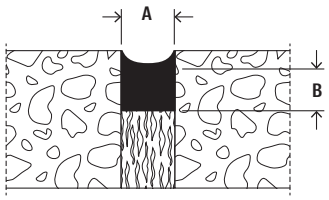


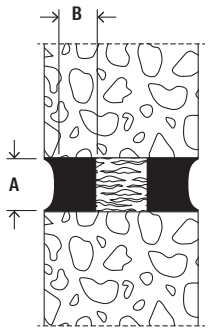
Technical data

Item	Item no.	Languages on the cartridge	Contents [ml]	Adapted for	Sales unit [pcs]
FiAM US	**546487**	DE, EN, ES, TR	310	–	1
FiAM US 19 liter bucket	**554934**	–	–	–	1
KPM 2 Plus	**053117**	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1

Technical data

Base material	Water-based elastomeric
Skin-forming time	approx. 20 - 30 min
Curing rate	3 to 4 weeks at 25 °C
Storage temperature	+ 2 °C to + 49 °C
Movement capability	up to 33 %
Shelf life	up to 36 month
pH Value	7 - 8
Accoustic performance	65 dB
Surface burning characteristics	Flame spread: 10 - Smoke: 10
Colour	red





Application data

Joint width A [mm]	Joint depth B [mm]	ml per linear metres*
1“ (25 mm)	5/8“ (16 mm)	400
1“ (25 mm)	1/2“ (13 mm)	325
2“ (50 mm)	1/4“ (6 mm)	300
3-1/2“ (90 mm)	1/4“ (6 mm)	540
3/4“ (20 mm)	5/8“ (16 mm)	320

*The consumption of the product depends on the application.

Fire Rated Silicone Sealant FFRS

Elastomeric fire resistant sealant

Construction joint application

Vertical construction joint application

Applications

- General construction joints in floor to floor, wall to wall, floor to wall and head of wall up to 2.36“ (60 mm)
- Internal and external applications

Advantages

- Excellent acoustic properties
- Primerless adhesion to most substrates
- Approved for infinite linear gap length
- Halogen and solvent free
- Excellent slump characteristics
- Movement capability ± 7.5 %

Certificates

CE

EN ISO 10140
EN 1026
EN 1366-4

ETA-20/1102

UL EU

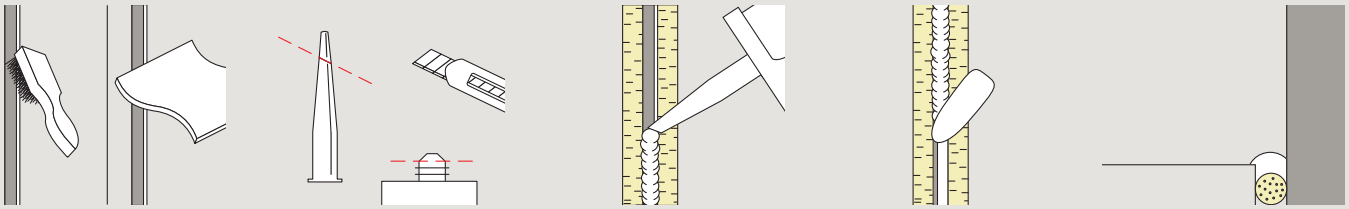
Building materials

- Concrete
- Masonry
- Steel
- Timber

Functioning

- FFRS is a one part silicone based sealant that can provide up to 5 hours fire resistance when used in construction joints.
- It provides primerless adhesion to a wide range of porous and non-porous substrates.

Installation FFRS



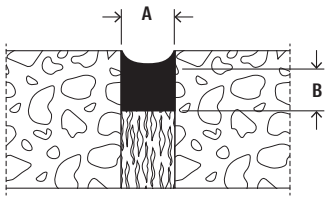
Technical data

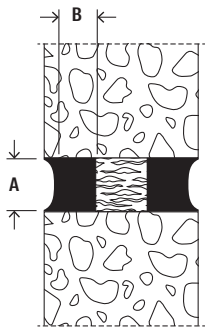
Item	Item no.	Approval ETA	Languages on the cartridge	Contents [ml]	Adapted for	Sales unit [pcs]
FFRS White 310 ml	**512374**	●	DE, FR, EN, IT	310	–	1
FFRS White 310 ml	**538140**	●	DK, FI, SE, NO	310	–	1
FFRS White 310 ml	**538138**	●	TR, PT, ES, NL	310	–	1
FFRS White 310 ml	**538139**	●	PL, SK, CZ, HU	310	–	1
KPM 2 Plus	**053117**	–	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1

Technical data

Curing system	Alcoxy
Relative gravity	1.17 kg/m^3
Skin-forming time	approx. 5 - 10 min (at 25 °C and 50% relative humidity)
Tack free after	approx. 20 min
Curing rate	approx. 2 to 3 mm per 24 hours (at 25 °C and 50 % relative humidity)
Shore A hardness	25
Extrudability	55 (standard MNRPS 495A 3 mm/3 bars)
Movement capability	±7.5 %
Shelf life	up to 12 month
European Technical Assessment	ETA-20/1102
Colour	white (grey and black on request)
Elastic recovery	> 90 %
Accoustic performance	38 dB

The cured sealant is unaffected by water, dilute acids and alkalis, soap and household detergents. Certain solvents may soften and swell the cured rubber on prolonged contact.





Application data

Joint width A [mm]	Joint depth B [mm]	ml per linear metres*
60	5	300
50	5	250
30	5	150
15	5	75
5	5	25

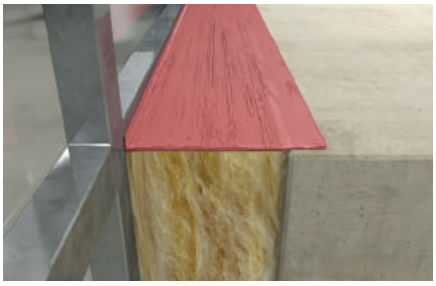
*The consumption of the product depends on the application.

Substrate	Max. joint width [mm]	Depth of sealing [mm]	Fire ratings	
			Integrity rating [min]	Insulation rating [min]
Masonry/masonry	60	5	240	60
Masonry/masonry	12	6	240	120
Masonry/masonry	60	30	240	90
Masonry/masonry	60	5	240	240
Masonry/masonry	50	25	240	240
Masonry/plasterboard	25	20	120	120
Steel/masonry	60	5	240	60
Wood/masonry	60	5	180	180

For detailed information please refer to listed system.

Rapid Fire Seal RFS 640

Rapid fire resistant sealant



Curtain wall application

Head of wall application

Applications

- Curtain wall/slab edge: 8“ (200 mm)
- Head of wall: 4“ (100 mm)
- General construction joints: 8“ (200 mm)
- Cable tray: 24“ x 4“ (600 mm x 100 mm)
- Steel pipes: 8“ (200 mm)

Advantages

- Water based
- Flexible set
- Contains mould growth inhibitor
- Freeze - thaw capabilities
- Paintable
- Accelerated age and humidity tested
- Low VOC
- Spray or brush applied
- Excellent smoke seal
- Water resistant
- Asbestos and solvent free
- Can be used for internal applications and for conditions where dynamic movement may occur.

Certificates

ASTM E 84 (UL 723)
ASTM E 814 (UL 1479)
ASTM E 1966 (UL 2079)
ASTM E 2307

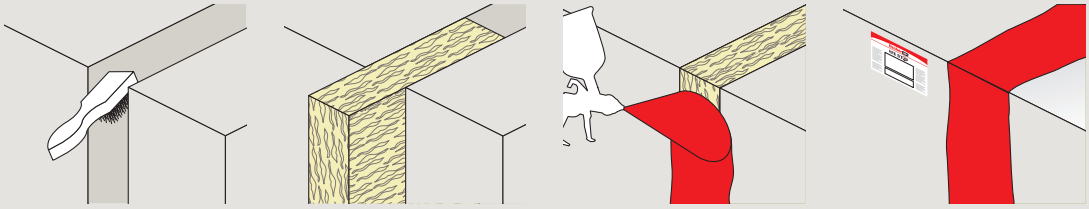
Building materials

- Flexible wall constructions
- Rigid floor and wall constructions
- Flexible wall
- Masonry
- Concrete

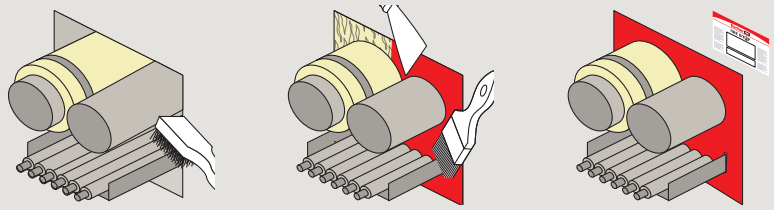
Functioning

- RFS 640 is a spray grade one-part water-based, fire rated sealant, which has been designed to provide smoke and fire protection on construction joints and service penetrations in both vertical and horizontal applications.
- Provides up to 3 hours fire rating (also in accordance with ASTM E 2307).
- Meeting the new requirements of ASTM E 1399, RFS 640 has been cycled tested up to 500 times.
- Can be used for internal applications and for conditions where dynamic movement may occur.
- RFS 640 has also been tested at positive pressure with a minimum 0.01in. (2.5 mPa) water i.a.w UL 2079 test standards.

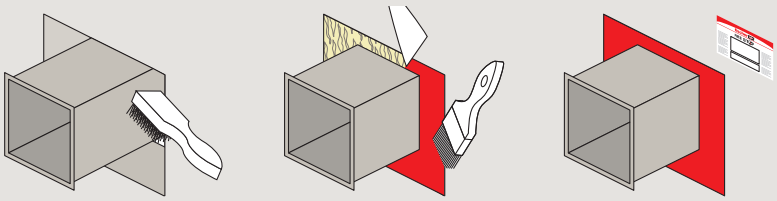
Installation RFS 640 - Joint application



Installation RFS 640 - Penetration application



Installation RFS 640 - Air duct application



Technical data

	Item no.	Contents [l]	Colour	Sales unit [pcs]
Item				
RFS 640	**516539**	19	red	1

Technical data

Base material	Water-based
Density	approx. 1.25 g/cm³
Skin-forming time	approx. 30 - 45 min
Curing time	approx. 5 - 7 days
Storage temperature	+ 2 °C to + 49 °C
Movement capability	up to 50 %
Water resistant	depending on individual system
Shelf life	36 months month
pH Value	7 - 8
Accoustic performance	65 dB
Surface burning characteristics	Flame spread: 0 - Smoke: 0

Skin-forming and curing time is dependant on substrate, air humidity and weather conditions.
Movement capability depends on UL listed system and configuration.
Water resistant in accordance with UL 2079.

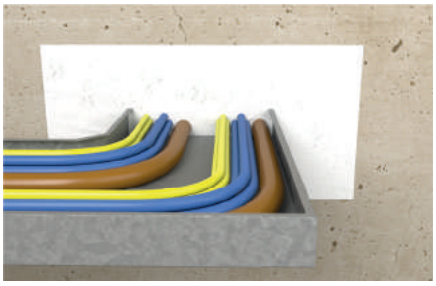
Application data

Joint width [inch]	Joint width [mm]	Ft/gallon	Ft/pail	LM/gallon [mm]	LM/pail
0.25	6	198	1,325	89	404
0.50	13	164	1,099	74	335
0.75	19	141	941	63	287
1.00	25	124	830	56	253
1.25	32	109	731	49	223
2.00	51	82	548	37	167
4.00	102	49	328	22	100
6.00	152	35	233	16	71
8.00	203	27	180	12	55

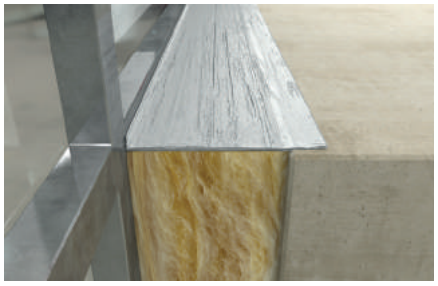
The above table provides an approx. yield for a coverage of 1/16“ (1.5 mm) Wet Film Thickness (WFT) with a 1/2“ (12.5 mm) overlap. Application shall be as per listed system.

Fire I Barr ElastoSeal FFB-ES

Elastomeric fire resistant coating for construction joint and assemblies



Elecrtical application



Curtain wall application

Applications

- Linear joints in construction elements up to 20“ (500 mm) wide
- Floor to floor
- Wall to wall
- Head of wall
- Bottom of wall
- Curtain wall
- Cabel / cabel trays
- Metallic pipes

Advantages

- Openings up to 20“ (500 mm) wide
- Movement capabilities of 25 %
- Working temperature between -10 °C and 95 °C
- Can be spray or brush applied
- Air permability
- Acoustic performance
- 80 kg/m³ stone wool base
- 2.5 mm WFT required

Certificates

ETA-20/1103
ETA-20/1101
EN ISO 10140
EN 1026
EN 1027
EN 1364-4
EN 1366-3
EN 1366-4

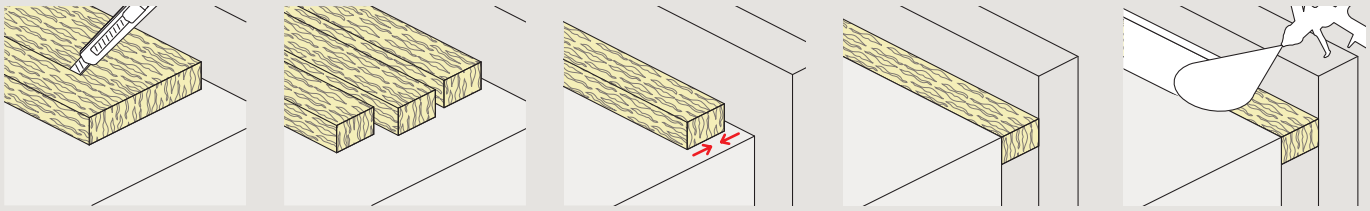
Building materials

- Flexible wall constructions
- Rigid floor and wall constructions
- Concrete
- Masonry

Functioning

- FFB-ES is a one-part water-based acrylic coating, which has been designed to provide smoke and fire protection on construction joints in both vertical and horizontal applications.
- Developed for use on 80 kg/m³ stone wool base.
- Once applied, it prevents the passage of fire and smoke and can contribute to the acoustic value of a structure between fire rated compartments giving a fire resistance for up to EI 240.

Installation FFB-ES



Technical data

Item	Item no.	Approval ETA	Content [kg]	Sales unit [pcs]
FFB-ES/White	**520753**	●	20	1
FFB-ES/Grey	**520755**	●	20	1
FFB-ES/Red	**520756**	●	20	1

Technical data

Description	Water-based, flexible acrylic coating
Density	1.25 - 1.3 g/cm^3
Coating thickness	2.5 mm nominal, wet film thickness
Sealant coverage	2.8 kg/m^2, 2.24 l/m^2
Fire resistance	EN1366-4:2006 120 EI
Accoustic performance	-
Air permeability	600 PA positive and negative pressure and tested to EN1026
Water permeability	450 PA positive pressure and tested to EN1027
Spraying guidance	-
Storage temperature	- 5 °C to +25 °C
Colour	-
Shelf life	from date of manufacture 18 month
European Technical Assessment	ETA-20/1101, ETA-20/1103
CE marking	2531-CPR-CX010324

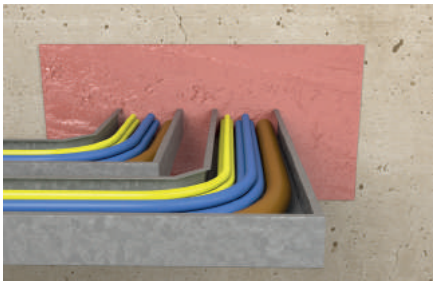
Application data

Joint width [inch]	Joint width [mm]	Ft/gallon	Ft/pail	LM/gallon [mm]	LM/pail
0.25	6	119	800	54	244
0.50	13	99	683	44	202
0.75	19	85	567	38	173
1.00	25	73	492	33	150
1.25	32	66	443	30	135
2.00	51	49	328	22	100
4.00	102	31	207	14	63
6.00	152	22	148	10	45
8.00	203	16	108	7	33

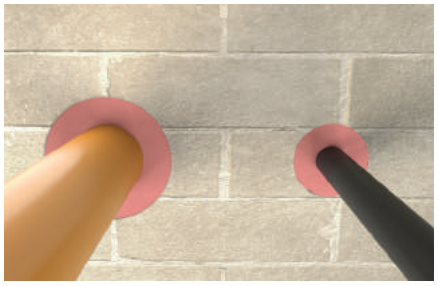
The above table provides an approx. yield for a coverage of 2.5 mm Wet Film Thickness (WFT) with a 12.5 mm overlap. Application shall be as per listed system.

Universal FireStopping Sealant UFS

Universal firestopping sealant which is suitable for metallic, non-metallic services and construction joints



Electrical application



Combustible and non combustible pipes application

Applications

- Metallic services: steel and cast iron 20“ (500 mm) - copper 6“ (150 mm)
- Non metallic service: PVC 2“ (51 mm open) 3“ (75 mm closed)
- Insulated service: 20“ (500 mm)
- Construction joints: 4“ (100 mm)
- HVAC 100“ (2500 mm)
- Cable bunches 4“ (100 mm): busway 27“ (686)

Advantages

- Water based
- Flexible set
- Contains mould growth inhibitor
- Freeze - thaw capabilities
- Paintable
- Accelerated age and humidity tested
- Low VOC
- Excellent acoustic properties

Certificates

CLASSIFIED C UL US

FBC SYSTEM COMPATIBLE

FM APPROVED

ASTM E 84 (UL 723)
ASTM E 814 (UL 1479)
ASTM E 1966 (UL 2079)

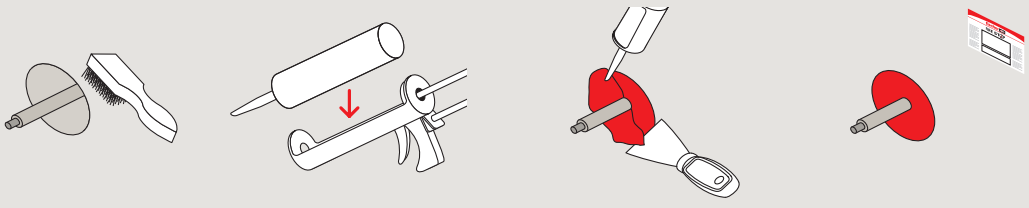
Building materials

- Wall constructions - linear joints
- Floor constructions - linear joints
- Flexible wall
- Masonry
- Concrete

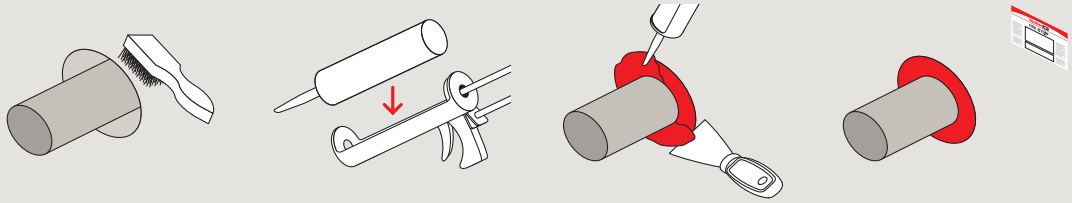
Functioning

- UFS is a one-part water-based intumescent sealant which is used for sealing construction joints and service penetration in both vertical and horizontal applications.
- Up to 4 hours of fire rating can be provided.
- It exhibits excellent slump characteristics, is easy to apply and cures to a flexible set. It is suitable for internal applications and conditions where dynamic movement may occur.
- UFS can be used for most application properties.

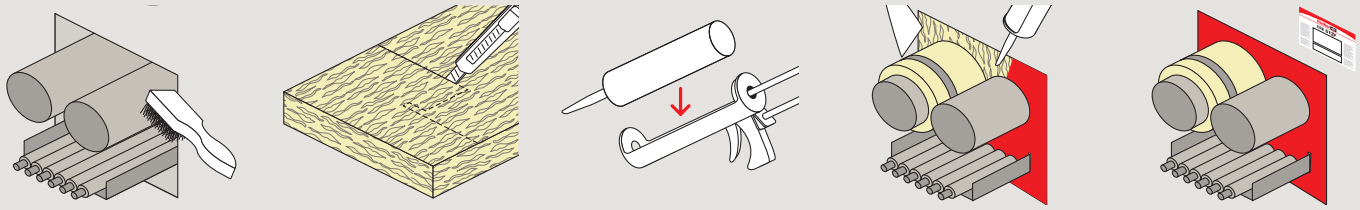
Installation UFS - Cabel application



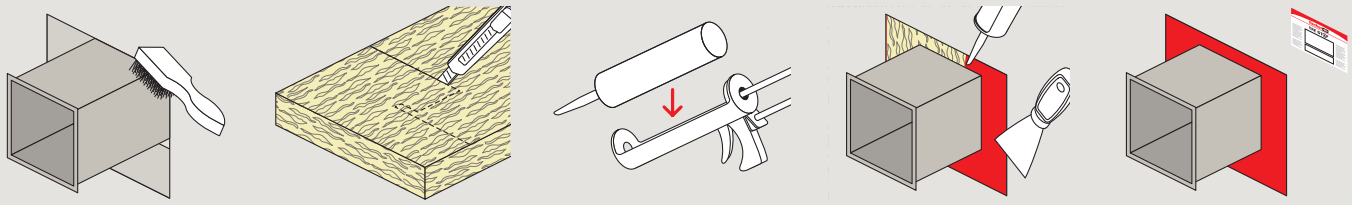
Installation UFS - Pipe application



Installation UFS - Penetration application



Installation UFS - Air duct application



Technical data

Item	Item no.	Languages on the cartridge	Contents [ml]	Contents [l]	Adapted for	Sales unit [pcs]
UFS 310	**516538**[1)]	DE, FR, EN, NL	310	–	–	12
UFS 19 liter bucket	**533889**	–	–	19	–	1
KPM 2 Plus	**053117**	–	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1

[1)] Curing rate is dependant on substrate, air humidity and weather conditions.Movement capability depends on UL listed system and configuration.

Technical data

Base material	Water-based elastomeric
Density	approx. 1.31 g/cm^3
Skin-forming time	approx. 20 - 30 min
Curing rate	approx. 4 mm in 72 hours
Storage temperature	+ 2 °C to + 49 °C
Movement capability	up to 50 %
Intumescent activation	190 °C to 593 °C °C
Shelf life	up to 36 month
pH Value	6.5 - 7
Surface burning characteristics	Flame spread: 0 - Smoke: 0
Colour	red

Curing rate is dependant on substrate, air humidity and weather conditions.
Movement capability depends on UL listed system and configuration.

Application data

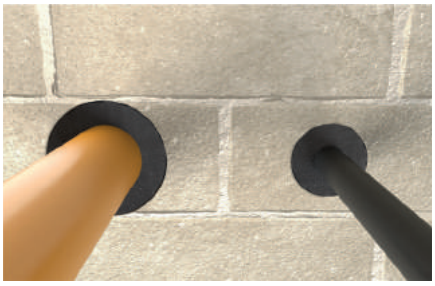
Services		Fire ratings (minutes)	
Types	**Sizes**	**Integrated rating**	**Insulation rating**
PVC/CPVC closed pipe systems	3" (75 mm)	120	120
PVC/CPVC open pipe systems	2" (50 mm)	120	120
Steel and cast iron pipes	20" (508 mm)	180	0
Copper pipes	6" (152 mm)	180	0
Insulated services	20" (508 mm)	120	120
Construction joints	4" (100 mm)	120	120
HVAC	100" (2,500 mm)	120	120
Cable bunches	4" (100 mm)	120	120
Cable tray/ladder	24" (600 mm)	120	45
Bus tar	27" (686 mm)	120	45

For detailed information please refer to listed system.

Intumescent Graphite Mastic FiGM

High performance intumescent graphite fire resistant mastic

Electrical application



Application of metallic pipes

Applications

- Metallic pipes: 6“ (159 mm)
- Non-metallic pipes: 5“ (125 mm)
- Cable bunches: 1“ (21 mm)
- Insulated service: 6“ (159 mm)
- Construction joints: 1“ (25 mm)
- Mixed services

Advantages

- Low VOC
- Excellent acoustic properties
- Halogen and solvent free
- Excellent slump characteristics

Certificates

ETA-20/1105

EN ISO 10140
EN 1026
EN 1366-3

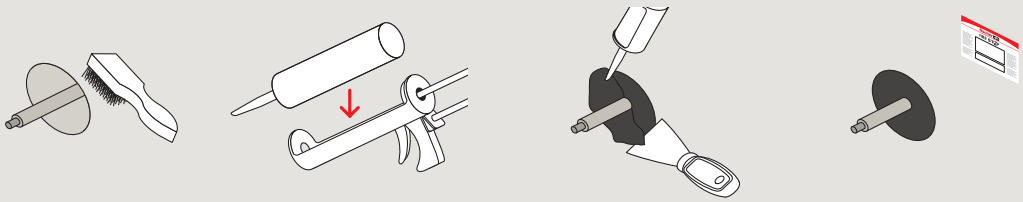
Building materials

- Concrete
- Masonry
- Steel
- Timber

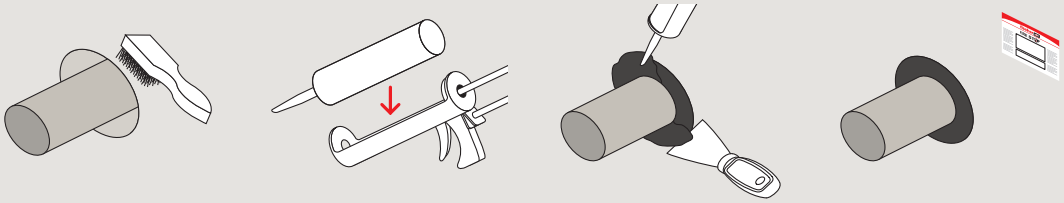
Functioning

- FiGM is a one-part water-based flexible acrylic emulsion containing a high pressure intumescent graphite, which is used to seal service penetrations in both vertical and horizontal applications.
- It can expand up to 20 times its own volume and cures to form a resilient, flexible fire seal.

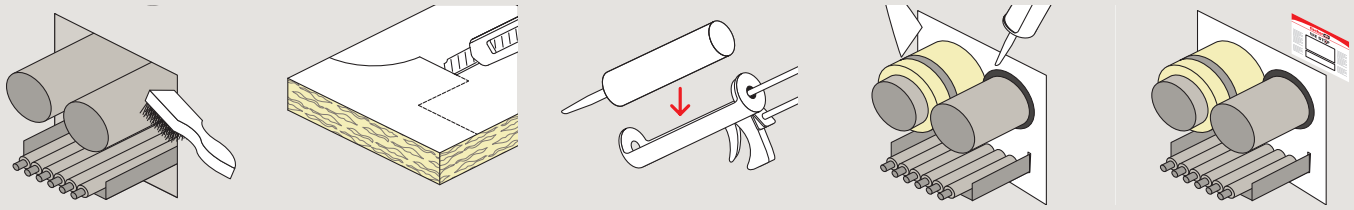
Installation FiGM - Cabel application



Installation FIGM - Pipe application



Installation FIGM - Penetration application



Technical data

Item	Item no.	Approval ETA	Languages on the cartridge	Contents [ml]	Adapted for	Sales unit [pcs]
FiGM 310 ml	**508765**	●	DE, FR, EN, IT	310	–	1
FIGM 310 ml	**538147**	●	TR, PT, ES, NL	310	–	1
FiGM 310 ml	**538148**	●	PL, SK, CZ, HU	310	–	1
FiGM 310 ml	**538149**	●	DK, FI, SE, NO	310	–	1
KPM 2 Plus	**053117**	–	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1

Technical data

Base material	Aqueous thixotropic paste
Density	approx. 1.3 g/cm^3
Curing rate	1.7 mm per 24 hours dependent on conditions
Storage temperature	+ 5 °C to + 30 °C
Tack free after	30 min
Curing system	Water-based
UV resistance	good
Expansion	up to 20 times
Skin-forming time	15 min (at 25 °C and 50% relative humidity)
Accoustic performance	64 dB
Shelf life	up to 12 month
European Technical Assessment	ETA-20/1105
CE marking	2531-CPR-CX010327
Chemical and water resistant	-
Colour	black

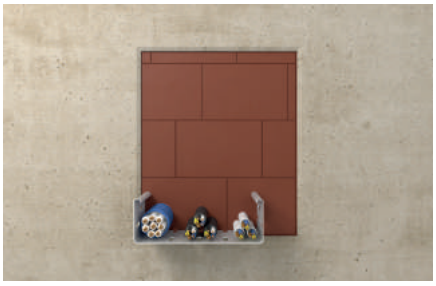
Application data

Services		Fire ratings (minutes)	
Types	**Sizes**	**Integrated rating**	**Insulation rating**
PVC pipe	Up to 125 mm diameter	120	120
HDPE pipe	Up to 90 mm diameter	120	120
ABS pipe	Up to 90 mm diameter	120	120
Insulated copper pipe	Up to 159 mm diameter + up to 32 mm insulation	120	120
Cables	Up to 21 mm diameter x bunches 10 max.	120	120
Mixed	Up to 63 mm diameter HDPE + 21 mm diameter cables x 10	120	120

For detailed information please refer to listed system.

Foam Barrier System PLUS

FireStop Foam and FireStop Block for use in a System. Or individually. ETA approved and UL listed applications.



Electrical application

Mixed penetration application

Applications

- Metallic pipes up to 8“ (203 mm)
- Insulated metallic pipes
- Conduits
- Cable and cable bunches
- Cable trays
- Mixed multiple penetrations

Advantages

- Easy access for difficult to reach openings
- Low VOC
- Various applications with two products only
- Age resistant
- Smoke resistant
- Resistant to damp
- Re-enterable and repairable
- Excellent adhesion
- No backing material required
- F-rating / E-Integrity rating up to 2 hours
- T-rating / EI-Insulation rating up to 2 hours

Certificates

ETA-17/0845

EN 1366-3
ASTM E 84 (UL 723)
ASTM E 814 (UL 1479)
EN 13501-1

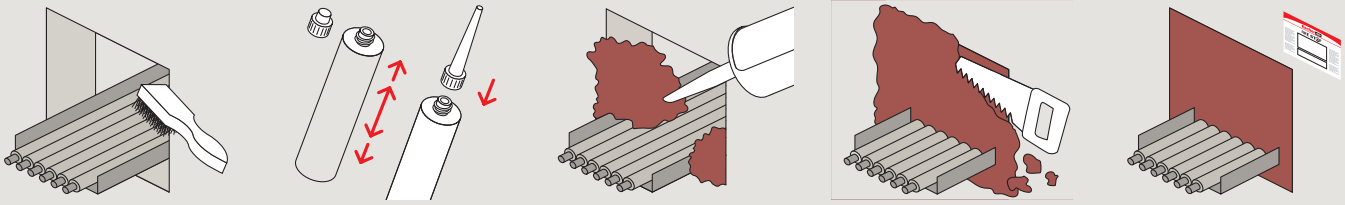
Building materials

- Concrete (wall and floors)
- Masonry
- Flexible wall

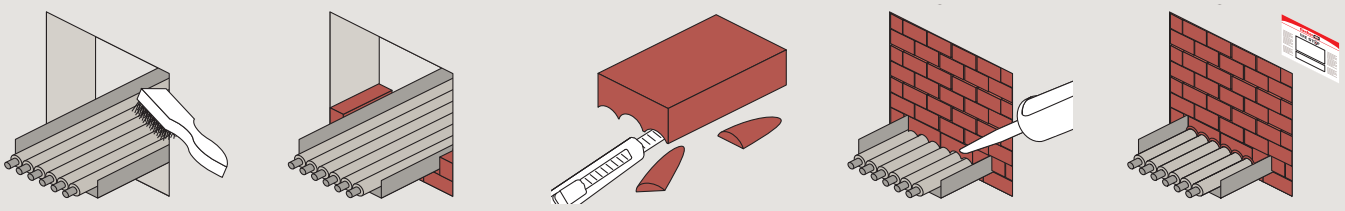
Functioning

- FBS is a two component polyurethane expanding sound, smoke and firestopping seal for hard to reach locations which expands to up to 5 times of its volume.
- FBB are highly elastic mouldable blocks.
- FIB is a glass fiber reinforced intumescent wrap to enhance the insulation value of ETA applications.
- Tested in accordance with ASTM E 814 (UL 1479), ASTM E84 (UL 723) as well as EN 1366-3, EN 13501 the Barrier System PLUS allows an easy application which saves time and costs on site.

Installation FBS



Installation FBB



Technical data

Item	Item no.	Approval ETA	Languages on the cartridge	Contents [ml]	Dimensions [mm]	Sales unit [pcs]
FBS-UL	**544079**	–	–	380	–	6
FBB-UL FireStop Block	**544083**	–	–	–	200 x 130 x 60	12
FBS-EN	**544084**	●	DE, FR, EN, IT	380	–	6
FBS-EN	**544085**	●	DK, FI, SE, NO	380	–	1
FBS-EN	**544086**	●	PL, SK, CZ, HU	380	–	1
FBS-EN	**544087**	●	TR, PT, ES, NL	380	–	1
FBB-EN FireStop Block	**544088**	●	–	–	200 x 144 x 60	4
FIB Insulating Bandage	**544089**	–	–	–	5000 x 150	1
FFBD Foam Barrier Dispenser	**544090**	–	–	–	–	1

Technical data FBS-UL

Temperature resistance	≤ 80 °C
Yield	≤ 1.9 l
Curing time	approx. 90 s
Shelf life	12 month
Storage temperature	+ 5 °C to + 30 °C
Colour	reddish brown

Technical data FBS-EN

Density	≥ 215 kg/m^3
Temperature resistance	≤ 80 °C
Construction material class	B2 as per DIN 4102
Yield	≤ 2.1 l
Curing time	approx. 90 s
Shelf life	12 month
Storage temperature	+ 5 °C to + 30 °C
Accoustic performance	43.5 - 66 dB
Colour	reddish brown

Technical data FBB-EN

Temperature resistance	≤ 80 °C
Construction material class	B2 as per DIN 4102
Accoustic performance	45.5 - 68
Colour	reddish brown

Technical data FBB-UL

Temperature resistance	≤ 80 °C
Colour	reddish brown

Application data - UL

	Blank opening	Metallic pipes and conduits	Cables/Cable trays	Insulated metall pipes	Mixed penetrations
Max. possible sizes of penetrations	Max 32 x 32 inch (813 x 813 mm)	Max 8 inch (203 mm) diameter	Max 24 inch (610 mm) wide by max. 6 inch (152 mm) deep cable tray	Max 8 inch (203 mm) diameter with 1 inch (25 mm) insulation	see listed system
Barrier System PLUS UL	C-AJ-0158, W-L-0052	C-AJ-1669	C-AJ-3341, C-AJ-4110, W-L-4091	C-AJ-5383	C-AJ-8260, C-AJ-8261

Application data - ETA

		Seal thickness 144 mm	Seal thickness 200 mm
Cable / Cable Trays and Ladders	Sheated electrical cables up t o 80 mm	Wall: E120/EI60 - Floor: EI60	Wall/Floor: E120/EI90
	Tied cable bundles up t o 100mm	Wall: E120/EI60 - Floor: EI60	Wall/Floor: E120/EI90
	Non-sheated electrical cables	Wall: E120/EI45 - Floor: E60/EI30	Wall/Floor: E120/EI60
Condiuts	Conduits/pipes of plas tic up to a max. diameter of 40 mm	Wall: E120/EI60 - Floor: E60/EI30	Wall/Floor: EI120
Pipes	Insulated metal pipes with max. diameter of 54 mm	Wall: E120/EI90 - Floor: EI60	Wall/Floor: E120/EI90
	Non-insulated metal pipes with max. diameter of 28 mm	Wall: E120/EI60 - Floor: EI60	Wall/Floor: E120/EI90
	Insulated metal pipes with AF/Armaflex insulation up to 88.9 mm diameter	Wall: E120/EI90 - Floor: EI60	Wall/Floor: EI120
	Combustible pipes with max. 50 mm diameter	Wall: EI120 - Floor: EI60	Wall/Floor: EI120

For detailled information please refer to ETA 17/0845. Remaining space around penetrants can be filled with FBB FireStop Block.

Intumescent Pipe Wraps FiPW

An intumescent single or endless wrap for sealing flammable pipes

Combustible pipes floor application

Combustible pipe wall application

Applications

- Non-metallic pipes
- Polyvinyl Chloride PVC
- Chlorinated Polyvinyl Chloride cPVC
- Medium-density Polyethylene MDPE
- High-density Polyethylene HDPE
- Acrylonitrile Butadiene ABS

Advantages

- Efficient and effective for sealing of pipe openings in floors and walls
- Easy to fit
- Moisture resistant
- No mechanical fixing required
- Economical solution
- Up to 2 hours fire resistance
- Asbestos and halogen free
- Available on a roll for more flexibility in pipe diameters

Certificates

ETA-21/1061

EN 1366-3

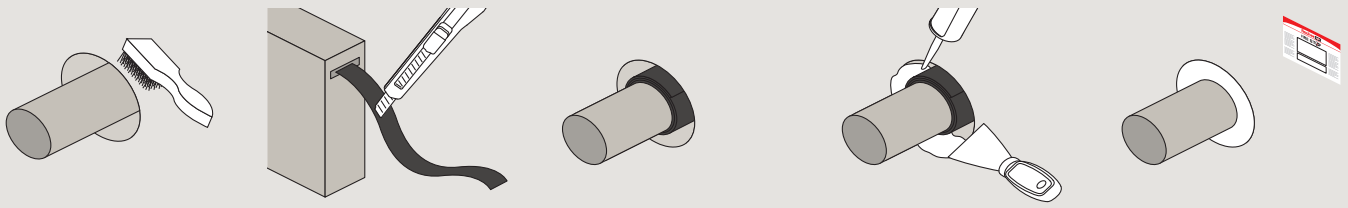
Building materials

Test Building Materials Print

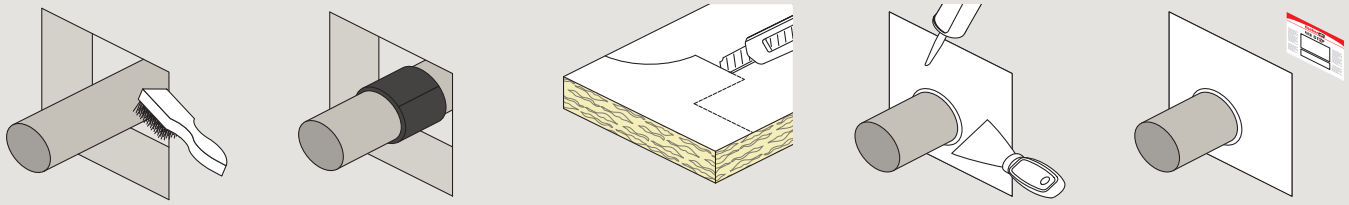
Functioning

- FiPW is a flexible composite strip, which is composed of thermoplastic component containing intumescent graphite in a synthetic compound and enclosed in an outer polyethylene cover.
- Can also be used as a cast-in solution. For large openings, use in conjunction with FCPS or FFSC.

Installation FiPW



Installation FiPW with FCPS

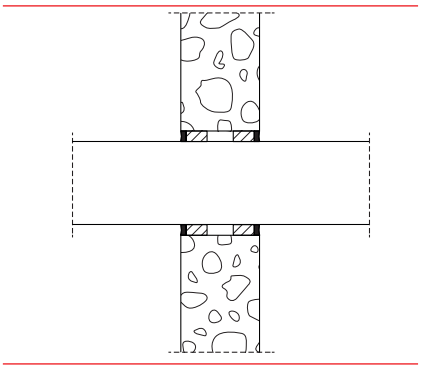


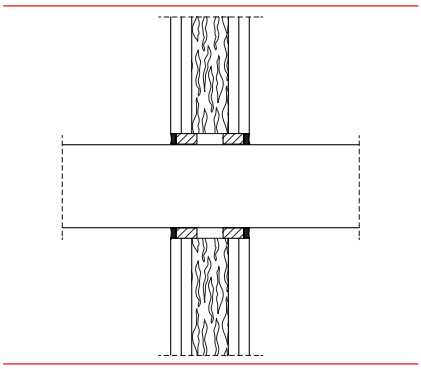
Technical data

	Item no.	Approval ETA	Fits pipe-Ø [mm]	Fire rating [hours]	Sales unit [pcs]
Item					
FiPW E / 2 mm (25 meter roll)	**539608**	●	30 - 250	up to 2	1

Technical data

State	solid
Colour	black inner component in outer foil carrier
Odour	odourless
Density	1.3 kg/m³
Expansion ratio	1 : 25
Significant expansion occurs at temperature	> 180 °C
Storage temperature	+ 5 °C to + 35 °C
Thickness	2 mm
European Technical Assessment	ETA-21/1061
CE marking	2531-CPR-CX010326



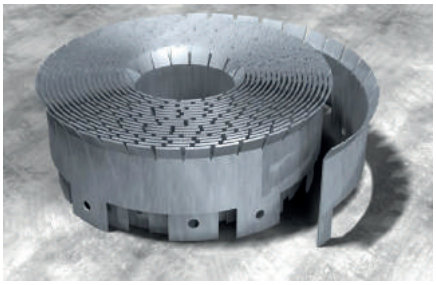


Application data

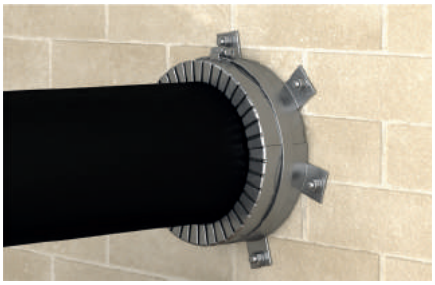
Configuration for up to 120 min.			
Outer pipe diameter [mm]	**No. wraps**	**Thickness**	**Length per stacks [mm]**
40	1	2	138
55	2	4	383
63	2	4	434
75	2	4	509
82	2	4	553
90	3	6	923
110	3	6	1112
125	4	8	1696
160	4	8	2136
200	5	10	3331
250	7	14	5846

Intumescent Wrap Strip FiWS

Universal intumescent wrap strip for sealing combustible services



Universal Collar 2



Combustible pipe application

Applications

- Non-metallic service: PVC 14“ (355 mm), cPVC 8“ (203 mm), ABS 6“ (152 mm), FRPP 4“ (102 mm)
- Insulated service: Steel 10“ (254 mm), Iron 10“ (254 mm), Copper 4“ (102 mm), Glass fibre 3“ (75 mm), AB/PVC flexible foam 1“ (25 mm)
- Cable bunches: 3“ (76 mm)

Advantages

- Efficient and effective for sealing of pipe openings in floors and walls
- Easy to fit
- Moisture resistant
- Freeze-thaw characteristics
- No mechanical fixing required
- Economical solution
- Up to 4 hours fire resistance
- Asbestos and halogen free

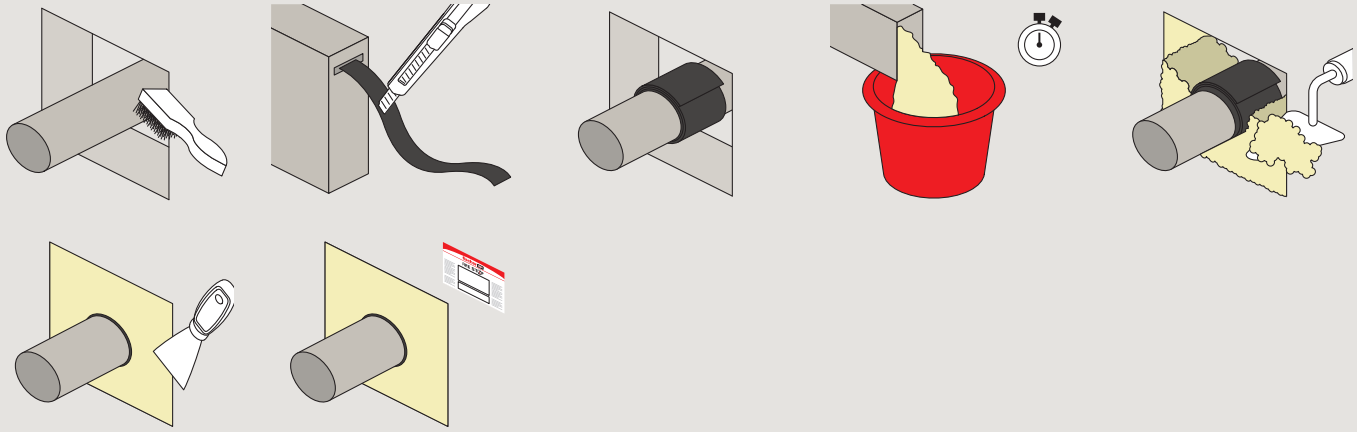
Certificates

ASTM E 814 (UL 1479)
ASTM E 84 (UL 723)

Functioning

- FiWS is a flexible, intumescent graphite-based synthetic compound strip, which has been designed to be installed in both vertical and horizontal applications.
- FiWS has been developed as a PRE or cast-in FireStop solution, and has been designed to work with the fischer Universal Collar for retro fitting or surface mounted applications.
- For large openings, the FiWS can be used in conjunction with the FFSC.

Installation FiWS with FFSC

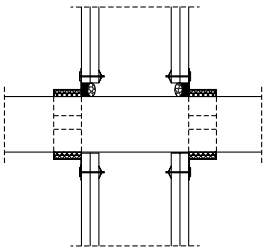


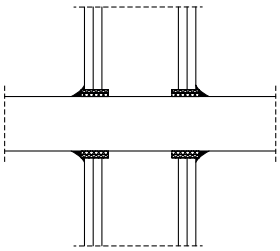
Technical data

Item	Item no.	Dimensions B x L x H	Sales unit [pcs]
FiWS-2	**531397**	50 mm x 6 mm x 5.48 m / 2˝x 1/4˝ x 18˝	1
Universal Collar 2	**536053**	51 mm x 15 m / 2“ x 50 ft	1

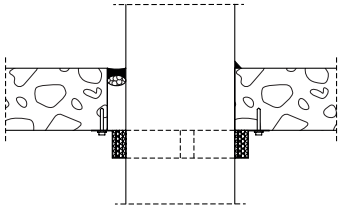
Technical data

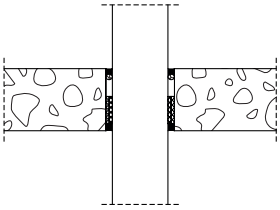
State	solid
Odour	odourless
Density	approx. 1.3 kg/m³
Expansion ratio	1 : 40
Significant expansion occurs at temperature	> 190 °C
Max. recom. pipe-Ø	< 355 mm
Flame spread (ASTM E 84 - UL723)	5
Smoke index (ASTM E 84 - UL723)	5
Colour	black





Both sides of the wall





Botttom of floor

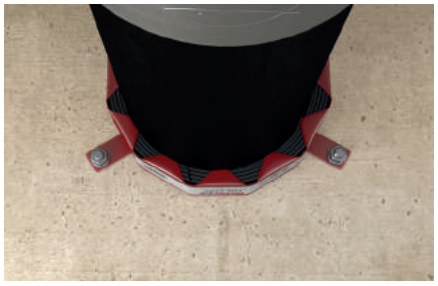
Application data

FiWS - typical configuration		
Pipe diameter [mm]	**No. of layers**	**Length per stacks [mm]**
50	1	200
75	2	580
100	2	740
150	3	1640
200	4	2890
305	4	4210

Fire Collar FFC

Collar for sealing a wide range of combustible pipes where passing through fire rated walls and floors

Combustible pipe floor application



Combustible pipe wall application

Applications

- Non-metallic pipes like PVC, HDPE, MDPE, ABS of various sizes through fire rated walls and floor assemblies

Advantages

- Easy retrofit at any time
- Water resistant
- No minimum annular service required
- Pre-fixed attachment lugs
- Fold back tag for secure fixture around pipe

Certificates

ETA-20/1066

EN 1366-3

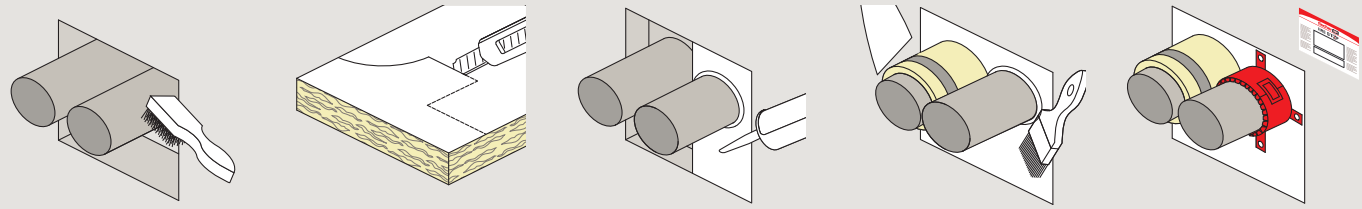
Building materials

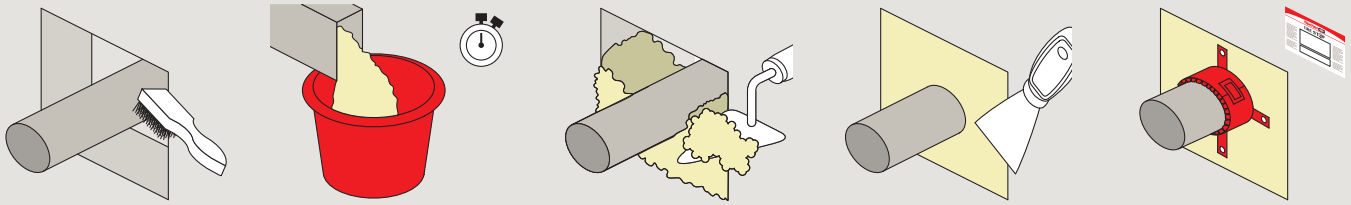
- Flexible and rigid wall constructions
- Solid concrete floors
- Hollow precast floors

Functioning

- FFC is a powder coated cylindrical steel sleeve, which contains a heat reactive graphite-based intumescent material that expands during fire.
- Designed to be securely fitted around the pipe and held in position with a retaining bolt.
- Any gaps up to 10 mm around FFC should be backfilled with FiAM or larger annular space should be closed with FCPS or FFSC.

Installation FFC with FCPS





Technical data

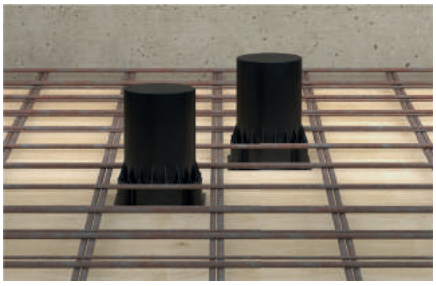
Item	Item no.	Approval ETA	Fits pipe-Ø [mm]	Sales unit [pcs]
FFC 2/30-32	**052456**	●	30 - 250	1
FFC 2/38-40	**052480**	●	38 - 40	1
FFC 2/55	**052481**	●	55	1
FFC 2/63	**052482**	●	63	1
FFC 2/75	**052483**	●	75	1
FFC 2/82	**052486**	●	82	1
FFC 2/90	**052487**	●	90	1
FFC 2/110	**052488**	●	110	1
FFC 2/125	**052489**	●	125	1
FFC 2/160	**052500**	●	160	1
FFC 2/200	**052501**	●	200	1

Technical data

State	solid
Odour	odourless
Fire resistance	up to 4 hours
Available sizes	> 30 mm and max up to 200 mm
Significant expansion occurs at temperature	> 180 °C
Storage temperature	N/a
Shelf life	N/a month
Colour	black inner component in outer foil carrier
European Technical Assessment	ETA-20/1063
CE marking	2531-CPR-CX010320

Cast-in Device FCID Plus

Fast and efficient solution for forming service penetrations through concrete floors



FCID Plus within reinforced concrete floor

Installed pipe through FCID Plus device

Applications

- Sealing and firestopping PVC and HDPE pipes up to 6˝ (150 mm)
- Forms holes up to 8˝ (200mm) thick concrete floors. In combination with extension pieces up to additional 4“ (100mm) possible.
- FCID Plus creates recesses in slabs for lower positioning of soil
- Manifold units in wet room applications

Advantages

- Quick installation
- Watertight seal
- Higher tolerance
- Easily extendable
- Wider base for further connections
- No further collars or wraps required
- Reduce working at heights
- Cost saving
- Reduced foot plate
- Eco-friendly extension tube
- Closer proximity positioning
- Free of asbestos, solvents and any hazardous ingredients.

Certificates

ASTM E 814 (UL 1479)

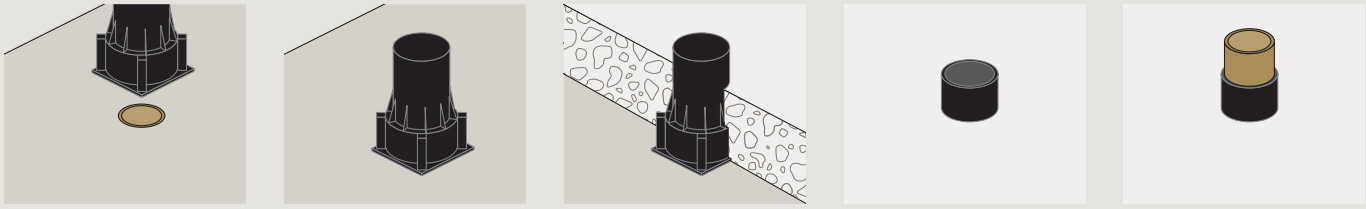
Building materials

- Reinforced cast concrete slabs
- Some prefabricated slab systems (subject to design)

Functioning

- FCID Plus is a pass through system, which is constructed from a highly resilient polypropylene material and contains a powerful intumescent graphite band.
- The FCID Plus is rugged enough to withstand the force and load of a concrete pour, yet lightweight enough to permit easy placement and handling.

Installation FCID Plus



Technical data

Item	Item no.	Fits pipe-Ø [mm]	Height H H [mm]	Sales unit [pcs]
FCiD Plus 50	**566285**	50/2“	200/8“	12
FCiD Plus 75	**566286**	75/3“	200/8“	12
FCiD Plus 100	**566287**	100/4“	200/8“	12
FICD Plus 150	**566288**	150/6“	200/8“	6
FCiD Plus 50 extension	**566289**	50/2“	100/4“	6
FCiD Plus 75 extension	**566290**	75/3“	100/4“	6
FCiD Plus 100 extension	**566291**	100/4“	100/4“	6
FCiD Plus 150 extension	**566292**	150/6“	100/4“	6
FCiD Plus 50 Deck adapter	**566293**	50/2“	–	6
FCiD Plus 75 Deck adapter	**566294**	75/3“	–	6
FCiD Plus 100 Deck adapter	**566295**	100/4“	–	6
FCiD Plus 150 Deck adapter	**566296**	150/6“	–	6

Technical data

State	solid
Odour	odourless
Shell material	Polyethylene
Fire resistance	up to 4 hours - BS 476: Part 20 and AS 1530: Part 4
Extension or reduction in height possible	Yes
Standard flange width	min 154 mm and max 254 mm
Significant expansion occurs at temperature	> 190 °C
Shelf life	N/a month
Colour	black

Intumescent Pillows FiP

FireStop solution for temporary and permanent service penetrations in vertical and horizontal applications

Electrical floor application

Electrical wall application

Applications

- Metal pipes
- Cables/cable trays
- Electrical trunking
- Electrical trunking: for conformance with the 17th Edition of the IEE Wiring Regulations (BS 7671:2008)

Advantages

- Approved as permanent fire barrier
- Reusable
- Dry installation
- Quick and easy installation
- No shelf life
- Moisture resistant
- Up to 2 hours fire protection

Certificates

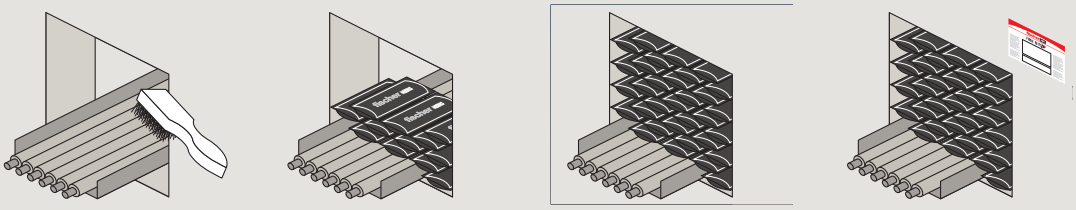
ETA-20/1063

EN 1366-3
EN ISO 10140-3:1995

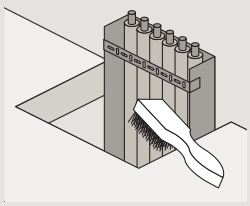
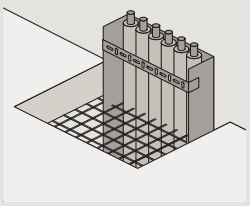
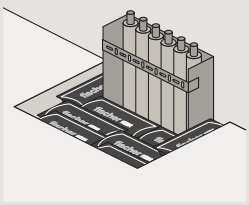
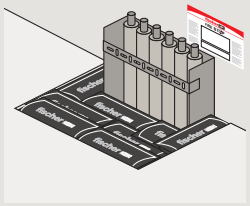
Functioning

- FiP is an intumescent graphite and mineral fibre blend covered in a glass fibre PVC coated cloth bag.
- FiP is suitable for applications where temporary and permanent fire barriers are required.

Installation FIP - Wall application



Installation FIP - Floor application

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Technical data

Item	Item no.	Approval ETA	Dimensions [mm]	Weight per pillow [g]	Sales unit [pcs]
FiP/S	**516960**	●	330 x 50 x 20	80	1
FiP/Std	**533890**	●	330 x 100 x 20	120	1
FiP/M	**516959**	●	330 x 200 x 25	230	1
FiP/L	**516958**	●	330 x 200 x 45	420	1

Technical data

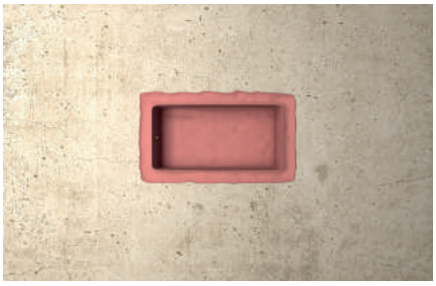
State	solid
Odour	-
Expansion	-
Significant expansion occurs at temperature	> 140
European Technical Assessment	ETA-20/1063
CE marking	2531-CPR-CX010320
Colour	black

Estimation quantities

Width	Length [mm]												
	Size	Large	Medium	Large	Medium	Large	Medium	Large	Medium	Large	Medium	Large	Medium
[mm]	Seal type	100	100	300	300	500	500	700	700	900	900	1,000	1,000
200	**Wall**	3	5	7	13	12	22	17	31	21	39	24	47
	Floor	2	3	4	7	6	12	9	17	11	22	12	27
400	**Wall**	5	9	14	26	24	44	33	61	42	78	47	95
	Floor	3	5	7	15	12	24	17	34	22	43	24	52
600	**Wall**	7	13	21	39	35	65	49	91	63	117	70	143
	Floor	4	7	11	22	18	36	25	51	33	65	36	79
800	**Wall**	9	18	28	52	47	87	66	122	84	157	94	192
	Floor	5	10	15	29	24	48	34	67	33	87	48	107
1000	**Wall**	10	22	35	65	59	109	82	152	105	196	117	217
	Floor	6	12	18	36	30	60	42	84	54	108	60	120

Intumescent Putty Pad FiPP

Intumescent Putty Pad FiPP



Internal application

External application

Applications

- Most flexible partition assemblies
- Fire and insulation resistance
- Acoustic sealing
- Air permeability
- Plastic and metal electrical outlets

Advantages

- Excellent acoustic properties
- Internal and external versions available
- Primerless adhesion to most substrates
- Robust detail part E handbook accepted
- No electrical conductivity
- Air permeability
- Quick and simple installation

Certificates

EN ISO 10140
EN 1026
EN 1366-3

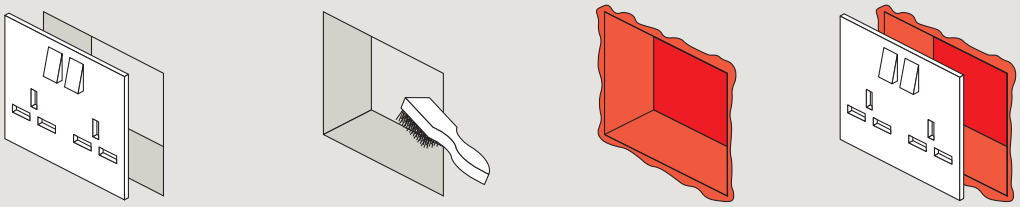
Building materials

- Most flexible wall partitions constructed from plasterboard/gypsum board, timber and steel studs

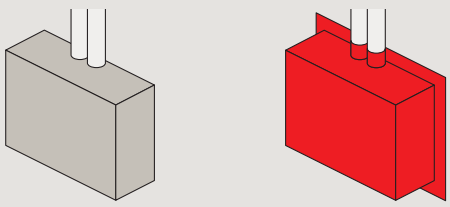
Functioning

- Can maintain the fire resistance and insulation of flexible wall partitions, where they are penetrated by plastic or metal electrical outlets and cables.
- FiPP can also be used for upgrading the acoustic performance of flexible partitions.

Installation FiPP - Internal application



Installation FiPP - External application



Technical data

Item	Item no.	Dimensions [mm]	Fire rating [hours]	Sales unit [pcs]
FiPP/I-S	**053578**	170 x 170	2	1
FiPP/I-D	**054757**	230 x 170	2	1
FiPP/E-S	**506261**	155 x 155	2	1
FiPP/E-D	**506262**	210 x 180	2	1

Technical data

Base material	Drywall
Specific grafity	1.55 kg/m^3
Accoustic performance	66 dB
Colour	red

Coated Panel System FCPS

FireStop coated panel system for multiple service penetrations

Mixed penetration through the floor

Mixed penetration through the wall

Applications

- Small and large openings
- Cables/cable trays
- Air ducts with dampers
- Metallic or non-metallic pipes

Advantages

- Approved for light partition walls
- Can be installed dry
- No coatback required for services
- Excellent acoustic properties
- Asbestos and halogen free

Certificates

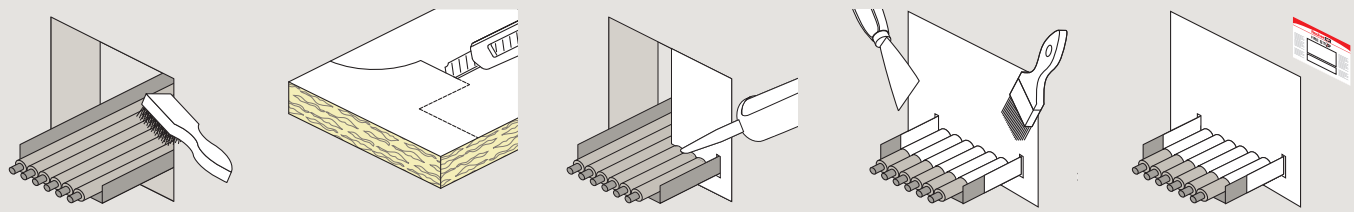
ISO 10140
EN 1366-3

ETA-20/1062
ETA-20/1067

Functioning

- FCPS is a rock fibre core coated with ablative sealant FPC for use in both vertical and horizontal applications.
- It maintains the sound reduction index of a structure.
- The FCPS will allow additional services to be added or removed and will accommodate thermal and mechanical movement of services.
- FPC can be used to adhere sections of FCPS board when jigsaw assembly is required and can also be used to enhances smoke and acoustic performance.

Installation FCPS



Technical data

Item	Item no.	Approval ETA	Dimensions [mm]	Content [kg]	Contents [ml]	Adapted for	Sales unit [pcs]
FCPS/50	**053252**	●	1200 x 600 x 50	–	–	–	1
FPC/5kg	**053253**	●	–	5	–	–	1
FiAM 310	**053011**	●	–	–	310	–	1
KPM 2 Plus	**053117**	–	–	–	–	FiAM 310, FFRS 310, UFS 310, FiGM 310	1

Technical data

Density	140 kg/m^3
Coating thickness	1 mm WTF
Fire resistance	depending on application
Accoustic performance	27 dB
Thermal conductivity	0,034 W/mK at 10 °C
Maximum size of seal	Wall 6,76 m^2, floor 1,65 m^2
Maximum size unsupported	1.2 x 1.2 m
Density of panel coating FPC	1.25 - 1.375 g/cm^3
Panel coating FPC coverage	ca. 1,6 kg/m^2 l/m^2
Shelf life of panel coating FPC Art.-No. 53253	12 month
European Technical Assessment	ETA-20/1062, ETA-20/1067
CE marking	2531-CPR-CX010319, 2531-CPR-CX010329

Application data

Services	Rigid partition walls [Fire rating - hours]	Flexible partition walls [Fire rating - hours]	Concrete floors [Fire rating - hours]
Cable ladder/tray/basket	Up to 2	Up to 2	Up to 2
Cables up to 26 mm diameter	Up to 2	Up to 2	Up to 2
Cables up to 80 mm diameter	Up to 2	Up to 2	Up to 2
Steel/Copper pipes up to 159 mm diameter	Up to 2	Up to 2	n/a
PVC pipes* up to 110 mm diameter	Up to 1	Up to 1	n/a
Blank seals	Up to 2	Up to 2	Up to 2

* PVC Pipes must be protected in conjunction wit h FiPW, which must be securely sealed in place wit hin the FCPS.

FireStop Compound FFSC

Structural fire resistant seal for floors and walls

Mixed penetration through the floor

Mixed penetration through the floor

Applications

- Metallic services with steel and cast iron pipes
- Non-metallic services with FiPW intumescent pipe wrap or FFC pipe collar
- Voids or cavities in floors or walls
- Cable bunches

Advantages

- Water based
- Low VOC
- Load bearing
- Excellent acoustic proper-ties
- Both vertical and horizontal applications
- Halogen and asbestos free

Certificates

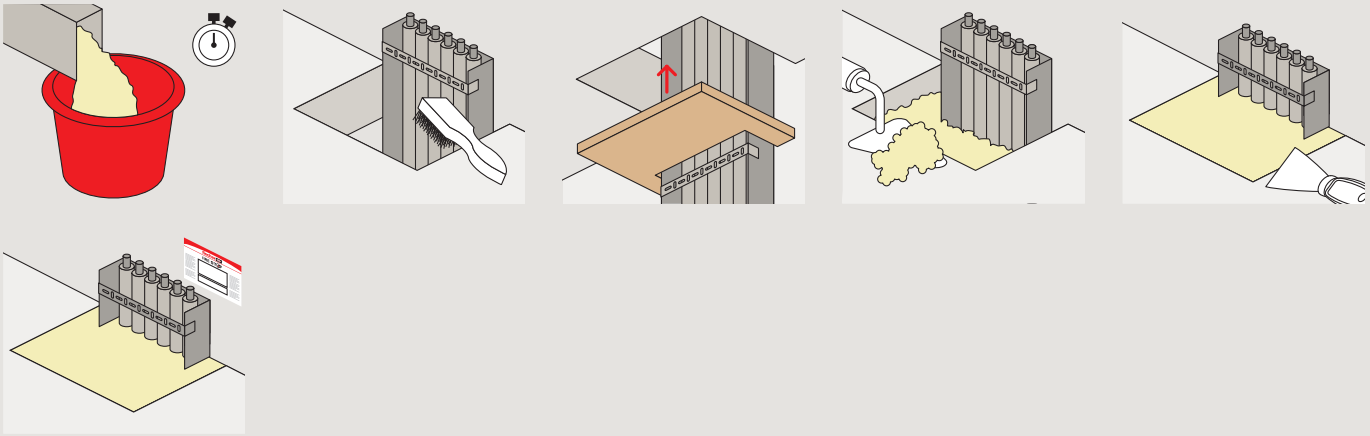
ETA-21/0678

EN ISO 10140
EN 1366-3
ASTM E 814 (UL 1479)

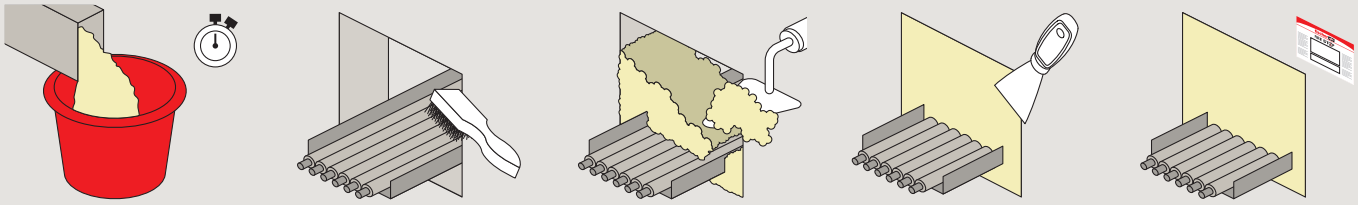
Functioning

- FFSC is a specially formulated gypsum based compound, which when mixed with water can be trowelled or poured.
- FFSC can provide up to 4 hours integrity and insulation.
- Set within 45 min depending on ambient temperature.
- Capable of accommodating foot traffic within 72 hours.

Installation FFSC - Floor application



Installation FFSC - Wall application



Technical data

	Item no.	Approval ETA	Content [kg]	Sales unit [pcs]
Item				
FFSC/20 kg	**533247**	●	20	1

Technical data

Base material	Gypsum
Bulk density	950 kg/m³
Wet density	1850
Setting time	20 min
Storage temperature	+ 5 °C to + 25 °C
Accoustic performance	59 dB
Reaction to fire (EN13501-1)	Class F
Shelf life	12 months month
European Technical Assessment	ETA-21/0678
Tensile strength	30 N/mm²
Thermal conductivity	0.57 W/mK at 50 %, 0.65 W/mK at 90 %
Colour	off white

Application data

	By volume Powder to water ratio
Pourable grade	2.5 : 1
Trowelable grade	3 : 1

* These are approximate calculations based on 20 kg bags. The coverage does not take into account the percentage of the hole filled with services.

** As a further safety margin, we would recommend that all floor seals with clear areas greater than 1,100 mm x 1,100 mm mus t be reinforced.

Load bearing note: the open area free of services: Thickness of seal ratios for non-reinforced seals given above allow an ample safety margin for normal foot traffic, e.g., loads of two men plus equipment with a combined weight up to 200 kg.

VentiStop Cavity Barrier - FFB-VS

Effective ventilated fire barrier designed to close the void between the inner and outer construction elements

FFB-VS Ventistop installed with Multi-Purpose Bracket

FFB-VS Ventistop installed with DHM Anchor

Applications

- Horizontal cavities between the inner and outer construction elements

Advantages

- Tested up to 120 minutes integrity and 90 minutes insulation (120 min insulation with FFB-VS HP80) utilising the heating and pressure conditions of EN 1363-1: 2017 and ASFP TGD19: 2014 - Open State Cavity Barriers.
- Suitable to close 25 & 50 mm ventilation gap
- Voids up to 450 mm wide
- Free of halogens, asbestos, fi bres and silica and is non-toxic
- Long life expectancy
- Contributes to green building

Certificates

BS 8414
EN 1363-1-TGD19
NFPA 285

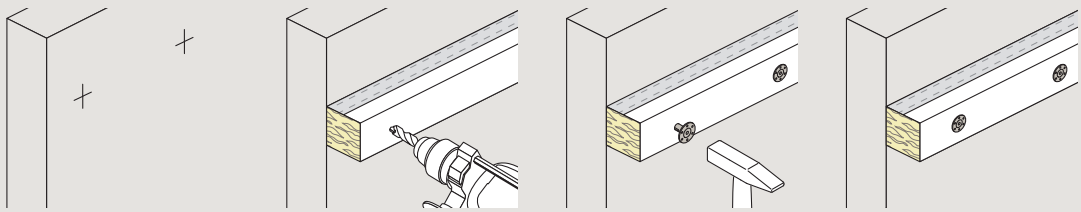
Building materials

- Concrete slabs, columns and walls

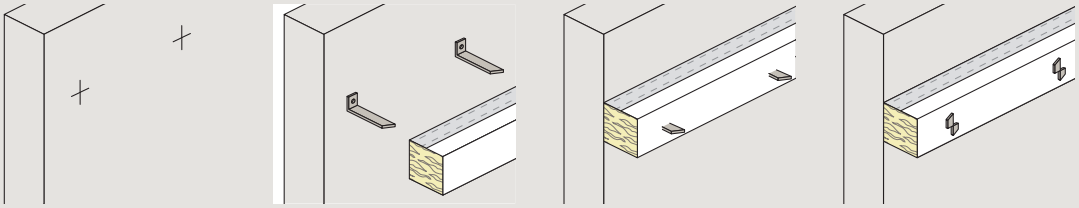
Functioning

- FFB-VS a foil-faced stone wool pre-cut unit, which has a powerful intumescent graphite strip bonded to the exposed face. The intumescent graphite strip is pre-wrapped with a durable polythene adhesive sheet to prevent water ingress.
- FFB-VS has been designed to provide a 25 & 50 mm ventilation gap, that allows air fl ow and moisture to pass down the back of the cladding. Under fire conditi-ons, the powerful intumescent along the front edge expands horizontally to close the gap and prevent the passage of fire.

Installation FFB-VS with DHM



Installation FFB-VS with Multi Purpose Bracket



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Technical data

Item	Item no.	To suit cavity void width [mm]	Sales unit [pcs]
FFB-VS/25-50	521520	25 - 50	1
FFB-VS/51-100	521521	51 - 100	1
FFB-VS/101-150	521522	101 - 150	1
FFB-VS/151-200	521523	151 - 200	1
FFB-VS/201-250	521524	201 - 250	1
FFB-VS/251-300	521525	251 - 300	1
FFB-VS/301-350	521526	301 - 350	1
FFB-VS/351-400	521527	351 - 400	1
FFB-VS/401-450	521528	401 - 450	1

IMPORTANT: Please provide TOTAL cavity width for your application, excluding an y insulation there might be.

Technical data

Item	Item no.	To suit cavity void width [mm]	Sales unit [pcs]
FFB-VS50/51-100	545628	51 - 100	1
FFB-VS50/101-150	545629	101 - 150	1
FFB-VS50/151-200	545630	151 - 200	1
FFB-VS50/201-250	545631	201 - 250	1
FFB-VS50/251-300	545632	251 - 300	1
FFB-VS50/301-350	545633	301 - 350	1
FFB-VS50/351-400	545634	351 - 400	1
FFB-VS50/401-450	545635	401 - 450	1

IMPORTANT: Please provide TOTAL cavity width for your application, excluding an y insulation there might be.

Technical data

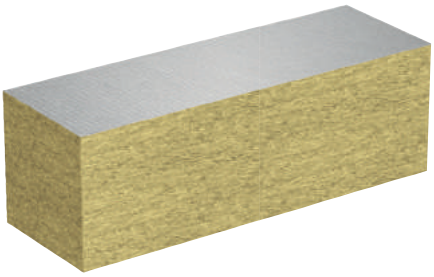
Description	Foil faced stone wool with a black intumescent leading edge
Fire resistance	up to 120 min
Closure time - FFB-VS	< 5 min
Activation	approx. 180 °C
Expansion pressure	approx. 7 N/mm^2
Density	Stone wool - 90 kg/m^3, intumescent 1.3 g/cm ^{3}
Weather resistance	Yes
Sag	0 %
Open void size	25 - 50 mm
Dimensions	80 mm thick, 1000 mm long mm
Width	30 - 450 mm
Fixing points (brackets or anchor DHM)	300 mm
Colour	White/red/silver/black

Technical data

Item	Item no.	To suit cavity void width [mm]	Colour	Fire rating [hours]	Sales unit [pcs]
Multi Purpose Bracket	**563201**	230 x 25 x 1 (A2)	silver	N/a	250
Multi Purpose Bracket	**551868**	390 x 25 x 1 (A2)	silver	N/a	1
Multi Purpose Bracket	**551954**	500 x 25 x 1 (A2)	silver	N/a	1
FCI Cassette tray cavity barrier	**554125**	1200 x 100 x 50	silver	N/a	1

Cavity FireStop Clad FCFcl

Designed to protect the building void between the inner and outer construction elements



FCFcl Cavity Clad - Vertical application

FCFcl Cavity Clad - Horizontal application

Applications

- Horizontal and vertical cavities between the inner and outer construction elements
- Ceiling Cavity Barriers
- Under Floor Cavity Barriers
- Slab Edge Barriers

Advantages

- Tested to EN 1366-4 & BS 476
- Classification to EN 13501-2, EN 13501-1
- Air Permeability to EN 1026 to 600Pa
- Acoustic Isolation to EN 10140 to 31dB
- Superior Level of Sustainability
- Encased Fibre Migration for Air Plenum Use
- Floor & Wall voids up to 590 mm wide

Certificates

CE

BS 8414
EN ISO 10140
EN 1026
EN 1366-4
NFPA 285

ETA-21/1062

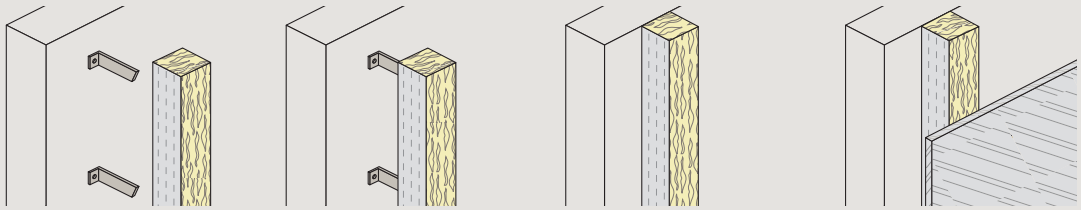
Building materials

- Concrete slabs, columns and walls
- Curtain wall assemblies

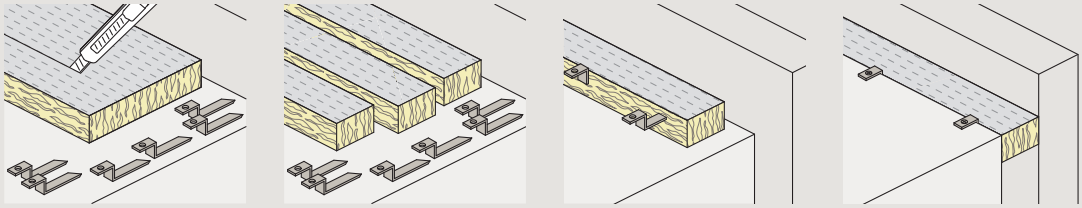
Functioning

- FCFcl Cavity Clad comprises of a one piece closed dimension stone wool core.
- The product is encased with an aluminum foil face which provides class ‚O' rating and exhibits excellent resistance to smoke.
- The FCFcl Cavity Clad provides a resilient lateral compression which is required to ensure a tight fit.

Installation FCFcl



Installation FCFcl



Technical data

Item	Item no.	Approval ETA	To suit cavity void width [mm]	Sales unit [pcs]
FCFcl 75	**546210**	●	1200 x 600 x 75	1
FCFcl 100	**053046**	●	1200 x 1000 x 100	1
FCFcl 1200	**546209**	●	1200 x 1200 x 100	1

IMPORTANT: Please provide TOTAL cavity width for your application, excluding any insulation there might be. FCFcl Cavity Clad shall be cut 5 mm (1/5 in.) or 10 mm (3/8 in.) oversize. * Depending on design & configuration of the FCFcl Cavity Clad.

Technical data

Item	Item no.	To suit cavity void width [mm]	Fire rating [hours]	Sales unit [pcs]
Multi Purpose Bracket	**563201**	230 x 25 x 1 (A2)	N/a	250
Multi Purpose Bracket	**551868**	390 x 25 x 1 (A2)	N/a	1
Multi Purpose Bracket	**551954**	500 x 25 x 1 (A2)	N/a	1

Technical data

Description	Foil faced structural stone wool composite
Fire resistance	EN1366-4 up t o 120 minutes
Thermal conductivity	0.35 bis 0.36 W/mK
Density	80 kg/m^3
Base material	Stone wool
Accoustic performance	31 dB
Air permeability	600 pa - 100 pa 2.6/4.2 m ^{3}/h/m^2
Thickness	75 and 100 mm
Bracket	Required cavity ≥ 150 mm (2 per meter)
Compression	5 or 10 mm
Colour	inside yellow, outside silver
European Technical Assessment	ETA-21/1062
CE marking	2531-CPR-CX010328

FireStop Foam

A single component filler foam with effective fire resistance

Back filling material

Construction joint application

Applications

- Construction joints in walls and floors
- Insulating and sealing doors and windows: non-fire rated application
- Backfilling material only for service penetrations
- Filling general voids and cavities: nonfire rated application

Advantages

- High foam yield
- No post shrinkage or expansion
- CFC free propellant
- Effective seal against smoke
- Rendered, cut, painted or sanded
- High bond strength
- Good adhesion to most building materials
- Excellant acoustic and thermal properties

Certificates

CE ETA

EN ISO 10140
EN 1366-4

ETA-20/0770

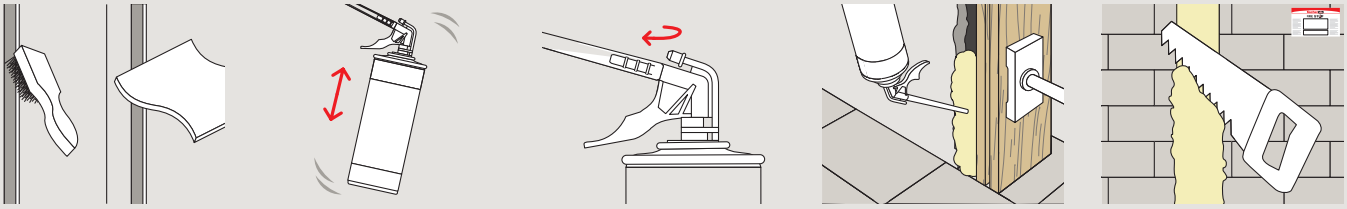
Building materials

- Concrete
- Masonry
- Steel as backing material
- Timber as backing material

Functioning

- FireStop Foam is a single component, self expanding polyurethane foam, which has been designed to be self curing via the absorption of moisture from the atmosphere.
- The foam has excellent adhesion properties and can adhere to most building materials. When the foam sets it cures to a semi-rigid structure, which accommodates low movement and vibration.

Installation FireStop Foam



Technical data

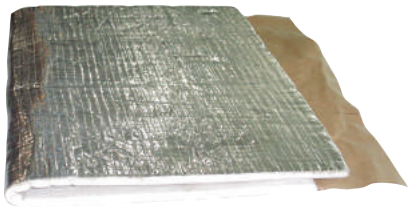
Item	Item no.	Approval ETA	Contents [ml]	Sales unit [pcs]
FireStop Foam Hand	**042757**	●	750	1
FireStop Foam Gun	**043712**	●	750	1

Technical data

Base material	Polyurethane
Consistency	stabile foam
Curing system	Moisture-cure
Yield	1,000 ml yields 35 - 40 l cured foam when extruded in beads
Specific grafity	extruded, fully cured approx. 27 kg/m^3
Skin-forming time	10 min (at 23 °C and 65% relative humidity)
Drying time	Non tacky after approx. 8 min
Shrinkage	No
Storage temperature	+ 5 °C to + 25 °C
Shelf life	up to 12 months when stored in unopened cartridges under cool, dry conditions month
Construction material class	B1 as per DIN 4102
STC rating	56 dB
Colour	red
European Technical Assessment	ETA-20/0770

Thermal Defense Wrap TDW

Thermal defense wrap for high insulation and temperature stability



Electrical floor application

Electrical wall application

Applications

- Metallic services with steel and cast iron pipes
- General construction joints: wall to floor to head of wall
- Drywall partitions, connections
- FCPS joints

Advantages

- Remains flexible -10 to +160
- Low VOC
- High insulation and temperature stability
- Pre-formed 300 mm roll
- Fast and efficient installation
- Remains flexible without aging

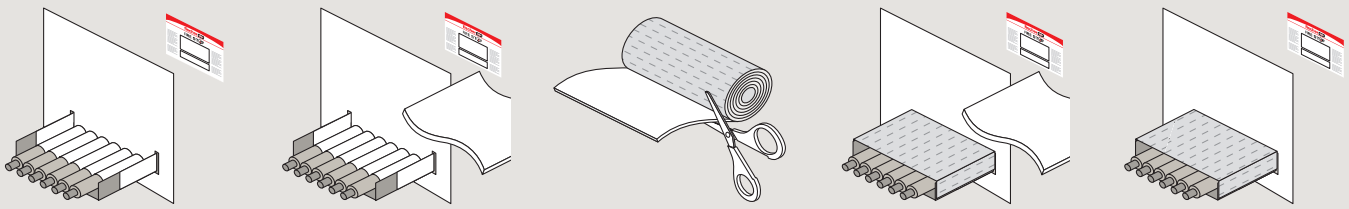
Certificates

EN ISO 10140
EN 1366-3

Functioning

- TDW is ceramic-based technology of bio-soluble vitreous fibres and flexible organic builders, and has been designed to maintain the compartmentalisation of a fire-rated assembly.
- The unique design of the TDW allows for movement of services, maintain the necessary insulation of the services and prevents temperature, rise of the services at the cold face. At normal temperature the TDW remains flexible and permits thermal and mechanical movement.
- It provides up to 2 hours integrity and insulation.

Installation TDW with FCPS



Technical data

Item	Item no.	Dimensions [mm]	Sales unit [pcs]
TDW 1	**531398**	300 x 1000	1

Technical data

Apperarance	white, fibrous material with aluminium foil face
Base material	Calcium magnesium silicate fibres
Water solubility	N/a
Alufoil thickness	0.25 mm
Storage temperature	+ 5 °C to + 25 °C

3
Basics – good to know.

Fire prevention

Fire prevention is a critical consideration for those who are responsible for creating the design, specification and construction of new buildings, with consideration in the ongoing maintenance of occupied premises.
As the causes of fire vary and are often unpredictable, construction measures are being designed to influence the formation and spread of fire, smoke and toxic gases, by minimising the available factors needed to create a fire or to limit the spread of fire once it has started.
Effective fire fighting within a building is generally achieved through a combination of active and passive FireStop systems and, when used in conjunction with each other, provide a balanced fire protection strategy.

Active FireStop systems

Fire prevention is a critical consideration for those who are responsible for creating the design, specification and construction of new buildings, with consideration in the ongoing maintenance of occupied premises.
As the causes of fire vary and are often unpredictable, construction measures are being designed to influence the formation and spread of fire, smoke and toxic gases, by minimising the available factors needed to create a fire or to limit the spread of fire once it has started.
Effective fire fighting within a building is generally achieved through a combination of active and passive FireStop systems and, when used in conjunction with each other, provide a balanced fire protection strategy.
Active fire prevention systems are designed to react to the outbreak of a fire, which is then suppressed with the help of sprinkler systems, halogen installations, fire extinguishers or other proactive mechanical systems. The effects of the fire may also be lessened by the removal of smoke from the equation. By including alarms and emergency lighting, active systems also serve to provide escape paths for people inside the building.

Passive fire prevention systems

Passive fire prevention is an integral component, which is designed and built in to the fabric of the structure. It is also an essential element of the fire safety of a building. The risk of fire can be minimised by dividing the building into a series of compartment/cells bounded by fire rated walls and floors. To maintain the firestopping integrity of a compartment/cells, any gaps, openings, void or channels within the fire rated walls or floors must be sealed with an approved or certfied system to prevent the passage of fire, smoke and toxic gases.

Building codes and national regulations.

Most model building codes have very clear requirements on passive fire protection.
“Fire investigation reports have consistently shown that unprotected or improperly protected penetrations and joints cause millions in property damage and contribute to the loss of life and injuries due to the uncontrolled migration of fire, smoke and toxic gases.” In order to promote life safety and property protection, the national building codes include fire testing and performance requirements for penetration firestop and fire resistive joint systems.
The following regulations are published as statutory instruments by Parliament with respect to life safety purposes:

England and Wales 1991

Section 11.2 of Approved Document B3 states: “If a fire separating element is to be effective, then every joint, or imperfection of fit, or opening to allow services to pass through the element, should be adequately protected by sealing or fire stopping so that the fire resistance of the element is not impaired.” Section 11.12 adds, under the heading of ‘Fire stopping’, a requirement that: “Joints between fire separating elements should be fire stopped; and all openings for pipes, ducts, conduits or cables to pass through any part of a fire separating element should be: Kept as few in number as possible and kept as small as practical fire-stopped (which in the case of a pipe or duct, should allow for thermal movement).”

BS 7671: 2008: United Kingdom

The 17th edition of the IEE Wiring Regulations (BS 7671:2008) is the national standard in the United Kingdom for all commercial, domestic and industrial wiring installations. Section 527-02-01 states: “Where a wiring system passes through elements of building construction such as floors, walls, roofs, ceilings, partitions or cavity barriers the openings remaining after passage of the wiring systems shall be sealed according to the degree of fire resistance required of the element concerned.” Section 527-02-02 states: “where a wiring system such as conduit, cable ducting, cable tr unking, busbar or busbar trunking penetrates an element of building cons truction having specified fire resistance it shall be internally sealed so as to maintain the degree of fire resistance of the respective element as well as being externally sealed to maintain the required fire resistance.”

Germany: Federal Building Order

In Germany, the Federal State Building Order is regulated at the level of the federal states. Therefore, there are 16 regional state building codes with their own regulations and guidelines. The 2002 Directive Building Code and the 2005 Directive Guidelines for conduit and ventilation systems form the basis for further consideration. The list of the Technical Building Regulations – M-ETB, includes other codes, such as the MLAR and the German Ventilation Systems Directive – MLüAR. Once guidelines are adopted into the list at regional state level List of Technical Building Regulations–LTB, the guidelines become legally binding.

NFPA 101 Life Safety code: United States

Life Safety Code addresses those construction, protection, and occupancy features necessary to minimise danger to life from the effects of fire, including smoke, heat, and toxic gases created during a fire. The Code establishes minimum criteria for the designs of egress facilities, so as to allow prompt escape of occupants from buildings or, where desirable, into safe areas within buildings. The Code also addresses protective features and systems, building services, operating features, maintenance activities, and other provisions in recognition of the fact that achieving an acceptable degree of life safety depends on additional safeguards to provide adequate egress time or protection for people exposed to fire. Relevant firestop requirements can be found in below mentioned references:

8.2.2 Compartmentation Continuity
8.2.3.2.4 Penetrations and Openings In Fire barriers
8.2.4.4 Penetrations and Openings In Smoke Partitions
8.3.2 Continuity of Smoke Barriers

NFPA 5000 Building Construction and Safety-code

NFPA 5000 – Building Construction and Safety Code is a model building code developed by the National Fire Protection Association. For the most part, the requirements for fire stops are the same in NFPA 5000 as they are in the IBC. It also addresses joints between assemblies in a similar manner to the IBC. NFPA 5000 states openings must be protected by „a system or material capable of restricting the transfer of smoke“. It addresses protection for through-penetrations and membrane penetrations in Section 8.8 using the same test methods as the IBC. The requirements for F and T ratings are also the same. Joint systems, including perimeter joints at cur tain walls, are addressed in the same manner as the IBC.

IBC International Building Code: United States

In the Past: The Regional Model codes developed by the Building Officials Code Administrators International (BOCA) were used on the East Coast and throughout the Midwest of the United States, while the codes from the Southern Building Code Congress International (SBCCI) were used in the Southeast and the codes published by the International Conference of Building Officials (ICBO) covered the West Coast and across to most of the Midwest. After three years of extensive research and development, the first edition of the International Building Code was published in 1997. The code was patterned on three legacy codes previously developed by the organizations (BOCA, SBCCI, ICBO) that constitute IBC. By the year 2000, ICC had completed the International Codes series. Relevant firestop requirements can be found in below mentioned references:

702 Definitions
704.9 Separation of Vertical Openings - Sprinkler Exception
708 Fire Partitions 1 Hour Rating
709 Smoke Barriers 1 Hour Rating
710 Horizontal Assemblies
711 Penetrations (General)
711.3.2 Sprinkler Heads Electrical Boxes
711.4.1.2 „F“ & „T“ Rating Requirements
712 Fire-Resistant Joint Systems
712.4 Curtain Wall to Edge of Slab

Other relevant codes from IBC: United States

The International Building Code and International Residential Code are just a few of the comprehensive I-Codes the Code Council has created. The publications of the codes allow for easier following from members and allow them to observe and study the model code. Some of these codes have specific practices, such as the International Fire Code and the International Green Construction Code, or the IGCC. Here is the current list of I-Codes developed and published by the Code Council:

International Building Code
International Residential Code
International Fire Code
International Plumbing Code
International Mechanical Code
International Fuel Gas Code
International Energy Conservation Code
IBC Performance Code
International Wildland Urban Interface Code
International Existing Building Code
International Property Maintenance Code
International Private Sewage Disposal Code
International Zoning Code
International Green Construction Code

Other relevant code

NFPA is responsible for 300 codes and standards that are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation. Some of the other widely used NFPA codes are: NFPA 70 NEC – National Electrical Code NFPA 96 - Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations. NFPA 221 - Standard for High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls

Advanced product selection guide.

Product										Approved to		
	EN 1364-4	EN 1366-3	EN 1366-4	ASTM E 814 (UL 1479)	ASTM E 84 (UL 723)	ASTM E 1966 (UL 2079)	EN ISO 10140	EN 1026	EN 1027	TGD19	EN 13501-1	NFPA 285
Intumescent Acoustic Mastic FiAM	–	●	●	–	●	●	●	●	–	–	–	–
Intumescent Acoustic Mastic FiAM US	–	–	–	●	●	●	–	–	–	–	–	–
Fire Rated Silicone Sealant FFRS	–	–	●	–	–	–	●	●	–	–	–	–
Rapid Fire Seal RFS 640	–	–	–	●	●	●	–	–	–	–	–	–
Fire | Barr ElastoSeal FFB-ES	●	●	●	–	–	–	●	●	●	–	–	–
Universal FireStopping Sealant UFS 310	–	–	–	●	●	●	–	–	–	–	–	–
Intumescent Graphite Mastic FiGM	–	●	–	–	–	–	●	●	–	–	–	–
Foam Barrier System PLUS	–	●	–	●	●	–	–	–	–	–	●	–
Intumescent Pipe Wrap FiPW	–	●	–	–	–	–	–	–	–	–	–	–
Intumescent Wrap Strip FiWS	–	–	–	●	●	–	–	–	–	–	–	–
Fire Collar FFC	–	●	–	–	–	–	–	–	–	–	–	–
Cast in Device FCID	–	–	–	●	–	–	–	–	–	–	–	–
Intumescent Pillows FiP	–	●	–	–	–	–	●	–	–	–	–	–
Intumescent Putty Pad FiPP	–	●	–	–	–	–	●	●	–	–	–	–
Coated Panel System FCPS	–	●	–	–	–	–	●	–	–	–	–	–
FireStop Compound FFSC	–	●	–	●	–	–	●	–	–	–	–	–
VentiStop Cavity Barrier FFB VS	–	–	–	–	–	–	–	–	–	●	–	●
Cavity FireStop Clad FCFcl	–	–	●	–	–	–	●	●	–	–	–	●
FireStop Foam	–	–	●	–	–	–	●	–	–	–	–	–
Thermal Defense Wrap TDW	–	●	–	–	–	–	–	–	–	–	–	–

Approvals, markings and their importance.

Britisch Standard

BS 8414:2020
Fire performance of external cladding systems. Test method for non-loadbearing external cladding systems

European Norm

EN 13501-1:2019
Fire classification of construction products and building elements. Reaction to Fire.

EN 13501-2:2016
Fire classification of construction products and building elements. Resistance to Fire.

EN 1366-3:2020
Fire resistance tests for service installations – Penetration seals.

EN 1364-4:2014
Fire resistance tests for non-loadbearing elements – Curtain walling-Part Configuration.

EN 1366-4:2021
Fire resistance tests for service installations - Linear joint seals.

EN ISO 10140:2021
The laboratory measurement of airborne sound insulation of buildng elements.

EN 1026: 2016
Air permeability test method.

EN 1027: 2016
Water permeability test method.

American Standard

ASTM E 84 (UL 723)
Test method for Surface Burning Characteristics of Building materials. The test evaluates the spread of flame along the surface of the material. It is no t a resistance test.

ASTM E 1966 (UL 2079)
Test method for Fire-Resistive Joint Systems. This test is used to evaluate the performance of a joint af ter a cyclic movement test and fire exposure test. UL 2079 - equivalent.

ASTM E 814 (UL 1479)
Test method for Fire Tests of Through Penetrations Fire Stops. This test is used to evaluate the performance of a firestop system, following fire exposure a hose s tream test is conducted. UL 1479 - equivalent.

		Marks					Application									Page
BS 8414	ASTM E 2307	CE Marking	UL EU	UL US	FBC	FM	Construction joint	Perimeter joints	Metallic pipes	Insulated pipes	Non-metallic pipes	Cable and cable trays	Air ducts	Insulated air ducts	Rainscreen cavity barrier	
–	–	●	●	●	–	–	●	–	●	–	–	●	–	–	–	4
–	–	–	–	●	●	–	●	–	●	●	●	●	●	●	–	6
–	–	●	●	–	–	–	●	–	–	–	–	–	–	–	–	8
–	●	–	–	●	–	●	●	●	●	–	–	●	●	–	–	11
–	–	●	●	–	–	–	●	●								14
–	–	–	–	●	●	●	●	–	●	●	●	●	●	●	–	16
–	–	●	●	–	●	–	–	–	●	●	●	●	–	–	–	19
–	–	●	–	●	–	–	–	–	–	–	–	–	–	–	–	21
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–	–	–	–	●	●	●	–	–	●	●	●	–	–	–	–	26
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–	–	–	●	–	–	–	–	–	–	–	●	–	–	–	–	31
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●	–	–	–	–	–	–	–	●	–	–	–	–	–	–	●	42
●	–	●	–	–	–	–	●	–	–	–	–	–	–	–	●	45
–	–	●	–	–	–	–	●	–	–	–	–	–	–	–	–	47
–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	49

DIN 4102:Part1
Fire behaviour of building material and elements - Part 1: Building materials, concepts.

FM Approvals is an international leader in third-party certification and approval of commercial and industrial products.

UL-EU Mark is intended for use on products destined for the European marketplace.

UL is an abbreviation for Underwriters Laboratories Inc. which is an independant, not for profit product safety testing and cer tification organisation.

NFPA 285
Sandard Fire Test Method for Evaluation of fire propagation characterisitcs of exterior wall assemblies containing combustible components

European Technical Approval/Assessment Issued by a European approval authority (e. g. DIBt) on the basis of the guidelines for European technical approvals (ETAG). ETA (English): European Technical Approval/Assessment. CE: The CE marks the conformity of the product to all applicable legal provisions in which their installation is intended. This means that the CE mark only certifies that the requirements determined in the relevant harmonisation legal provisions of the union have been complied with. Products with the CE mark can be freely traded in the European Economic Market.

FBC™ System Compatible indicates that this product has been tested, and is monitored on an ongoing basis, to assure its chemical compatibility with FlowGuard Gold®, BlazeMaster® and Corzan® pipe and fittings. FBC™, FlowGuard Gold®, BlazeMaster® and Corzan® are licensed trademarks of The Lubrizol Corporation.

Calculation of consumption guide.

Calculation for mastic/sealant

a = Hole diameter in mm
b = Depth of sealant in mm/wet film thickness for spray material (see recommendations)
c = Pipe or bunched cables diameter in mm
d = Annular space in mm (see r ecommendations)
l = Length of square opening/joint
w = Width of square opening/joint
h = Cartridge or spray bucket size in ml
n = Number of holes
e = Area of hole in mm^2 = π(a ÷ 2)2
f = area of pipe in mm^2 = π (a ÷ 2)2
g = Amount of mastic needed per hole in ml = ((e-f) x b) ÷ 1,000

Professional App

The Mobile Guide to Fixing Solutions for Professionals.
The Firestop module in the app offers the possibility to calculate the quantity (Calculation of consumption) automatically.

Round holes

No. of cartridges needed = n x (g ÷ h)
Area of hole e = π x $(a ÷ 2)^2$ mm^2
Area of pipe f = π x $(c ÷ 2)^2$ mm^2
Mastic volume = g = ((e-f) x b) ÷ 1,000 ml

Example:
a = 90 mm, b = 40 mm, c = 50 mm, h = 310 ml, n = 20

e = 3.14 x 452 = 6,361.73 mm^2
f = 3.14 x 252 = 1,963.50 mm^2
g = ((6,361.73 - 1,963.50) x 40) ÷ 1,000 = 175.92 ml

No. of cartridges = 20 x (175.92 ÷ 310) = 11.35 cartridges

Square holes

No. of cartridges needed = n x (g ÷ h)
Area of hole e = l x w mm^2
Area of pipe f = π x $(c ÷ 2)^2$ mm^2
Mastic volume = g = ((e-f) x b) ÷ 1,000 ml

Example:
l = 90 mm, w = 100 mm, b = 40 mm, c = 50 ml, h = 310 ml, n = 20

e = 90 x 100 = 9,000 mm^2
f = 3.14 x 252 = 1,963.50 mm^2
g = ((9,000 - 1,963.50) x 40) ÷ 1,000 = 281.46 ml

No. of cartridges = 20 x (281.46 ÷ 310) = 18.1 cartridges

Linear joints

No. of cartridgesbuckets =(g ÷ h)
Area of joint = e = l x w mm^2
Mastic volume = ((e-f) x b) ÷ 1000 ml = g

Example for mastic/sealant:
w = 20 mm, l = 30m = 30,000 mm b = 10 mm, h = 310 ml

e = 20 x 30,000 = 60,000 mm^2
g = (60,000 x 10) ÷ 1,000 = 6,000 ml

No. of cartridges = (6,000 ÷ 310) = 19.4 cartridges

Example of joint Spray:
w = 100 mm, w1 = 125 mm (with overspray)
l = 300 m = 300,000 mm
b = 1.5 mm
h = 19 litres = 19,000 ml

e = 125 x 300,000 = 37,500,000 mm^2
g = (37,500,000 x 1.5) ÷ 1,000 = 56,250 ml

No. of buckets = (56,250 ÷ 19,000) = 2.96 buckets

fischer Training certification.

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- Fire testing standards
- Product selection criteria
- Trade and a Application areas
- Practical installations

Locations and dates

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01th November 2022, Waldachtal

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„The correct installation of fischer FireStop products“

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- FiPW Pipe Wrapp
- FFC Collar
- FFRS Silicone Sealent
- FFFC Compound
- FIP Pillow
- PBB FireStop Block
- FBS Graphite Foam

And agrees to adhere to the fischer FireStop Professional Ethics (FFPE).*

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Marion Leipersberger
Product Manager
FireStop

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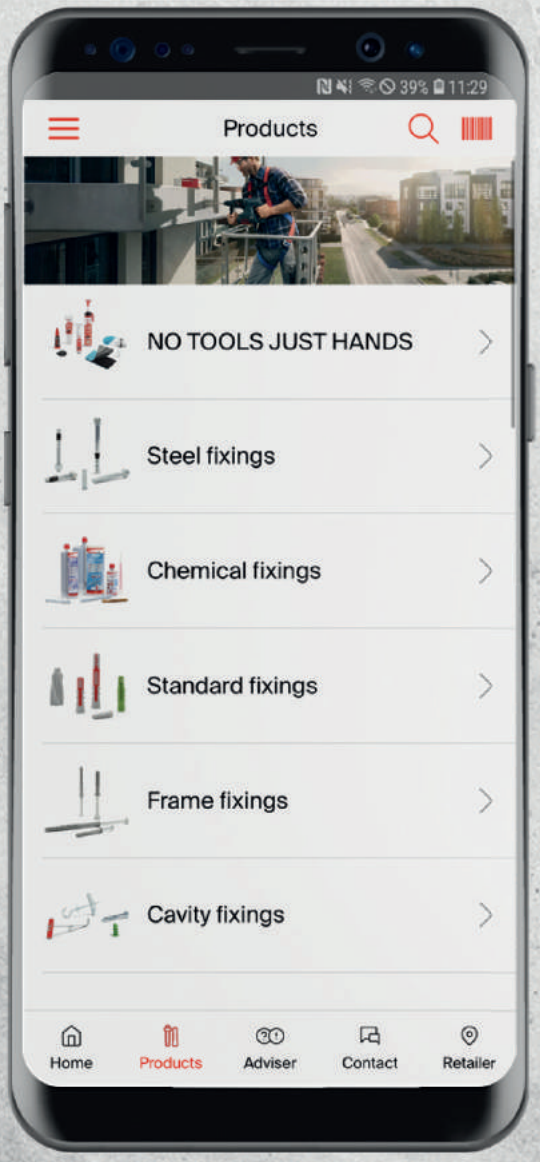

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Engineering judgement request form.

Project name: _____ Requested by: _____

Consultant: _____ Company: _____

Contractor: _____ E-Mail: _____

Contact: _____ Phone: _____

Email: _____ Supplier: _____

Phone: _____ fischer Engineer: _____

Fire rating requirements

F - Rating (HR): _____ T - Rating (HR): _____ Approval type: (BS, ETA, UL) _____

Through penetration

Assembly details: ☐ Wall ☐ Floor

Base material: ☐ Concrete ☐ Masonry/Blocks ☐ Drywall Thickness: _____

Opening details: _____ Size: Sleeved: ☐ Yes ☐ No Sleeve type: ☐ PVC ☐ Steel

Penetration details:

_____			Insulation
_____	Size	Material/Type	Insulation
_____	Size	Material/Type	Insulation
_____	Size	Material/Type	Insulation
_____	Size	Material/Type	Insulation
_____	Size	Material/Type	Insulation

Others: _____

Joints

Joint type: ☐ Head of wall ☐ Blocks ☐ Concrete ☐ Blocks ☐ Wall to wall ☐ Perimeter joint

Base material: ☐ Concrete ☐ Blocks ☐ Steeldeck ☐ Drywall

Doint details: ☐ Static ☐ Dynamic ☐ Width: _____

Movement required: _____ Curtain wall details: _____

Special conditions/comments/drawings/standards

_____

For questions please contact: firestop@fischer.de

4
Service

Content

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Products for use in fixing technology.

The fixing catalogue offers many facts and helps with quick and safe product selection, e.g.:

- Produktbeschreibungen mit Vorteile/Nutzen im Überblick
- Tips for installation
- Application aids
- Detailed technical data and drawings
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